THE YOUTH IN ICELAND MODEL AND ICELANDIC ADOLESCENT MENTAL HEALTH

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ABSTRACT

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Over the last 20 years, Iceland has made major progress in reducing substance use among its youth. Many credit this impressive reduction to implementation of the Youth in Iceland (YiI) Model. YiI programming aims to prevent substance use by increasing youth social support through strengthening family relationships, peer relationships, community connection, and community engagement. It involves a wide variety of relevant stakeholders, including policymakers, teachers, parents, and youth workers. Specific programming ranges from recreational sports teams to parental neighborhood watches.

While studies have indicated that YiI programming has greatly reduced substance use among youth, new data have suggested that mental health problems are rising among Icelandic adolescents. Despite an increase in the prevalence of mental health problems, no studies have explored the impact of YiI programming on Icelandic youth mental health.

This mixed-methods project consisted of three studies that evaluated the effect of YiI Model programming on Icelandic adolescent mental health. In the first study, a

secondary data analysis of cross-sectional YiI Survey data of all 8th to 10th grade students enrolled in Icelandic public schools was performed to explore the relationship between the YiI Model components and self-reported mental illness symptoms. The annual transnational YiI Survey collects data on demographics, behavior, and other social variables. In the second and third studies, focus groups and interviews were conducted with adolescents and key stakeholders to collect feedback on the YiI Model programming and identify barriers and resources for adolescent mental health. For the secondary data analysis of the YiI Survey data, a multivariate logistic regression model was constructed to relate YiI and mental health scores, including terms for covariates that may confound or bias. To supplement the quantitative component, a content analysis of the transcribed focus groups and interviews was performed to elucidate key themes and patterns surrounding Icelandic adolescent mental health and the YiI model.

Study results suggest that more engagement in the YiI programming may be associated with fewer symptoms of anxiety and depression. Focus group and interview results pointed to a possible fifth YiI Model domain, and highlighted barriers to adolescent mental healthcare.

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INTRODUCTION

Adolescent mental health is a growing concern in Iceland. Studies and government data have indicated a spike in usage of mental health resources among young people, long waiting lists for appointments with mental health professionals, and an increase in prescriptions for psychotropic drugs for adolescent patients (Gudmundsdottir & Vilhjalmsson, 2010; Gunnlaugsson, Kristjansson, Einarsdottir, & Sigfusdottir, 2011; Sigfusdottir, Asgeirsdottir, Sigurdsson, & Gudjonsson, 2008; Thorisdottir, Asgeirsdottir, Sigurvinsdottir, Allegrante, & Sigfusdottir, 2017; Vilhjalmsson & Gudmundsdottir, 2014).

Over the past decade, there has been an increase in the number of Icelandic children visiting psychiatrists and psychologists, a rise in prescriptions for psychotropic medications, and a surge in demand for inpatient pediatric psychiatric care (Gudmundsdottir & Vilhjalmsson, 2010; Vilhjalmsson & Gudmundsdottir, 2014). Compared to other nations, studies have indicated that Icelandic youth are struggling. The European Social Survey (ESS), a survey conducted in 29 countries, found that 17% of Icelandic adolescents aged 15-18 reported that illness, disability, infirmity, or mental health problems had affected their daily activities. ESS results revealed that 47% had felt depressed “at least some of the time” in the previous week, and 52% reported feeling

anxious “at least some of the time” in the previous week (Hibell & Bjarnason, 1997). The percentage of Icelandic students who reported feeling anxious and depressed was higher compared to other Nordic countries.

Iceland has established youth development programming to address adolescent issues based on the Youth in Iceland (YiI) Model. Over 20 years ago, researchers at Reykjavik University’s Icelandic Centre for Social Research and Analysis (ICSRA) launched a nation-wide, multilevel, multi-stakeholder program for youth aimed at reducing substance use (Kristjansson, Sigfusdottir, & Allegrante, 2013; Kristjansson, Sigfusson, Sigfusdottir, & Allegrante, 2013; Sigfusdottir, Kristjansson, Gudmundsdottir, & Allegrante, 2011; Sigfusdottir, Thorlindsson, Kristjansson, Roe, & Allegrante, 2009). The YiI Model contains four domains that impact adolescent well-being, including: (a) strong relationship with family, (b) strong relationship with friends, (c) strong relationship with community, and (d) community engagement (Sigfusdottir et al., 2009).

Community programming designed by the ICSRA included renewable contracts between the ICSRA and Icelandic municipalities (aimed to reduce adolescent substance use); collaborative coalitions between ICSRA researchers and key stakeholders in the communities (e.g., policymakers, community leaders, practitioners, parents); and individualized annual reports to each municipality to communicate trends identified by the YiI survey. The annual reports were paired with an action plan to be presented at a local community meeting. This multilevel community programming, starting in 1996, has ranged from encouraging more parental monitoring (through neighborhood watch groups) to increased number of afterschool recreational activities (Sigfusdottir et al., 2009; Sigfusdottir et al., 2011). The programming operationalized each of the four

components. For example, to strengthen family relationships, schools created more messaging to encourage more parental involvement and introduced community parenting classes. To improve neighborhood relationships, local communities instituted neighborhood watches to keep tabs on young people. Finally, to increase youth participation in activities, the Icelandic government allocated more funding to youth centers, organized adult-supervised sports and art programs, and awarded families stipends to fund children's enrollment in activities. The ICSRA also began conducting an annual, population-wide, cross-sectional survey to monitor trends in adolescent substance use and other health behaviors starting in March, 1997, called the YiI Survey (Kristjansson, Sigfusson, et al., 2013; Sigfusdottir, Kristjansson, Thorlindsson, & Allegrante, 2008).

While this model and programming have the potential to address the growing issue of adolescent mental health, thus far, the vast majority of published studies has focused on the YiI Model and adolescent substance use. Until now, no qualitative or other studies have sought to investigate the model's impact on adolescent mental health.

Problem Statement

What has been the effect of the YiI Model programming on Icelandic adolescent mental health?

Purpose of the Study

For decades, the Icelandic community has invested time and money into policies and programming to strengthen the YiI Model and its programming, with the assumption

that this set of domains has resulted in better health outcomes for their youth. While substance use has decreased among Icelandic youth, mental health issues have risen dramatically (Sigfusdottir et al., 2011; Sigfusdottir, Kristjansson, et al., 2008). So far no published studies have assessed the effect of the YiI Model and programming specifically on adolescent mental health outcomes in Iceland. Furthermore, no existing studies have evaluated the model and programming through the collection of qualitative data. To address this gap, the purpose of this study was to evaluate the effect of the YiI Model and programming on Icelandic adolescent mental health.

Specific Aims

The specific aims of this study were to:

1. explore the relationship between Icelandic youth participation in the YiI Model programming and self-reported symptoms of anxiety and depression;
2. explore Icelandic adolescents' attitudes and opinions surrounding the YiI Model, programming, and mental health;
3. clarify key stakeholders' attitudes and opinions of the YiI Model, programming, and Icelandic adolescent mental health; and
4. identify resources and barriers to improving Icelandic adolescent mental health.

Theoretical Perspective

The ICSRA designed programming with several key social science theories in mind (Sigfusdottir et al., 2011). The social support theory provides a framework to

understanding the YiI Model's positive effect on adolescent mental health explored in this series of studies (see Figure 1).

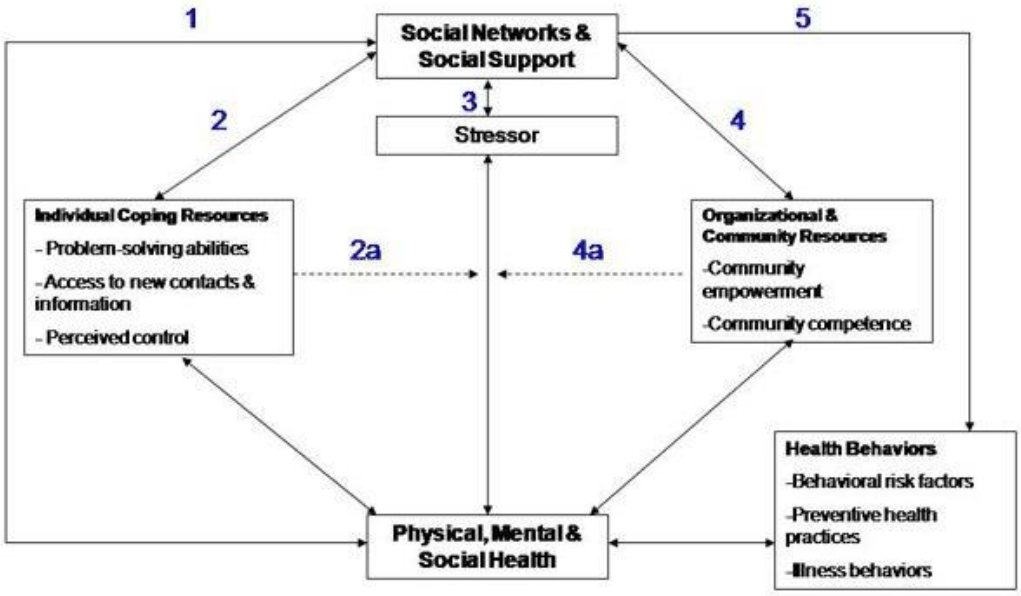

Figure 1. Social support theory: A conceptual model for the relationship between social support and health.

The construct of social support has been defined as the function and effect of relationships, or as the collection of relationships of an individual that provides resources and norms (Berkman, 1995; Cohen, McGowan, Fooskas, & Rose, 1984; Cohen & Wills, 1985; Kawachi & Berkman, 2001; Morgan, Burns, Fitzpatrick, Pinfold, & Priebe, 2007; Thoits, 1995). There is strong evidence that increased social support is positively and causally related to improved physical and mental health (Baumgartner & Burns, 2014; Bovier, Chamot, & Perneger, 2004; Broadhead et al., 1983; Thoits, 2011). Several studies have explored the protective effect of social support on mental health. These studies found that increased social support is associated with reduced risk of major depression,

and reduced number of depressive symptoms in various communities, among men and women, and across a range of age groups (Bovier et al., 2004; McPherson et al., 2014).

One hypothesized pathway of the effect of social support postulates that social support fulfills the basic human need for socialization and companionship, which in turn improves health and well-being and protects against the deleterious effects of stress. This pathway is called the "buffering effect" (see Figure 1, Paths 2a and 4a) (Cohen et al., 1984; Cohen & Wills, 1985). Many studies designed with this underlying theoretical framework have resulted in improved individual and community health (McPherson et al., 2014). Path 3 illustrates how social support may impact a person's exposure to stress, while Path 5 shows how social support may affect a person's health behaviors. Both indirect and direct pathways have been used to explain the positive effect of social support on mental health. The direct effect (protective) pathway illustrates how social support improves health behaviors, increases positive feelings, and improves emotional regulation. The indirect (mediation) pathway shows how social support alleviates the negative effects of stress (Cohen & Wills, 1985).

Significance of the Study

This study will bring much needed attention to adolescent mental health in Iceland and raise awareness of the barriers to and resources for improving Icelandic adolescent mental health. Results from this study promise to elucidate what participants and stakeholders perceive to be the active ingredients of Icelandic culture and the YiI Model programming that are beneficial to adolescent mental health. Thus, the data and observations from this study could result in the adoption of aspects of the framework in

other communities in need of improving adolescent mental health. Moreover, the results of this work should help clarify the current mental health status and needs of Icelandic youth, and better inform national and local policies, Icelandic healthcare organizations, and the Icelandic public education system. Finally, the insights that emerge through the qualitative interviews will give voice and narrative to youth and adolescent key stakeholders regarding mental health and provide important context to the quantitative components of the study.

Definition of Key Terms

Iceland - A Nordic island country with a population of about 330,000 people; the most sparsely populated country in Europe.

Nordic Countries - A region in Northern Europe consisting of Greenland, Finland, Iceland, Norway, Sweden, the Faroe Islands, and the Aland Islands.

Youth in Iceland (YiI) Model - An evidence-based, multilevel adolescent substance use prevention program involving a wide range of relevant stakeholders, including policymakers, teachers, parents, and youth workers aimed to increase social support developed by Reykjavík University's Icelandic Centre for Social Research and Analysis (ICSRA).

Youth in Iceland Survey (YiI Survey) – An annual nation-wide survey that began in 1997 and mailed by the ICSRA to all 8th-12th grade students enrolled in Icelandic public schools to collect information about demographics, behavior, and social variables.

Delimitations

The following delimitations applied to this study:

1. Data for the first component, the quantitative data analysis, was a secondary analysis of data collected by the YiI Survey in lieu of conducting a new survey. A secondary data analysis was necessary due to constraints on time and resources and the desire to utilize existing data more fully and in a novel way.
2. Key stakeholder interview participants were recruited via a combination of convenience, purposive, and snowball sampling methods. This recruitment method was appropriate due to time and resource constraints, and because the study goal was to collect data and observations from a specialized group of people. This recruitment method, however, may have affected the generalizability of these findings to the larger population from which the sample was drawn.
3. Focus groups were conducted in selected public schools inside and outside the greater Reykjavik capital region, but not every public school was included because of time and resource constraints. This may also have affected the generalizability of the findings.

Conclusion

This study aimed to address several gaps in the literature, including collecting qualitative data about the YiI Model and exploring the impact of the YiI Model programming on anxiety and depression symptoms among youth. Achieving these study

aims are imperative to obtain an accurate picture of adolescent mental health in Iceland, design effective policies and programming, and positively influence adolescent mental health in Iceland. This chapter outlined the problem, purpose, and aims of the study, as well as the overarching background and theoretical framework that informed this research.

Chapters II, III, and IV contain each of three related papers that address the four study aims. Chapter II contains the first paper, titled "Impact of the Youth in Iceland Model Programming on Self-reported Symptoms of Anxiety and Depression." Chapter III presents the second paper, "Icelandic Adolescents' Perspectives on the Youth in Iceland Model and Mental Health." Chapter IV contains the third paper, titled "Key Stakeholders' Perspectives on the Youth in Iceland Model and Adolescent Mental Health." Chapter V concludes with a synthesis of the three studies and a discussion of how this work adds to the literature on adolescent mental health and what has been learned about successful approaches to the prevention of adolescent mental health problems.

Chapter II

PAPER 1:

IMPACT OF YOUTH IN ICELAND MODEL PROGRAMMING ON SELF-REPORTED SYMPTOMS OF ANXIETY AND DEPRESSION

Abstract

The prevalence of adolescent depression and anxiety in Iceland has increased in recent years. This study evaluated the impact of the Youth in Iceland (YiI) Model programming on self-reported symptoms of anxiety and depression among adolescents using data from the 2016 YiI Survey, a national school-based survey that annually collects data on health, behaviors, and social factors. A YiI score was developed to capture student participation in YiI Model programming and an anxiety/depression symptom score, summing the number of self-reported symptoms of anxiety and depression. The researcher calculated mean anxiety/depression and YiI scores by different demographic variables and compared them using t-tests and ANOVA. Last, the researcher related the YiI and the depression/anxiety scores using multinomial logistic regression, controlling for possible confounders. Analysis of the final dataset of 10,687 students revealed that a lower YiI score was significantly associated with a higher anxiety/depression score (mean anxiety/depression score for the lowest vs. highest YiI score categories was 1.47 vs. 2.16, $p < 0.001$). The YiI score was inversely related to the

anxiety/depression score (adjusted OR for the anxiety/depression score comparing the high vs. low YiI score categories was 0.23, $p < 0.001$). Exposure to YiI programming is associated with lower self-reported symptoms of anxiety and depression among Icelandic adolescents.

Introduction

Adolescent mental health is a growing issue internationally and has a significant impact on the global disease burden (Ferrari et al., 2013; Global Burden of Disease et al., 2017; Lozano et al., 2012; Mokdad et al., 2016; Wang et al., 2012). Over 20% of youth suffer from mental illness (World Health Organization [WHO], 2016) and studies have indicated that this number is growing (Collishaw, Maughan, Goodman, & Pickles, 2004; Klerman & Weissman, 1989; Twenge, 2000; Weissman & Klerman, 1992). Annually, over 800,000 people die due to suicide, now one of the leading causes of death globally among adolescents (WHO, 2016). Consequently, addressing adolescent mental health is key to improving global health. Iceland has done admirable work in combatting substance abuse among youth (Kristjansson, James, Allegrante, Sigfusdottir, & Helgason, 2010; Kristjansson, Sigfusdottir, et al., 2013; Kristjansson, Sigfusdottir, Allegrante, & Helgason, 2008; Sigfusdottir et al., 2011; Sigfusdottir, Kristjansson, et al., 2008; Sigfusdottir et al., 2009).

Over 20 years ago, the 1995 European School Survey Project on Alcohol and other Drugs (ESPAD) revealed that Icelandic youth self-reported one of the highest frequencies of binge drinking and alcohol-related injuries and accidents than any other European country (Hibell & Bjarnason, 1997). In response, the country's leaders and

researchers at Reykjavik University's Icelandic Centre for Social Research and Analysis (ICSRA) banded together to launch a nation-wide, multilevel, multi-stakeholder program aimed at reducing adolescent substance use, the Youth in Iceland (YiI) Model programming (Sigfusdottir et al., 2009; Sigfusdottir et al., 2011).

The YiI Model programming consists of four domains that have been shown to influence youth behavior and substance use: (a) relationship with family, (b) relationship with friends, (c) relationship with community, and (d) community engagement (Sigfusdottir et al., 2009; Sigfusdottir et al., 2011). The YiI Model programming operationalizes each of these tenets. For instance, to strengthen family relationships, Icelandic public schools created more messaging to encourage parental involvement and introduced community parenting classes. To address the goal of increasing youth participation in community activities, the Icelandic government allocated more funding to youth centers, organized adult-supervised sports programs, and awarded families annual stipends to fund enrollment in activities (Sigfusdottir et al., 2009; Sigfusdottir et al., 2011).

Over the next 2 decades, Iceland observed reductions in adolescent substance use nationwide (Kristjansson, James, et al., 2010; Kristjansson et al., 2016; Sigfusdottir et al., 2011; Sigfusdottir, Kristjansson, et al., 2008). For example, studies have found that experimentation and use of alcohol, tobacco, and cannabis dropped 60% nationwide among Icelandic youth since 1998, coinciding with the initiation of programming (Sigfusdottir, Kristjansson, et al., 2008). Similar downward trends were observed among youth related to self-reported drunkenness and smoking. Other studies discovered a rise in factors that confer protection against substance use, such as increased parental

monitoring (Eithsdottir, Kristjansson, Sigfusdottir, & Allegrante, 2008; Kristjansson, James, et al., 2010; Kristjansson, Sigfusdottir, & Allegrante, 2010; Kristjansson et al., 2016).

Unfortunately, 20 years after successfully addressing youth substance use, the Icelandic community is facing its next challenge—adolescent mental health. There is growing concern over deteriorating emotional health among Icelandic youth. Societal leaders have cited growing issues of delinquency in schools due to acute anxiety and depression. Government data have highlighted a spike in prescribing psychotropic drugs to young people (Vilhelmsson, 2013; Vilhelmsson, Svensson, & Meeuwisse, 2013). The medical community is concerned over an increase in youth admissions to hospitals and psychiatric wards, and has also cited the long waiting lists for children to see mental health professionals (Gudmundsdottir & Vilhjalmsson, 2010; Sigfusdottir, Asgeirsdottir, et al., 2008). Furthermore, recent research has indicated that anxiety and depression are growing issues among young people in Iceland (Asgeirsdottir & Sigfusdottir, 2015; Olafsdottir, 2017; Sigfusdottir, Asgeirsdottir, et al., 2008; Thorisdottir et al., 2017). This has led the Icelandic community to once again look to the YiI Model and its programming as a possible solution to address this youth issue.

The purpose of this study was to assess the impact of participating in the YiI Model programming on Icelandic adolescent self-reported symptoms of anxiety and depression. Using YIL Survey data, the researcher created a YiI Model score variable to represent participation and conducted a secondary data analysis to investigate the impact of participation in the YiI programming. The researcher hypothesized that higher self-reported participation in the YiI Model programming (represented by a higher YiI Model

score) would be associated with a lower number of self-reported symptoms of anxiety and depression.

Methods

This research question was explored through a secondary data analysis of the YiI Survey data, which is cross-sectional data collected by the ICSRA during an annual, nation-wide survey of all 8th-12th grade students enrolled in Icelandic public schools. This paper-based survey collects data and information on demographics, behavior, and social variables. This study included data from 8th, 9th, and 10th grade students.

Settings and Participants

The ICSRA has administered an annual, anonymous paper-based surveys to every student present at *grunnskóli* (compulsory public school) on a designated day during the month of March since 1997. On March 17, 2016, all 8th, 9th, and 10th grade students attending class in all Icelandic public schools completed the questionnaire under the supervision of their teacher and an ICSRA research assistant (Kristjansson, Sigfusson, et al., 2013; Sigfusdottir et al., 2011). No attempts were made to reach students who were absent on the day of the survey. For more details on YiI Survey methods, see Kristjansson, Sigfusson, et al. (2013).

Instruments and Measures

The 2016 YiI Survey collected information about home life, family and relationships, school life, risky behaviors, afterschool activities, emotional and physical

health. The survey contained multiple-choice questions and a response rate of 85% (Kristjansson, Mann, & Smith, 2017).

Dependent variables.

Depression and anxiety symptoms scores. The YiI Survey asked participants how often they felt symptoms of anxiety and depression, and answer choices included a 4-point rating scale, ranging from "0: Never" to "3: Often." Participants earned 1 point towards the depression and anxiety symptom score every time they chose the answer choice "often" for a question about feeling a symptom of depression or anxiety. The researcher created three scores of self-reported mental illness symptoms: A depression symptoms score that was created by summing variables asking participants about their symptoms of depression; an anxiety score that was created by summing variables related to self-reported anxiety; and a composite depression and anxiety symptoms score that was created by summing the number of self-reported symptoms of depression and anxiety.

The 2016 YiI Survey contained 10 questions asking participants about depression symptoms. These 10 items were pulled from the Derogatis, Lipman, Covi, and Rickels (1971) Depression Dimension Scale. Participants were asked how often during the previous week the following statements applied to them: "I was sad or had little interest in doing things," I had little appetite," "I felt lonely," "I had sleeping problems," "I cried easily or wanted to cry," "I felt sad or blue," "I was not excited in doing things," "I was slow or had little energy," "The future seemed hopeless," and "I thought of committing suicide." When combined into the Derogatis Depression Dimension Scale, the

Cronbach's alpha was 0.90 (Sigfusdottir, Asgeirsdottir, et al., 2008; Thorisdottir et al., 2017).

The YiI Survey questions evaluating anxiety consisted of three items pulled from the Derogatis et al. (1971) Anxiety Dimension Scale. Participants were asked how often during the previous week they had experienced the following: "Nervousness or shakiness inside," "Being suddenly scared for no reason," and "Feeling tense or keyed up." When the answer choices were combined into the scale, the Cronbach's alpha was 0.75 (Sigfusdottir, Asgeirsdottir, et al., 2008; Thorisdottir et al., 2017).

Independent variables.

YiI Model score. The researcher compiled YiI Survey questions that tapped into each of the four YiI model domains: (a) strong relationship with family, (b) strong relationship with friends, (c) strong relationship with the community, and (d) community engagement (see Appendix A for a comprehensive list of variables). Participants earned 1 point towards the score for answering "Yes" or "Often" to survey questions associated with each of the four YiI Model components (see Appendix A for further detail and example calculation). Decades of research have indicated that each of these domains do not have equal impact on adolescent well-being (Babiss & Gangwisch, 2009; Essex et al., 2006; Fatori, Bordin, Curto, & de Paula, 2013; Harding et al., 2015; Kim et al., 2012; Sederer, 2016; Shim & Compton, 2018; Stirling, Toumbourou, & Rowland, 2015; Viner et al., 2012). In order to determine appropriate weights for each of the four domains in the YiI score, the researcher surveyed experts. A modified Delphi consensus survey was distributed via email, surveying 15 experts on Icelandic youth and mental health to determine the best weights for each domain (see Appendix B for more detail).

Gender. Gender was coded 1 for girls and 0 for boys.

Family financial status. The researcher controlled for family financial status by including the question "How often is the following statement true: My parents are poor-off financially" in this analysis. Response categories included: "Almost never," "Rarely," "Sometimes," "Very Often," and "Always."

Place of residence. Approximately 60% of the population of Iceland resides within the capital region of Reykjavik (Arnbjörnsdóttir, 2017). Since availability and choices of youth programming as well as access to healthcare ranges between regions, the researcher included a variable in the analysis coded 1 if a participant's school was located in the capital area, and 0 if a participant's school was located outside the capital area.

Study Procedures

Since 1997, the ICSRA has administered the YiI Survey to all 8th-12th grade students enrolled in Icelandic public schools to collect data on behavioral and social factors (Kristjansson, Sigfusson, et al., 2013). A total of 129 schools (96% of all schools in Iceland) participated in the 2016 survey (Kristjansson et al., 2017). Valid answers were obtained from approximately 86% of the total population of eligible students enrolled in school at that time (Kristjansson et al., 2017). No attempts were made to reach students who were absent the day of the survey. More details on the methods have been published elsewhere (Kristjansson, Sigfusson, et al., 2013).

Data Analysis

Formal statistical analysis was conducted using the Statistical Package for the Social Sciences (SPSS). The researcher calculated the frequencies of different

demographic variables and also tabulated the mean YiI Model and depression/anxiety symptoms scores by different demographic variables, then compared the scores within categories using t-tests and ANOVA. In addition, the researcher used multinomial logistic regression to examine the relationship between the YiI Model score and the self-reported depression and anxiety scores. Finally, the researcher adjusted for covariates such as age, sex, school location, and other factors that may have confounded or biased the relationship between the YiI Model domains and self-reported mental illness symptoms.

Results

The final study population included 10,687 adolescents—49.6% boys and 50.4% girls. The majority of youth reported they resided in the capital region (62.1%) and that their parents were "almost never" or "rarely" poor-off financially (85.1%) (see Table 1). Table 2 displays the overall mean YiI and anxiety/depression symptom scores, and the mean scores stratified by demographic variables. The overall mean YiI score was 6.14, while the mean overall anxiety/depression symptom score was 3.15. Girls had significantly higher mean scores than boys (mean YiI score for girls = 6.39 vs. boys = 5.94, $p < 0.001$; mean anxiety/depression score for girls = 4.30 vs. boys = 1.97, $p < 0.001$). The researcher observed an inverse trend of mean scores across financial status categories. In addition, there were higher mean YiI scores within the higher categories of self-reported financial status, and higher anxiety/depression symptom scores within the lower categories of financial status. Participants who reported that their parents were "almost never" poor-off financially had a mean YiI score of 6.48, compared to 4.32—the

mean score of participants who reported their parents "always" being poor-off financially ($p < 0.001$).

Table 1

Characteristics of 2016 YiI Survey Participants 8th-10th Grade (N = 10,687)

Variable	n (%)
Gender	
Boys	5296 (49.6)
Girls	5284 (49.4)
Location	
In Capital Region	6641 (62.1)
Outside Capital Region	4046 (37.9)
Financial Status How often is the following true, "My parents are poor-off financially"	
Almost Never	6687 (62.6)
Rarely	2409 (22.5)
Sometimes	997 (9.3)
Very Often	276 (2.6)
Always	99 (0.9)

On the other hand, participants who reported that their parents were "almost never" poor-off financially self-reported a mean anxiety/depression score of 2.40, compared to 7.67 reported by participants whose parents were "always" poor-off financially ($p < 0.001$). No marked differences were observed between participants attending school within and outside the capital region.

Table 2

Comparing Mean Youth in Iceland Participation Score, and Depression/Anxiety Symptom Score by Demographics (N = 10,687)

	Mean YiI Score	**Mean Anxiety/Depression Symptom Score**
Total	6.14	3.15
Sex[***]		
Boys	5.94	1.97
Girls	6.39	4.30
Location[***]		
In Capital Region	6.15	3.05
Outside Capital Region	6.13	3.32
Financial Status[***] How often is the following true, "My parents are poor-off financially"		
Almost Never	6.48	2.40
Rarely	6.07	3.72
Sometimes	5.34	5.35
Very Often	4.87	7.01
Always	4.32	7.67

[***]T-tests comparing binary variables and ANOVA testing categorical variables show difference between means significantly different ($p < 0.001$).

Table 3 displays the odds ratios for the multinomial logistic regression relating the YiI score (predictor variable) and the anxiety/depression scores (outcome). The odds of reporting anxiety and depression symptoms (composite and separate scores) decreased markedly with increasing participation in the YiI Model (indicated by a higher YiI score); this trend persisted after adjustment for possible confounders. The adjusted OR for

reporting a high number of anxiety and depression symptoms (≥9 symptoms) vs. reporting none was 0.47 (95% CI: 0.45, 0.50; $p < 0.001$) adjusting for gender, school location, and financial status (see Table 3).

Table 3

Odds Ratios and 95% Confidence Intervals for Self-reported Depression and Anxiety Symptoms by YiI Score (N = 10,687)

	Predictor YiI Score[b]	OR (95% CI) for Self-Reported Depression and Anxiety Symptoms[a]			
		None Reported	**Low** (1-4 symptoms)	**Medium** (5-8 symptoms)	**High** (9+ symptoms)
Composite Score	**Unadjusted**	Reference	0.88 (0.85, 0.92)***	0.76 (0.73, 0.79)***	0.64 (0.62, 0.67)***
	Adjusted[c]	Reference	0.76 (0.73, 0.79)***	0.60 (0.57, 0.63)***	0.47 (0.45, 0.50)***
Anxiety Score	**Unadjusted**	Reference	0.88 (0.85, 0.92)**	0.83 0.80, 0.87)***	0.74 (0.71, 0.78)***
	Adjusted[c]	Reference	0.83 (0.80, 0.86)***	0.75 (0.71, 0.78)***	0.65 (0.62, 0.68)***
Depression Score	**Unadjusted**	Reference	0.88 (0.70, 0.92)***	0.85 (0.82, 0.88)***	0.69 (0.44, 0.75)***
	Adjusted[c]	Reference	0.77 (0.71, 0.83)***	0.73 (0.66, 0.81)***	0.53 (0.37, 0.58)***

[a]Depression and Anxiety Symptoms composite score collapsed into four categories: None; Low (1-4 symptoms reported); Medium (5-8 symptoms reported); and High (9-12 symptoms reported)
[b]Participants earned 1 point towards the score for answering "Yes" or "Often" to survey questions associated with each of the four YiI Model domains: (a) strong relationship with family, (b) strong relationship with friends, (c) strong relationship with the community, and (d) community engagement (see Appendix A).
[c]Adjusted model included covariates for sex (M/F), location of participant's school (inside Capital Region: Y/N), and financial status (5 category)
***$p < 0.001$

Discussion

The variables associated with the YiI Model domains and programming were significantly associated with decreased odds of self-reported depression and anxiety symptoms among Icelandic adolescents. The association was independent of gender, school location, and parental financial status. The researcher also found that being a girl and reporting low financial status were significantly associated with less participation in the YiI programming and a higher number of anxiety and depression symptoms. The observed trend between the YiI exposure and anxiety/depression scores could be explained by other factors not explored in this study, such as family characteristics. Family characteristics, such as parental relationship status, could influence adolescents' mental health, as well as their level of participation in the YiI Model programming (Ogburn et al., 2010; Tompson, Connor, Kemp, Langer, & Asarnow, 2015). For example, single-parent status may be associated with increased adolescent depression (McLeod, Weisz, & Wood, 2007), while family conflict is thought to increase anxiety among youth (Kashani, Burbach, & Rosenberg, 1988). These factors should be explored further in future studies.

These results indicate that participation in the YiI programming is possibly associated with decreased to adolescent anxiety and depression. Since Icelandic adolescent mental illness is a growing concern, this present study not only adds to the growing literature on the YiI Model, but also raises questions about the impacts of the YiI programming on issues other than youth substance use. Moreover, it highlights an area of possible need—that is, the specific mental health support needs of Icelandic adolescent girls and youth from families struggling financially must be addressed. These results

align with previous research exploring adolescent mental health protective factors as well as previous research conducted in Iceland that noted increasing trends of depression and anxiety among youth (Asgeirsdottir & Sigfusdottir, 2015; Sigfusdottir, Asgeirsdottir, et al., 2008; Thorisdottir et al., 2017). For example, variables capturing sports participation and parental involvement contributed to the YiI score, and these concepts have been found to be protective against adolescent mental illness. Lindsay and Gangwisch (2009) explored whether increased participation in sports was associated with depression among adolescents. They found that as sports participation increased, the odds of suffering from depression decreased by 25%. Another published peer-reviewed study of adolescents reported that parental involvement was protective against self-reported mental illness symptoms (Harding, et al., 2015).

This study has several limitations, including the use of self-reported data collected in a school setting. Students may have misreported information due to lack of memory, which could skew results. Students also may have altered their answers to questions on sensitive topics since the survey was conducted at school in the presence of their teachers and classmates. However, many published studies have investigated the YiI Survey and found its results to be accurate in capturing information from youth (Kristjansson, James, et al., 2010; Kristjansson et al., 2016; Kristjansson, Sigfusdottir, Karlsson, & Allegrante, 2011; Sigfusdottir et al., 2009; Sigfusdottir et al., 2011).

The way the YiI and anxiety/depression scores were conducted is another limitation of this study. While the scores were created in an attempt to quantify and explore the relationship between mental health and the YiI Model, the researcher is aware that creating scores to represent these concepts is not ideal. The scores neither accurately

reflect the cumulative effect of the YiI Model nor the true nature of the participants' mental health status because mental health and the YiI model are not intuitively nor easily quantifiable. Furthermore, because the YiI survey did not include all depression and anxiety subscale items, the items could not be scored according to clinical diagnosis cut-offs. By exploring this relationship using quantitative data, the researcher likely missed important aspects of the relationship. However, this study and its results contribute as a call to action for more qualitative studies on the YiI Model and programming as well as adolescent mental health. The researcher also attempted to address some of the weaknesses of the YiI score by weighting the domains in the score based on results from a Delphi consensus survey of experts in Icelandic adolescent mental health.

Despite these limitations, this study has important strengths. For example, its addresses a key gap in the literature regarding the YiI Model and programming. Though the ICSRA launched the YiI Model and programming over 20 years ago, no study has explored its impact on youth mental health. Other strengths included this study's use of a robust, nationally representative study sample and data from a well-established survey consisting of validated measures.

Conclusion

The present study provides further insight into the impact of the YiI Model on Icelandic adolescent depression and anxiety and highlights possible high-need groups, such as young girls and adolescents from lower-income families. However, more work needs to be done to explore the context of these results. Qualitative study would help

improve our understanding of risk factors and protective factors to anxiety and depression among Icelandic youth.

Chapter III

PAPER 2:

ADOLESCENTS' PERSPECTIVES ON THE YOUTH IN ICELAND MODEL AND MENTAL HEALTH

Abstract

Anxiety and depression are increasingly prevalent among Icelandic youth. The aim of this study was to investigate Icelandic adolescents' views of mental health and the Youth in Iceland (YiI) Model domains and programming. Focus group interviews were conducted with 8th, 9th, and 10th grade students enrolled in public schools of the greater Reykjavik capital region of Iceland. Each focus group was conducted in Icelandic, and students were asked questions about the YiI Model programming, barriers to mental health care, and their views of adolescent mental health. All interviews were audio-recorded, transcribed, and translated into English before being analyzed. Altogether, 114 students participated in 16 focus groups at eight schools. Students cited stress as an issue for themselves and their peers and discussed positive coping mechanisms (e.g., talking with their friends) and negative coping mechanisms (e.g., restricting food and self-harm). All four YiI Model domains were perceived as helpful to fostering emotional well-being and participating in programming (e.g., sports teams) as beneficial to mental health. Students also reported low use of mental health resources, identifying several barriers to

getting care. The findings revealed that there are significant gaps in mental health resources for Icelandic youth. YiI programming needs to include more activities beyond competitive sports teams, school courses focusing on emotional self-regulation, and positive coping skills. The concept of emotional self-regulation may also constitute a possible fifth YiI Model domain.

Introduction

For 20 years, Iceland has served as a world leader in youth development. Dozens of peer-reviewed publications and media articles have spread the word of the Youth in Iceland (YiI) model's success (Kristjansson et al., 2016; Sigfusdottir, Kristjansson, et al., 2008). The YiI Model programming consists of multilevel, multisector programming aimed to reduce substance use among youth (Sigfusdottir et al., 2009; Sigfusdottir et al., 2011). Iceland has observed a remarkable drop in substance use among their youth coinciding with the introduction of the YiI Model programming (Kristjansson, James, et al., 2010; Kristjansson et al., 2016; Sigfusdottir, Kristjansson, et al., 2008). Researchers at the Icelandic Centre for Social Research and Analysis (ICSRA) annually conduct the YiI Survey, which collects information on self-reported adolescent demographics, behaviors, and social factors. Researchers have published studies using these data on a variety of topics, ranging from parental involvement and substance use to sports teams and obesity (Eidsdottir, Kristjansson, Sigfusdottir, Garber, & Allegrante, 2013; Eithsdottir et al., 2008; Kristjansson, Allegrante, & Sigfusdottir, 2018; Kristjansson, Sigfusdottir, & Allegrante, 2010; Kristjansson et al., 2008; Kristjansson, Sigfusdottir, Allegrante, & Helgason, 2009; Kristjansson, Sigfusdottir, James, Allegrante, & Helgason,

2010; Thorisdottir, Kristjansson, Sigfusdottir, & Allegrante, 2012). Thus far, all published studies on the YiI Model have been analyses of the YiI Survey data and reporting of research methodologies. Interestingly, no formal studies have explored the impact of the YiI Model and programming on Icelandic youth mental health, despite the presence of critical issues in Iceland and beyond. Recently, adolescent mental health has emerged as a growing issue in Iceland, as shown in government data and trends observed in the YiI Survey results (Asgeirsdottir & Sigfusdottir, 2015; Sigfusdottir, Asgeirsdottir, et al., 2008; Thorisdottir et al., 2017). Furthermore, no one has yet collected any qualitative data regarding the YiI Model and programming. Since adolescent mental health is a growing national issue, it is important to speak with youth to gain context for the collected data in order to address the issue effectively.

To address these gaps, the researcher conducted focus groups with adolescents throughout Iceland to discuss the mental health of Icelandic youth and their opinions of the YiI Model domains and programming. The aims of this study were twofold: (a) to clarify Icelandic adolescents' attitudes and opinions surrounding the YiI Model, programming, and mental health; and (b) to identify resources and barriers to Icelandic adolescent mental health.

Methods

Settings and Participants

The researcher conducted focus groups at different public schools in the capital region as well as outside the greater Reykjavik capital region of Iceland. Focus groups were conducted in a classroom at each respective school location, at randomly selected

schools inside the capital city of Reykjavik, in the suburbs of Reykjavik, and outside the capital region. Students were eligible to participate if they were enrolled in 8th, 9th, or 10th grade at the selected Icelandic public schools during the study period. Students who were younger than 8th grade, older than 10th grade, or not enrolled in the chosen Icelandic public schools were not eligible to participate in the focus groups.

Instruments and Measures

The researcher developed a detailed adolescent focus group guide based on a literature review as well as previously developed and validated guides, and Icelandic researchers' expert knowledge. The guide contained open-ended questions about students' awareness, opinions, and impressions of the YiI Model and programming elements. Questions contained in the guide also elicited information on students' opinions about the impact of the YiI Model domains on mental health and mental health resources available to Icelandic adolescents. See Appendix B for the focus group guide.

Study Procedures

Recruitment. Purposive sampling was used to recruit adolescents to participate in the focus groups in Iceland. The researcher randomly selected four public schools in the capital city of Reykjavik, two public schools located in the suburbs of Reykjavik, and two located outside the capital region in more rural areas. The researcher then emailed the principals of each school with an introductory letter and information about the study, and then followed up 1 week later via phone call to assess their interest. If they agreed to participate in the study, the researcher emailed them information sheets, consent forms,

and assent forms to give to recruited students. Each school then offered a day, time, classroom, and group of students to participate in the focus groups.

Focus groups. The researcher collected written informed consent from participants' guardians and also written informed assent from each adolescent participant prior to each focus group. A study staff member, who was a native Icelandic speaker and former Icelandic public school teacher, conducted the focus groups in Icelandic. Focus groups were audio-recorded and conducted in a closed, private classroom at each school from which the students were recruited. Two focus groups were conducted at each school, one with all-boy students and one with all-girl students. The school psychologist was on call nearby during each focus group in the event students wanted to discuss anything that arose during the discussion. The Icelandic Ethics Board and the Teachers College Institutional Review Board both granted approval for this study.

Data Analysis

All focus group recordings were transcribed verbatim, then translated into English and uploaded into NVivo, a qualitative data management and analysis software (QSR International Pty Ltd., Version 12, 2018). The researcher was primarily responsible for developing the codebook and coding the transcripts. The initial codebook was reviewed by other researchers on the team who reached consensus on a final code book. The researcher analyzed the transcribed data according to a standard comprehensive qualitative analysis method comprised of a two-stage coding process, including level 1 structural coding and level 2 thematic coding. Structural coding followed the structure of the focus group guide. Every question received a structural code that was applied to the appropriate text. Thematic coding was based on themes that arose from the structural

coding and applied in a second pass analysis. After the two-stage coding process was completed, the researcher wrote a comprehensive thematic analysis summary report. Any differences that arose during the second coding were presented to a panel of experts, and discussed until a consensus was reached.

Results

A total of 114 students from eight different public schools participated in the focus groups. Table 4 presents the participant and school demographic characteristics. Overall, 47.4% were boys, 25.4% were in 8th grade, 36.0% were in 9th grade, and 38.6% were in 10th grade. Key findings from this study included: (a) Icelandic adolescents were stressed and used a range of positive and negative coping mechanisms to deal with this stress; (b) there are several barriers to adolescent mental health care, such as cost and confidentiality issues; (c) while adolescents believe sports teams improve their mood, there is room for improvement (e.g., bullying, too competitive); and (d) adolescents confirmed that the YiI Model domains have a positive impact on their mental health. Focus group results did not differ by location, but boys and girls responded differently to the questions.

Stress and Coping Mechanisms

In every focus group, participants mentioned that they believed the biggest mental health issues facing Icelandic adolescents were stress and anxiety. When probed to find the cause of this stress, they mentioned their busy schedules, pressure to do well in school, and social media (see Table 5). Participants said their busy schedules led to stress and trouble sleeping. For example, one student mentioned:

Table 4

Focus Group Location Demographics of Participating Schools and Adolescents (N = 114)

School	Location	Boys n (%)	Girls n (%)	Grade	Total
Capital City					
Rimaskóli	Reykjavík	3 (37.5)	5 (62.5)	8th: 2 9th: 2 10th: 4	8
Réttarholtsskóli	Reykjavík	6 (40.0)	9 (60.0)	8th: 0 9th: 15 10th: 0	15
Hólabrekkuskóli	Reykjavík	11 (55.0)	9 (45.0)	8th: 0 9th: 0 10th: 20	20
Seljaskóli	Reykjavík	8 (50.0)	8 (50.0)	8th: 0 9th: 9 10th: 7	16
Suburbs of Capital					
Norðlingaskóli	Norðlingaholt	5 (50.0)	5 (50.0)	8th: 4 9th: 3 10th: 3	10
Klébergsskóli	Grundarhverfi	7 (50.0)	7 (50.0)	8th: 9 9th: 5 10th:0	14
Outside Capital Region					
Grunnskólans í Hveragerði	*Hveragerði*	5 (41.7)	7 (58.3)	8th: 3 9th: 3 10th: 6	12
Grunnskóli Húnaþings vestra	Hvammstangi	9 (47.4)	10 (52.6)	8th: 11 9th: 4 10th: 4	19
TOTAL	**16**	**54 (47.4)**	**60 (52.6)**	**8th: 29 9th: 41 10th: 44**	**114**

Table 5

Sources of Stress and Anxiety Among Icelandic Adolescents

Source of Stress and Anxiety	Example Quote
Busy Schedule	Student: I think [teenagers are so tired] because the energy is being sucked away from us because we need to be doing everything, we should have a job and we should have a life and also need to hand in like five assignments and do a lot of homework and also do projects in school and then we are supposed to be doing this and this and this. Student: You know, if I'm coming home at eleven from practice and have to do a whole math assignment that I have to hand in in two days or the next day or something, then you're not really getting any sleep.
Pressure to do well	Student 1: I also think that because this is the tenth grade at least for me, then it's so much more important to get good grades than in eighth and ninth grade so there is a lot of pressure in every single test and every single assignment Student 2: Yes, I get very stressed about not getting as good grades you know as last year and like here. Student 1: Yes, and my friend too just we want to get into the school that we want to go to. All Students: Yes! Student 1: Just a lot of pressure. Student 2: Yes, I mean schools accept rather students with straight As, then some student that is failing subjects and, you know. Student 1: Everyone gets so stressed for tests. All Students: Yes! Student 2: I get really bad test anxiety, for example, and I can practice for the test for eight hours straight and as soon as I sit down, I just forget everything. All Students: Yes! Student 2: And just get really bad like anxiety and just yeah. Student: When we are doing presentations, it is stressful. Yes, like often when I'm stressed, I can hardly talk a lot and don't sleep.

Table 5 (continued)

Source of Stress and Anxiety	Example Quote
Social Media	Coordinator: What effects do you think that the use of social media has on the well-being of teenagers? Student 1: Very bad. Student 2: Very. All Students: Yes! Student 4: Also social media has a tendency to ruin someone's self-image. So many…so you can maybe scroll through Instagram and see maybe just pictures of some fitness models that are maybe just super thin and you look at yourself and think "I can never be like that." And it ruins so much for you because it's what society tells you is right and tells you is beautiful which is just like not the right idea to it. Coordinator: What effects do you think that the use of social media on the internet has on the well-being of teenagers? Student 1: Makes everyone sad. Student 2: Then it can also be negative if you don't have a good self-image or something and are seeing pictures of someone that is much more good-looking than you. Student 1: It's also just much easier to be mean to someone on the internet than it is in real life, you know, so there's a certain risk. Coordinator: Yes, do you notice that much? Student 1: I have stress [because] there are people that have been really mean to me, for example, on twitter and then I met them in real life and then they are like pretty big cowards. Coordinator: What do you think adults need to know to help young people with their mental health? Student 1: Social media and just you know like much more just bullying very much now compared to when they were younger, then you were just made fun of because you came in some other style or you know or some like clothing style, but now everything you do is made fun of. Student 2: Yes, or you know, you don't get away from it, you know, you go home and the person is still on the internet. Student 3: When you're just at home and you look at someone [else's social media] and just like "wow I am so lame" and how I do nothing and just, you know.

> I think [teenagers are so tired] because the energy is being sucked away from us because we need to be doing everything, we should have a job and we should have a life and also need to hand in like five assignments and do a lot of homework and also do projects in school

Students also spoke about the pressure to perform well in school in order to gain admittance to their college of choice. Two students during a focus group talked about this pressure:

> Student 1: I also think that because this is the tenth grade at least for me, then it's so much more important to get good grades than in eighth and ninth grade so there is a lot of pressure in every single test and every single assignment.
>
> Student 2: Yes, I get very stressed about not getting as good grades, you know, as last year.
>
> Student 1: Yes, and my friends too, just we want to get into the school that we want to go to. Just a lot of pressure.
>
> Student 2: Yes, I mean schools accept students with straight As, [not] some student that is failing subjects.

Every focus group also mentioned social media as a contributor to stress. For example, one participant from one of the all-girl focus groups mentioned the stress she felt because of poor self-image after looking at photos on social media:

> Also social media has a tendency to ruin someone's self-image. So you can maybe scroll through Instagram and see maybe just pictures of some fitness models that are maybe just super thin and you look at yourself and think "I can never be like that." And it ruins so much for you because it's what society tells you is right and tells you is beautiful, which is just like not the right idea.

Other students discussed the issue of bullying on social media:

> Student 1: Social media…[there is] much more just bullying very much now compared to when they [adults] were younger then you were just made fun of because…some like clothing style but now everything you do is made fun of.
>
> Student 2: Yes [and] you know you don't get away from it you know you go home and the person is still on the internet.

However, all students also said that social media can be a positive tool as well. Social media allows them to stay connected to friends and talk when they need support. For example, students who lived in rural areas of Iceland mentioned social media as an important way to keep in touch with their friends who live far away.

> Student 1: If social media didn't exist, you would always be feeling lonely at home. You wouldn't have anyone to talk to.
>
> Student 2: Yes, you know you have a lot more friends with Snapchat.
>
> Student 1: Yes, and then you can make more friends everywhere.

After discussing sources of stress, participants were asked to talk about how they coped with their stress or noticed others acting when they felt stress. All students mentioned talking to their parents and friends if they did not feel well. But they also mentioned a range of positive and negative behaviors, from sports participation to self-harm. During one focus group with girls, students told us they knew when other girls at school stressed because they harmed themselves:

> Student 1: But no joke, I had not started to notice this until a few weeks ago, then there was some girl that walked up to me and said, "Have you noticed how many have cut themselves in my class?" and I said "No," but then I started looking at a lot of people, you know, like for example [some had cuts] on their ankles and there were some that I knew of that had seen like five people [with cuts].
>
> Coordinator: Why do you think they do this?
>
> Student 2: Maybe to feel something.
>
> Student 3: Well, some of course do it for attention and then they post it on their Instagram and things like that, but others might think that they don't deserve better, that they have to do it.
>
> Student 1: Also…I have been in this situation and what I wanted was to just feel something, because I didn't feel anything, you know, I didn't feel any feelings so I just wanted to feel something.

> Student 3: I feel like when people go through something terrible, they feel like they can't show people that they feel bad except by doing some damage so that people can see that they are suffering and that they need help.

Another focus group participant came to the researcher after the focus group had ended to confide that he and his friends were not on sports teams; after school if they felt overwhelmed, they went to a nearby construction site to smoke pot. Another participant mentioned students who did not feel well sometimes skipped school altogether:

> Coordinator: How can you tell if a student has poor mental health, you know, that he felt bad?
>
> Student: For example, not going to school. For example, my friend, she just doesn't go to school anymore.

Nearly all students in the focus groups mentioned sports teams as something that helped them when they were not feeling well. For example, one participant mentioned, "If I didn't do these sports, then I would just be a mess. [Without sports] I can't just be normal."

After discussing coping mechanisms, students were asked how they would handle a friend who was not feeling well emotionally. Interestingly, while students did not mention seeking out professional help for themselves if they were not feeling well, they said they would refer a friend. But each time students mentioned seeking professional mental health support, they also mentioned barriers to care (see Table 6). Many students mentioned it would be "insulting" and "embarrassing" to refer a friend to a mental health professional:

> Coordinator: Would you advise [a friend] to go to the health clinic and talk to a general practitioner or psychologist?
>
> Student 1: No!
>
> Student 2: No, I would not think of that.

Table 6

Perceived Barriers to Mental Healthcare Among Icelandic Adolescents

Barrier	Example Quotes
Stigma	Coordinator: Would you advise [a friend] to go to the health clinic and talk to a GP or psychologist? Student 1: No! Student 2: No, I would not think of that. Student 1: I would only if it were serious, if it was just the worst thing… Student 2: (Does finger-gun hand gesture as if shooting himself in head) Then maybe I might. I just think it's an insult or something. Student 1: Yes. Student 2: Talking to a psychologist, it sounds really like he is crazy or something. Student 1: It sounds offensive.
Confident-iality	Coordinator: I'm just wondering where you would think of going to your [school psychologist]? Student 1: No, since…no matter who you speak to, if you're talking to someone and you do not want it to be reported to your friends or your parents, then it's definitely going to happen. Student 2: Yes, because it's so small town that everyone talks to everyone. Student 1: Everyone knows everyone. Student 3: Yes, it will happen, they will tell your parents. Coordinator: But someone else? Is there anyone else in school that you could easily talk to [if you're not feeling well]? Student 1: School psychologist. Student 2: This is the school psychologist that is the stepmom of someone we know. Student 3: The psychologist sits beside me during marching band practices in the evening so that is maybe not really great idea. (laughs) Student 1: It's just a small community everyone knows everyone. Student 2: Yes, exactly. Student 1: You wouldn't dare say anything to anyone. (laughs) Student: [Guidance Counselor] wanted to talk to me once but I just like…you know talking to the guidance counselor in the school walking out crying, you know it's not fun… you know that people see you crying in school, it's just really embarrassing. Student: I went to a psychologist once and then I walked out and I saw a girl that was in my class and I just I just froze and was just terribly scared and I walked out and I was just sweating and just "Oh my god, she knows that I'm going to a psychologist and she knows and now the psychologist will tell her about all of this!" and I was just really stressed. I would never want to let my friend see me walk out after.
Cost	Coordinator: I'm just wondering where you would think of going to your [school psychologist]? All Students: No. Student 1: Wait isn't it also just really expensive? All Students: (laugh) Student 2: It costs a fortune to go to a psychologist, you see that's the problem.

Table 6 (continued)

Barrier	Example Quotes
Issue Not Perceived Severe Enough	Coordinator: Would go to a psychologist? You said that earlier? Student: If there were something seriously wrong. Coordinator: How do you feel about the thought of going to a psychologist? Student 1: I have never done that. Student 2: A bit of like an adult thing somehow I think. Coordinator: Really? Student 1: Could be probably…I don't know it would probably be weird to go to a psychologist. Student 2: It probably appears to be…it's a bit bad like there is something really wrong. Student 1: If you have to talk to someone and don't feel like you can talk to anyone that you know, if you can't talk to parents and don't feel like you can talk to your friends or siblings, then you go to a psychologist. Student 2: I think it's more like yes, I'm going to a psychologist, then shit man! It's something much more serious.
Attitude of Mental Health Professional	Student: I feel like psychologists are like talking to you and in reality, they don't care because they have very many patients going through similar things, you know, the same and just give you medication instead. Coordinator: Is that something you would do, would you go to a guidance counselor? Student 1: Nooo! Student 2: Doesn't a guidance counselor do something like, "I'm not doing well in math, could you help me?" Student 1: I do not know. Student 2 (mimics going to a guidance counselor): I'm not doing well mentally, could you help me guidance counselor? (now speaks in a low voice pretending to be guidance counselor) That has nothing to do with your education, get out! All Students: (laugh)
Access	Coordinator: But for example, would you advise her to go to a psychologist? Student 1: No. Student 2: Maybe. Student 1: No! (repeats previous answer for emphasis) Student 2: I don't even know what psychologists are at in X (town). Student 1: There is no psychologist at X (town). Student 3: The lady with the pink lipstick? Student 2: Oh yes! Coordinator: Would you tell her to look for the woman with the pink lipstick? Talk to her? Student 1: She quit. All Students: (laugh)

Student 1: I would only if it were serious, if it was just the worst thing….

Student 2: (Does finger-gun hand gesture as if shooting himself in head) Then maybe I might. I just think it's an insult or something.

Student 1: Yes!

Student 2: Talking to a psychologist, it sounds really like he is crazy or something.

Student 1: It sounds offensive.

Students in every focus group mentioned confidentiality as a concern that deterred them from seeking help. As one student said:

> I went to a psychologist once and when I walked out and I saw a girl that was in my class and I just, I just froze and was just terribly scared and I walked out and I was just sweating and just, "Oh my god, she knows that I'm going to a psychologist and she knows and now the psychologist will tell her about all of this!" and I was just really stressed.

Anonymity and confidentiality were especially an issue for students in small rural communities:

Coordinator: Is there anyone else in school that you could easily talk to [if you're not feeling well]?

Student 1: School psychologist.

Student 2: This is the school psychologist that is the stepmom of someone we know.

Student 3: The psychologist sits beside me during marching band practice in the evening so that is maybe not really great idea. (laughs)

Student 1: It's just a small community, everyone knows everyone.

Student 2: Yes, exactly.

Student 1: You wouldn't dare say anything to anyone. (laughs)

Interestingly, while students agreed psychologists offer important support to people struggling, they all expressed that seeing one was a last resort. Students said that

seeing a psychologist was only for people who did not have parents or friends to talk to, and only if the issue was very severe.

> Student 1: If you have to talk to someone and don't feel like you can talk to anyone that you know, if you can't talk to parents and don't feel like you can talk to your friends or siblings, then you go to a psychologist.
>
> Student 2: I think it's more like, yes, I'm going to a psychologist, then, shit man! It's something much more serious.

Students also complained about the attitude of mental health professionals. For example, they said they felt that psychologists did not really care about them, and instead of listening to their issues, psychologists just prescribed medication. Furthermore, if a student went to a guidance counselor at school, the counselor only would listen to the student if the problem was directly related to school. One student participant did an impression of going to a counselor at school, imitating both the counselor and the student. Pretending to be the student, he said, "I'm not doing well mentally. Could you help me, guidance counselor?" Then in low voice, mimicking the guidance counselor, he responded, "That has nothing to do with your education! Get out!"

Students in rural areas discussed the lack of mental health professionals available in their community:

> Student 1: I don't even know what psychologists are at [town name redacted].
>
> Student 2: There is no psychologist at [town name redacted].
>
> Student 3: The lady with the pink lipstick?
>
> Student 2: Oh yes!
>
> Coordinator: Would you tell [a friend struggling] to look for the woman with the pink lipstick? Talk to her?

Student 1: She quit.

All Students: (laugh)

Another barrier mentioned during every focus group was the high prices of seeing a mental health professional.

Requests to Improve Mental Health

During the focus groups, students discussed their ideas for improving adolescent mental health in Iceland (see Table 7). Students requested formal school courses on mental health (e.g., positive coping mechanisms). Students in a focus group explained:

Coordinator: Is there anything that you can think of that could make it easier for kids to get help if they feel bad?

Student 1: Have a class where we would just talk about this.

Student 2: How to deal with depression and things like that.

Student 1: Just like education [on depression] and things like that.

Student 2: More or you know, there is some discussion about it, maybe there just has to be more.

Students also discussed the need to identify at risk students:

Student 1: Monitor a bit the kids, like how they're feeling you know, the school or something.

Student 2: Yes, that's not being done.

Coordinator: Yes, who could do that? The teacher, or?

Student 2: Yes.

All focus groups reported the need for more mental health professionals to work at schools:

Student 1: Just put a psychologist into the school!

> Student 2: It's actually quite a brilliant idea since we only have a guidance counselor.

Last, students expressed a desire for a wider variety of afterschool activities outside competitive sports teams:

> Coordinator: [Do you] have too much to do or have a lot to do?
>
> Student 1: Too little to do, rather.
>
> Student 2: Yes, we are usually okay and we do not have much to do here at [name of town] because you know, we go to workouts and then, you know, I usually just go home on the computer.
>
> Student 1: Yes, if there were more sports that we could practice.
>
> Coordinator: Why are there so few choices here?
>
> Student 1: Small neighborhood.
>
> Student 2: Because we are so few.

Discussion

This study was the first to examine Icelandic youth's knowledge and attitudes about mental health and the YiI Model and programming through focus groups. The findings suggest that the YiI Model domains are associated with positive adolescent emotional health and align with the findings from previous studies using the YiI Survey data (Kim et al., 2012; Kristjansson, James, et al., 2010; Kristjansson et al., 2016; Sigfusdottir et al., 2011; Sigfusdottir, Kristjansson, Thorlindsson, & Allegrante, 2017; Sigfusdottir et al., 2009; Thorisdottir et al., 2017). For example, the focus group participants overwhelmingly referenced their parents and friends as important sources of emotional support. Students also said sports teams helped improve their mood and deal with stress. Parental support and sports team participation

Table 7

Requests to Improve Adolescent Mental Health

Request	Example Quote
School Courses on Mental Health	Coordinator: So do you just think that the society and adults are doing enough for the mental health of teenagers? Student 1: I think that there should be more in schools. Student 2: Just talk more about it. Student 3: Just what can be done about this if you have someone to talk to. Student 2: Just courses or something, I don't know. Student 3: We are always getting a bunch of lessons on drugs or alcohol or something like that a bunch of things like that but never mental health. Coordinator: Exactly, is there anything that you can think of that could make it easier for kids to get help if they feel bad? Student 1: Have a class where we would just talk about this. Student 2: How to deal with depression and things like that. Student 1: Just like education [on depression] and things like that. Student 2: More or you know there is some discussion about it, maybe there just has to be more.
Better Monitoring/ Surveillance in Schools of At-risk Kids	Student 1: Monitor a bit the kids like how they're feeling you know the school or something. Student 2: Yes, that's not being done. Student 3: Yes, or like see how they feel in the group that they're in, see how they feel with the company they have or… Coordinator: Yes, who could do that? The teacher or? Student 2: Yes. Student 3: Yes, maybe not really inspect exactly how they act around people maybe just try to notice if people are not in the right place.
More Mental Health Professionals in School	Student: I don't really know a lot of people there are just my parents and my friends and then the next step is just a psychologist or a doctor, there is somehow no in-between. Student 1: Just put a psychologist into the schools! Student 2: It's actually quite a brilliant idea since we only have guidance counselor. Student 1: The nurse is only [here at school] sometimes. Student 2: Very rarely. Student 1: Nobody is going to talk to him [the nurse]. Coordinator: But is this something you would do? If you know if you felt bad and [there was] a psychologist at school somewhere, would you go to talk to him? Student 1: Yes, I mean why not? It would be really easy to just go to him.

Table 7 (continued)

Request	Example Quote
	Student 1: You know, I have often had something really serious and many friends are just like "oh no," just "Ohhh I don't know what to say." Student 2: Then you get so disappointed. Student 1: And it's not their fault of course because there is of course, there is nobody in the tenth grade with, you know, like psychology something, you know, but it's just and also teachers don't really know what they're supposed to say, you know, even though they have been in the situation, but I mean… Student 2: But you know, what are you supposed to say to kids that say "I've stopped eating" or "I want to kill myself" or you know? Student 1: It's so annoying to always hear [from teachers and adults] "Oh just eat [more]" just, you know, or something like that. Student 2: Yes. Student 1: "Just watch some funny movie try to just not think about this" or you know, just something like that. Student 2: "Or listen to [music]." Student 1: If it's that kind of situation, then it's best to talk to a psychologist that knows the answer to everything. Coordinator: So because I asked like what could be done to make it easier do you have any…you know what could be done to make kids feel better? Is there anything you can think of? Student 1: Make it easier to talk so some psychologist or something similar the, you…maybe. Student 2: Have more accessibility to, you know, trained individuals.
More Activities (choices and outside capital)	Coordinator: [Do you] have too much to do or have a lot to do? Student 1: Too little to do, rather. Student 2: Yes, we are usually okay and we do not have much to do here at X [name of town] because you know, we go to workouts and then, you know, I usually just go home on the computer. Student 1: Yes, if there were more sports that we could practice. Coordinator: Why are there so few choices here? Student 1: Small neighborhood. Student 2: Because we are so few. Student 1: I think I remember that there was once like a robot Lego construction that you could go to that I once participated in.

are both integral components of the YiI programming (Eithsdottir et al., 2008; Kristjansson, James, et al., 2010; Kristjansson et al., 2016; Sigfusdottir et al., 2011).

These results align with previous studies in Iceland which also found parental involvement and sports to be important factors in adolescent emotional health (Asgeirsdottir, Sigfusdottir, Gudjonsson, & Sigurdsson, 2011; Eithsdottir et al., 2008; Gunnlaugsson et al., 2011; Kristjansson, James, et al., 2010; Kristjansson et al., 2016; Sigfusdottir et al., 2009; Sigfusdottir et al., 2011). Additionally, several other studies have explored the relationship between sports team participation and adolescent emotional health (Babiss & Gangwisch, 2009; Cheng et al., 2014; Dyer, Kristjansson, Mann, Smith, & Allegrante, 2017; Essex et al., 2006; Harding et al., 2015; Kim et al., 2012; McPherson et al., 2014; Wille, Bettge, Ravens-Sieberer, & BELLA Study, 2008).

All focus groups mentioned stress and anxiety as the most pressing mental health issue facing Icelandic adolescents, illustrating trends researchers have noted in the YiI Survey data over the past decade (Sigfusdottir, Asgeirsdottir, et al., 2008; Thorisdottir et al., 2017). By collecting youth viewpoints on the main sources of their stress and coping mechanisms, the results provide insight into this trend. All participants cited their busy schedules and pressure to do well in school as the main contributors to their stress. Between school, homework, sports practice, and working a job, they felt they had little time to socialize with friends or relax. Instead, they would stay up late on social media to catch up with friends and often not get enough sleep, which would have a negative impact on their performance at school the following day. Girls also cited social media as another stressful presence in their lives. While all students mentioned that social media helped them stay in touch with their friends, they said that social media fosters bullying

and poor self-image. This aligns with trends in the existing literature (Hoge, Bickham, & Cantor, 2017; Yang, Helgason, Sigfusdottir, & Kristjansson, 2013). These findings suggest certain types of social media usage can be harmful, while other types can help young people feel connected and social.

The findings that revealed barriers to seeking professional mental healthcare provide new context with which to understand adolescent healthcare-seeking behaviors. Cost and the stigma of seeing a mental health professional are issues known to the Icelandic community, and recent policies in health education are working to mitigate or eliminate these barriers (Gudmundsdottir & Vilhjalmsson, 2010; Sigfusdottir, Asgeirsdottir, et al., 2008; Wahlbeck, Westman, Nordentoft, Gissler, & Laursen, 2011). Students mentioned confidentiality was a big barrier to getting professional support because in a community as small as Iceland, the mental health professional often has a personal connection to the student. Students also mentioned they felt their issues were not severe enough to warrant speaking to a psychologist; moreover, the mental health professionals at school (e.g., guidance counselors) would not discuss non-school issues. Last, students living in rural areas outside the capital region mentioned access as a barrier to receiving mental health support. Often, participants reported that no mental health professionals worked at their school or in their community.

This study revealed a possible gap in the YiI Model. Coping skills and emotional self-regulation may be a fifth YiI Model domain. While the current YiI Model domains capture all exterior factors that can have impact on youth emotional well-being, the focus group results highlighted internal factors related to mental health. For example, students in the focus groups discussed navigating social situations such as bullying, tapping into

the students' ability to regulate their emotions and cope positively with a stressful situation. The four YiI domains do not include the concepts of coping skills and emotional self-regulation. Research has established that positive coping skills are associated with improved mental health and less risky behaviors among youth (Bovier et al., 2004; Fergus & Zimmerman, 2005; Masten, 2014). Perhaps coping skills and emotional self-regulation should be added as a fifth YiI domain and a new programming component to combat the growing issue of anxiety and depression among Icelandic youth.

This study has several limitations. The students included in the focus groups were limited to those in 8th, 9th, or 10th grade, which may have excluded important issues facing younger and older students. In addition, the researcher did not randomly select participants, but relied instead on the schools to recruit students who were appropriate for the study. This may mean that the results are not generalizable to the average Icelandic student. For instance, the schools may have only recruited students to participate who were doing well in school socially and academically. This means the findings may not reflect issues facing students who are struggling in school. Another factor possibly impacting the results was the choice to conduct focus groups, instead of one-on-one interviews or surveys, to collect data. During focus groups, shy students may not have felt comfortable sharing their views in front of others. Thus, valuable information may be missing from shy students or those who have less developed social skills. This choice may also have impacted the generalizability of the results. Furthermore, some students could have been uncomfortable discussing sensitive topics like mental illness in a group setting. Thus, students may have altered their answers because they were speaking in

front of their peers. Last, focus groups by nature are not standardized; that is, by design, they are conducted by a person and result in free and open discussion which will differ for each focus group. The differences in how each focus group was conducted could have affected the responses and skewed the results. The study methods deviated somewhat from qualitative study best practices (O'Brien, Harris, Beckman, Reed, & Cook, 2014; Tong, Sainsbury, & Craig, 2007) due to time and resource constraints. For example, the data analysis was primarily conducted by a single researcher, and inter-rater reliability was not reported. To address this limitation, the coding framework and results were discussed with a panel of experts to reach consensus, and therefore, the results are not likely to have been affected. Despite these limitations, the researcher felt focus groups were the most appropriate data collection method for this study mainly because students would likely be most comfortable discussing the sensitive topic of mental health with other students they know rather than in one-on-one interviews with an adult stranger.

While the researcher acknowledges these possible limitations, the study has notable strengths. The sample size was large and the focus groups were conducted in several different locations to capture opinions from different regions. The focus groups were also split by gender, to make sure students felt comfortable discussing issues that may be unique to them. The focus group study design allowed a collection of information that cannot be captured by surveys, and it addressed a gap in the existing literature on youth in Iceland. This is the first study to collect qualitative data from youth in Iceland regarding the YiI Model and mental health.

The findings suggest that coping mechanisms are an area which adolescents need help developing. While the youth mentioned several positive coping skills, such as

participating in sports and talking with friends and family, they also mentioned self-harm, drug use, and skipping school.

Students had many suggestions on how to improve mental health among youth in Iceland (see Table 7). They said more courses on mental health should be offered at school and noted that the curriculum should cover how to handle depression and anxiety, how to support a friend in need, and how to seek care. They also said changes should be made in school staffing to support adolescent emotional well-being. For example, they wanted teachers to monitor classes for students who are struggling and offer help sooner. They also requested more mental health professionals to work at schools to offer counseling on all issues, not just ones specific to school. Students also requested a wider variety of afterschool group activities. Although most students mentioned enjoying sports teams, they also said they wanted more non-competitive sports teams (e.g., intramural sports) and non-athletic activities (e.g., art, and technology). This was especially true for the students living outside the capital region, who felt they had no choices outside competitive sports teams.

This study brings much needed attention to adolescent mental health and raises awareness to barriers that should be eliminated and resources that should be developed for Icelandic youth. The results from this project can elucidate the active ingredients of Icelandic culture and the YiI Model and programming which may be beneficial to adolescent mental health—a dire global issue (Collishaw et al., 2004; Costello, Egger, & Angold, 2005; Giannakopoulos, 2015; Global Burden of Disease et al., 2017; Mokdad et al., 2016; Olfson, Druss, & Marcus, 2015). It also would help clarify the current mental health status and needs of Icelandic youth to better inform national and local policies,

Icelandic healthcare organizations, and public schools. The qualitative data give a narrative voice to youth regarding mental health and provide an important context to the YiI Model and programming.

Conclusion

This is the first qualitative study to be conducted with adolescents in order to explore mental health and the YiI Model in Iceland. More studies need to be conducted to collect qualitative data surrounding the YiI Model and mental health from other age groups and geographic areas. Qualitative data collection from key stakeholders who work with youth in Iceland may reveal the root causes of the barriers to care identified by the youth focus group participants. To improve the YiI Model, work must be done to explore adding coping skills, resilience, and emotional self-regulation together as a possible fifth domain.

Chapter IV

PAPER 3:

KEY STAKEHOLDER PERSPECTIVES ON THE YOUTH IN ICELAND MODEL AND ADOLESCENT MENTAL H EALTH

Abstract

Young people in Iceland are reporting increased mental illness symptoms and are seeking more mental health support than ever before. In an effort to better understand the adolescent environment and emotional well-being in Iceland from the perspective of adults who interact with young people, the researcher conducted interviews with key stakeholders in the Icelandic community from the government, education, and medical care sectors. Fifteen individuals, ranging from clinical psychologists to sports coaches, were interviewed. All interviews were audio-recorded, transcribed, and then analyzed. Participants agreed that adolescent mental health is declining in Iceland. They cited poor coping skills, busy schedules, and drug use as contributing factors. Key stakeholders discussed the positive impact of sports teams on young people's lives, but also expressed a need for more non-competitive, recreational teams as well as activities such as art and technology. Participants expressed concern over a number of issues in the education and healthcare system, such as long wait times and diagnosis-based mental health funding.

They outlined policy and system changes that would address these barriers to adolescent mental healthcare and foster more cross-sector collaboration. These findings illuminate issues facing adolescent mental health and suggest possible solutions for the healthcare and education systems. Recommendations included shifting funding from diagnosed-based to a needs-based system, expanding afterschool offerings, and reducing wait times for counseling.

Introduction

Iceland has emerged as a leader in youth development with the success of the Youth in Iceland (YiI) Model program. After study results reported high rates of substance use among their youth, Iceland came together as a community, and with the Icelandic Centre for Social Research and Analysis (ICSRA) launched the YiI Model program (Hibell & Bjarnason, 1997). This multilevel programming involved stakeholders at all community levels and aimed to reduce youth substance use via multiple channels (Kristjansson, James, et al., 2010; Kristjansson et al., 2016; Sigfusdottir et al., 2011; Sigfusdottir, Kristjansson, et al., 2008; Sigfusdottir et al., 2009). Since 1996, ICSRA has collected data about the model components, using a school-based survey called the YiI survey (Sigfusdottir, Kristjansson, et al., 2008). Recent studies have indicated that mental illness is a growing issue among youth in Iceland (Asgeirsdottir & Sigfusdottir, 2015; Sigfusdottir, Asgeirsdottir, et al., 2008; Thorisdottir et al., 2017). Other signs of this mental health crisis include 2-3 year-long waitlists for young people to see a mental health professional, and one of the highest prescription rates of psychotropic drugs for young people in the world (Directorate of Health, 2017; Fontaine, 2015; Nuse, 2016;

Þórsson, 2017; Ward, 2017; Zoëga et al., 2009). YiI survey results have been published exploring a range of topics such as familial conflict and emotional wellbeing, and sports participation and drug use (Eidsdottir, Kristjansson, Sigfusdottir, Garber, & Allegrante, 2013; Eithsdottir et al., 2008; Kristjansson, Allegrante, & Sigfusdottir, 2018; Kristjansson, Sigfusdottir, & Allegrante, 2010; Kristjansson et al., 2008; Kristjansson, Sigfusdottir, Allegrante, & Helgason, 2009; Kristjansson, Sigfusdottir, James, Allegrante, & Helgason, 2010; Thorisdottir, Kristjansson, Sigfusdottir, & Allegrante, 2012). While many studies have researched the impact of the YiI Model programming on substance use, none have explored its impact on a closely related issue—adolescent mental health.

To address this growing issue, it is imperative to learn more about the mental health of young people in Iceland, the systems that surround the problem, and existing programs that could offer solutions. For this study, the researcher conducted interviews with key stakeholders throughout the Icelandic community to collect information on their attitudes and opinions of the YiI Model, programming, and Icelandic adolescent mental health.

Methods

Settings and Participants

The key stakeholders who were interviewed came from a variety of sectors and all of them work with adolescents. Interviews were conducted in a closed room which was convenient for the participant (e.g., a private office). Individuals were eligible to participate if they were at least 18 years old, lived in Iceland, and interacted with youth through their work (e.g., a teacher, sports team coach). Individuals who were under 18

years old, did not reside in Iceland, did not work with adolescents, or were enrolled as a student in the Icelandic public school system were not eligible to participate in the interviews.

Instruments and Measures

The researcher developed a detailed key stakeholder interview guide, informed by a literature review, validated interview instruments, and the input of Icelandic experts in adolescent mental health. Open-ended questions developed for the guide aimed to collect information about participant awareness and opinions of the YiI Model domains and their impact on mental health. Also probed were perceived mental health issues facing Icelandic youth as well as resources and barriers to Icelandic adolescents seeking mental health support. See Appendix C for the complete guide.

Study Procedures

Recruitment. The researcher employed a combination of purposive and snowball sampling to recruit key stakeholders to interview. The ICSRA research team offered names of people in the community as initial contacts. The contacts were emailed an introductory letter and information about the study, and then were followed up 1 week later via phone call to assess their interest in participating. If they agreed, the researcher emailed them information sheets and scheduled times and locations for the interviews. The researcher also asked them for contacts to refer others who might be interested in being interviewed.

Key stakeholder interviews. Interviews were conducted in English and then transcribed by the same researcher. English is spoken by the majority of Icelandic people;

in fact, it is often described as the "second language" of Iceland. Research on English proficiency in Iceland found that more than 84% of Icelandic people surveyed reported their English listening, speaking, reading, and writing skills as "good" or "very good." Furthermore, close to 50% of study participants reported they spoke English daily (Arnbjörnsdóttir, 2018). The researcher collected a verbal informed consent before each interview and conducted all interviews in closed private rooms (e.g., the key stakeholder's work office). The Icelandic Ethics Board and the Teachers College Institutional Review Board both approved the study protocols.

Data Analysis

All key stakeholder interview recordings were transcribed verbatim, translated into English, and uploaded into NVivo, qualitative data management and analysis software (QSR International Pty Ltd., Version 12, 2018). The researcher was responsible for developing the codebook and coding the transcripts, although the initial codebook was reviewed by other researchers and discussed before agreement was reached on a final code book. All transcribed interviews were analyzed according to a standard comprehensive qualitative analysis method, comprised of a two-stage coding process: level 1 structural coding and level 2 thematic coding. Structural coding followed the structure of the guide. Every question received a structural code that was applied to the appropriate text. Thematic coding was based on the themes that arose from the structural coding and applied in a second pass analysis. After the two-stage coding process was completed, the researcher wrote a comprehensive thematic analysis summary report. Any differences that arose during the second coding were presented to a panel of experts, and discussed until a consensus was reached.

Results

Fifteen interviews were conducted with key stakeholders. Table 8 presents the work setting and job details of each participant, which ranged from roles in mental health care, hospitals, the department of education, schools, afterschool programming, and government offices. In addition, the researcher interviewed two psychologists working in a private practice specializing in adolescents; three mental health workers practicing in a clinical setting (i.e., hospital and medical office); two psychologists working at an educational services office; two individuals working in a school setting (i.e., one principal and one school guidance counselor); four participants working in afterschool programming (i.e., two youth center coordinators, a sports coach, and a psychologist who runs a special interest club); and finally two government employees (i.e., a psychologist working on school public health programming and a government official from the office of welfare). Key findings from this study were that key stakeholders reported that: (a) Icelandic youth are struggling emotionally but disagreed on the biggest driver of issue; (b) afterschool activities are important to youth's emotional well-being but need improvement; 3) many barriers exist within the educational and healthcare system preventing Icelandic youth from receiving adequate mental healthcare; and 4) a new and growing group of at-risk youth needs support.

Major Mental Health Issues Facing Icelandic Adolescents

While there was a consensus among participants that Icelandic adolescents are struggling emotionally (see Table 9), there were mixed opinions on the root cause. Some reported believing anxiety and depression were increasing, primarily due to busy schedules:

Table 8

Profiles of Key Stakeholder Interview Participants

Work Setting	Role
Mental Health/Private Practice	Psychologist working at a private practice, specializes in adolescents
Mental Health/Private Practice	Psychologist working at a private practice, specializes in adolescents
Medical Office	Psychiatric nurse, specializing in adolescent mental health, works in a clinical setting
Hospital	Psychologist specializing in adolescent mental health, works in at psychiatric ward specializing in child anxiety
Medical Office	Psychologist specializing in adolescent mental health, works at a medical clinic
Education Department	Psychologist who leads education services for school district
Education Department	School psychologist who works with education services office
School	Principal of a school
School	School guidance counselor
Sports Club	Sports coach
Youth Center	Youth center coordinator
Youth Center	Youth center coordinator
Afterschool club	Psychologist who runs a special interest afterschool youth activity
Government	Psychologist who spearheads creation and evaluation of school-based public health programming
Government	Government official who works in welfare office, focusing on adolescents

> I think some stress factors have increased, and if have anxiety increasing, then depression increasing. I think we have a large group of young people who are well functioning but over scheduled and may be developing anxiety. Some of them work a little too much with school. Most well adapted kids have job with school. It's pretty normal. I think that's not such a good thing that they do [all] that from 14, 15 years old. (Psychologist)

Others reported that poor resilience and lack of proper coping skills were driving the growing anxiety and depression among Icelandic youth. One participant stated that

Icelandic society "need[s] to work on teaching better coping skills. They [children] do not know what to do unless they go to a professional and that is our fault, nobody is teaching them." Another participant said they believed that "the problem is more lack of resilience and [not] teaching them [adolescents] what to do or telling them what to do." Participants who work directly with children at youth centers and at schools expressed a concern over increased hard drug use. Key stakeholders stated that while they were happy to report a noticeable drop in youth drinking, they were worried about the increase in accessibility and use of harder drugs:

> My worries…are about cannabis and easy access to drugs. Those good kids they have a shitty day and are inclined to do MDMA they say whatever, go to a college dance and do that there. That's what I think is the problem is. What I worry a lot is [youth] doing harder drugs, but drinking is going down. I worry a lot about that. And kids with bad coping skills do this [drugs]. (Principal)

Another participant discussed a recent meeting with a local police officer regarding the increase in adolescent overdoses on drugs and said, "We're also noticing the ones that are going off the track are just falling off, it's harder drugs, more trouble deeper, more extreme. We are learning that there are more overdoses because [youth are using] harder drugs."

Afterschool Activities

All participants agreed that supervised group activities are especially important for youth and Iceland does a wonderful job offering a variety of competitive sports teams. However, they cited issues with the programming they would like to see resolved. For example, there is a huge emphasis on competitive sports teams, which means kids who are not interested in competitive sports, or are more interested in other activities (e.g., art and music), are excluded:

Table 9

Biggest Mental Health Issues Facing Icelandic Youth According to Key Stakeholders

Issue	Supporting Quotes
Low Resilience, Poor Coping Skills	And kids with bad coping skills do this. They need to work on teaching better coping skills. They don't know what to do unless they go to a professional and that is our fault, nobody is teaching them. (Nurse) I'm not sure but I think the problem is more lack of resilience and teach them what to do or telling them what to do. (Psychologist) Biggest issue for young people is emotional control. My work is to help children control and regulate their emotions. Teaching them coping mechanisms. So I think that is my main aim, or should be. I think that is the main issue if you help children regulate their emotions then they're ready for what's ahead, for life in general. (Psychologist) I think the top three [issues facing youth] would be I think emotional regulation and social skills, are two but so intertwined, and if you're struggling in those two and both, so much more vulnerable to go into risky behaviors and substance use. (Psychologist/Government)
Anxiety and stress	I think some stress factors have increased, and if have anxiety increasing, then depression increasing. I think we have a large group of young people who are well functioning but over scheduled and maybe developing anxiety. Some of them work a little too much with school. Most well adapted kids have job with school. It's pretty normal. I think that's not such a good thing they do that from fourteen, fifteen years old. It's not a good thing to be overly busy, it's something people look at in a positive life in adult world. We admire people who are constantly working. (Psychologist) It's hard to deal with. We've been basically working on four kids who are skipping school due to anxiety, depression or mental issues. Anxiety is a big girl problem, have five to seven girls. Their career in school, A or B students, but [when they turn] thirteen, fourteen [when anxiety and depression] kick in but they will be closing doors at home and not going out. (Principal)

Table 9 (continued)

Issue	Supporting Quotes
Harder Drug Use	My worries there are about cannabis and easy access to drugs. Those good kids they have a shitty day and are inclined to do MDMA they say whatever go to a college dance and do that there. That's what I think is the problem is. What I worry a lot is doing harder drugs, but drinking is going down. I worry a lot about that [harder drug use]. And kids with bad coping skills do this. (School psychologist) The harder drugs. And access [is] an issue, it's harder to get alcohol and cigarettes now. And accessibility of weed and other drugs are easier to get. (Youth center coordinator) We're also noticing the ones that are going off the track are just falling off it's harder drugs um more trouble deeper, more extreme. We are learning that there are more overdoses because harder drugs. (Principal) When I was younger, we'd have dances and everyone would show up really drunk like falling down the stairs and there was even a drunk room for people. Now kids show up sober to the dances. But the thing is, I think the kids who are still really drinking and using drugs, just don't come to the dances and go somewhere else. It's a smaller group. It's smaller but getting worse. (Psychologist)

> I also think that sports clubs need to focus on noncompeting elements and teams so kids that are only interested in soccer or handball or something they can just practice but today the sports teams are focusing on to be the best and to compete. So that is what I've been hearing from kids. (Youth center coordinator)

Another participant talked about kids who want more creative activities instead of sports:

> Sports associations and recreational centers have a huge role to play in adolescents' well-being. We have been heavily focused on sports. I miss an emphasis on art and these types of different types of physical activity. Easy access to drawing and painting, dancing, to um you know because not everyone is interested in or good at playing football or handball. A little bit of a void for kids who are not who don't find themselves in the typical ball group sports. (Psychologist)

One key stakeholder noted many kids who tend to be less social and play games at home on their computer are very interested in group afterschool programs, but there are no supervised groups available for the types of activities that interest them (e.g., Cosplay and cards):

> I think there should be a wider variety especially for kids who I see a lot they have other interests. Not all kids have an interest in sports. Like music or all kinds of things, also Pokémon or chess club or these kind of things are sort of lacking. Don't get it at school so have to pay to go somewhere to seek this sort of entertainment. (Psychologist)

The key stakeholders also said that while the YiI Model programming stipend to help fund kids' afterschool activities is great, many clubs (especially music and art) have increased their fees, thus creating a barrier for kids who cannot afford paying out-of-pocket. A participant who runs a youth center explained the importance of funding more free activities:

> Our aim is to work with and embrace the kids that don't have anything else. Some of them are not participating in any sports or activities. Like playing instruments, because [it] costs a lot of money. Money isn't something we look at. Everything we do is free. (Youth center coordinator)

Another noted that non-sports activities tend to be more expensive;

> And especially those who don't have money, you can pay of course for music lessons and art lessons, but they're usually much more expensive than playing football. When the stipends got implemented automatically and immediately everyone raised their rates. So the idea was to get you involved in something all school year, but now usually only covers one semester of something. (Psychologist)

There is also the added complexity of the growing immigrant population in Iceland. This group faces many barriers to enrolling their children in afterschool activities (e.g. cost, transportation, language):

> For kids who are from families new to Iceland, data show they are less likely to participate in after school activities and are less likely to use the funding to

> enroll in clubs to do sports or whatever. I worry about the foreigners, the students here that don't have Icelandic as their first language because they're becoming more and more. We used to have only a few, but yeah, now we have more of them and with the language barrier they come here and are having problems but don't have the vocabulary to express exactly what is going on and different culture than their home. So that's something I worry about. I think sports are good but here these are the folks that are having social problems and they don't have the money to get their children to sports, so we have a little dilemma. (School psychologist)

Parental Involvement Is Key

All key stakeholders interviewed agreed that Icelandic parents are more involved in their children's lives than in decades past, and that parental involvement and support are key to helping struggling youth. But they did say the type of parental behavior and involvement required to improve adolescent mental health may be different than what was required to improve substance use 20 years ago;

> But we've seen increase in psychiatric medication, hospital admissions, communication with primary healthcare for mental health issues, so I think [it's] clear something negative [is] happening in young people's mental health. Protective and risk factors for substance use and mental health [are] not identical. Increased parental surveillance [is] hugely protective for alcohol and drug abuse, so if a child is home all the time and can see them all the time, [they] can be certain they are not drinking or doing drugs. But the same [is] not true of mental health. Being home with parents all the time [is] not great probably for your mental health. (Psychologist/Government)

For instance, one participant said that parents must be able to discuss mental health comfortably with their children:

> My sense is [children] are becoming more comfortable than my generation talking about how they feel and depression. And my general sense is we're not ready for it. We're trying to raise consciousness in talking about mental illness. Have advocates but we are not ready for it. I think it's important for us…. I think it's important for the older generation to be ready to discuss these things. There is a reason why we didn't share that with our parents. It's scary and weird. The kids are doing what we tell them, but we have no clue what to do with it. We don't talk about suicide and all those thoughts that much…different gender and sexuality,

> and identity issues which is all really tricky to handle and it's important we don't freak out, and we can carry and hold what they're bringing to us. (Nurse)

The key stakeholders also discussed the growing population of new Icelandic people, whose busier job schedules and language differences make it more difficult for parents to be as involved. This may put newer Icelandic youth at a higher risk for mental health issues:

> Most parents want to be involved, for the parents who are less involved it's because something is not the way it should be, socioeconomically, trauma history, parents dealing with mental or physical disability, or working busy jobs. We see that a lot with newer Icelandic families who don't have jobs with flexible schedules so cannot attend meetings and are living essentially in poverty and also likely struggling themselves with difficult social setting. (School psychologist)

Barriers to Adolescent Mental Healthcare

The key stakeholders all agreed that young people feel comfortable talking about their emotions and seeking help but are not receiving support largely due to issues within the Icelandic education and healthcare system (see Table 10). They cited long waitlists, lack of collaboration between the healthcare system and the education system, a low presence of mental health professionals at schools, and a diagnosis-based funding system as the biggest issues. One participant discussed the long waitlists for care;

> Depression and anxiety, we've had huge awakenings in this area. Huge public health campaigns specifically need to speak up and seek help and these types of things. But then there's the question, do they have access to help? This is something that has been criticized for decades. We have had very longstanding problems with this. We only have for the past year for psychologists as part of the staff in primary health care, very recent development. And only one percent and there are waitlists throughout the entire system and not uncommon for child to spend two to three years in the process of getting the final tertiary care that the need because there are so many stops and waiting lists along the way. This can almost easily take up the most important parts of the whole child's childhood. (Psychologist/Government)

Table 10

Biggest Barriers to Adolescent Mental Healthcare in Iceland According to Key Stakeholders

Issue	Supporting Quotes
Low Presence of Mental Health Professionals in Schools	The social worker and my school and I have been advocating for the past two years to spend more time at our school, so we're more visible, and accessible and it's more normalized that we are there for students, so it's not that there isn't a lack of interest on our part, but there are barriers and we have so many other obligations, meeting and teams that we sit on, that we can't organize our day differently. I think we need to do more when they are at school. Need more variety of people working at the schools and need to be able to implement more during school hours both with psychologists at schools not just diagnosing kids, but also treating kids at school. Whoever that is…social skills training, some kids need speech therapy, I think we should do more at school not just send them to other places because today parents need to go a lot of different places to get different help. Or different training for the kids, it's always taking place someplace else other than school. I think we need to support kids better by meeting them at their work environment which is the school.
Diagnosis-based Funding System	And many schools and educators put so much weight on the diagnostic piece, the reports and the evaluations, that in our district we're trying to emphasize that there is so much work that can be done without a report or label or diagnosis that that's all that matters. Typically schools only get funding for the neediest students with a diagnosis. (Psychologist/Government) The problem is the funding for special teaching depends on the big diagnosis. So we are having problems with that. I will tell parents I will pre-scan your child, after 3 months I can tell you your child likely has ADHD or autism, and needs special assistance and teaching, but until I have the full diagnosis nothing can be done. While the rest of the paperwork gets done, that takes two, well now three years in our district to get a diagnosis. But we are not funded enough to do things the way we'd like to be doing them. (Nurse) I think that is our problem today we're always looking at the diagnosis and not what the child needs. Like with ADHD for example, can have a good sweet child that just needs support at school you know then can have another child with ADHD who is really having a lot of behavioral problems so they need medication, better support, things after school to work on social and stuff like that, but same diagnosis but different needs so I think we need to look ore at what the child does need right now. (Psychologist)

Table 10 (continued)

Issue	Supporting Quotes
Waitlist for Care	The majority of my time is spent doing evaluations so I can refer them to another institution, to do another evaluation however many years later, feels redundant and a waste of time. (School psychologist) So you have a child and it's a Tuesday and the child gets diagnosed, and falls asleep and wakes up, the needs of this child has not changed over this 24 hours, but suddenly the school, the system can do something about those needs. But it took two years to determine that those needs were there. Everybody knew the needs were there, the teachers the parents. But the need wasn't real until someone with authority to say the need was real, said the need was there. And that's insane it's like we have a fire here and we can't start putting it out until the fire marshal comes and says that's a fire. Oh then we can proceed to put out the fire. But now the fire has engulfed the whole school because we were waiting for someone to tell us that it was a fire. This is a little bit what the system is like right now. (Nurse) Depression and anxiety, we've had huge awakenings in this area. Huge public health campaigns specifically need to speak up and seek help and these types of things. But then there's the question, do they have access to help? This is something that has been criticized for decades. We have had very longstanding problems with this. There are waitlists throughout the entire system and not uncommon for child to spend two to three years in the process of getting the final tertiary care that the need because there are so many stops and waiting lists along the way. This can almost easily take up the most important parts of the whole child's childhood. (Psychologist/Government) Nobody does anything because waiting for them [psychologist] to do something. Waiting for them to tell us there's a fire. And in the meantime we're waiting. And things that could be easily, easily handled by a school nurse even, nobody does anything because everyone is waiting. Even the social worker to do it. Things start to escalate if don't' start, and because no body officially tells us there's a problem. We have a waitlist culture here. The fire marshal is about to get here, so no one does anything. But the help isn't coming until after a couple years and the help is not magical. A learned, or forced helplessness on professionals. We have people that could o a lot but instead we wait because, oh wait he hasn't been diagnosed. (Nurse)

Table 10 (continued)

Issue	Supporting Quotes
	We are so diagnosis-focused in here in the school system. So because have a diagnosis-based service model not a need-based model. And a diagnosis does not necessarily correlate to a need. So in my opinion we should focus on a needs-based model. It's lawed to the extent we have a strong movement and strong stakeholder bias in getting that diagnosis because the funding and extra funding and all those things come with the diagnosis. (Psychologist/Government)
Separation Between Health and Medical Departments	[We] cannot do the screening [we] want because[we] are in the education department and want to ask for information that they believe is technically health/medical information, so inappropriate to do at school [should be the community healthcare clinic]. (School psychologist) Now we have two departments the school department and the health department. We need to come together and coordinate a lot of things. We don't need to use the police as much, they're not shoplifting or doing drugs, we don't have violence problems. But the problem now what needs to be addressed the discussion what is health and what is schooling, and education and they need to come together and when I have to speak to child welfare, well, this is an education problem and when I go to my boss, he says no this is a welfare problem and that is leading to so many problems not being solved. (Principal)

Another key stakeholder discussed frustration surrounding mental health support funding at schools and mental health counseling hinging on a diagnosis:

> So you have a child and it's a Tuesday and the child gets diagnosed, and falls asleep and wakes up, the needs of this child has not changed over this twenty-four hours, but suddenly the school, the system can do something about those needs. But it took two years to determine that those needs were there. Everybody knew the needs were there, the teachers the parents. But the need wasn't real until someone with authority to say the need was real, said the need was there. And that's insane, it's like we have a fire here and we can't start putting it out until the fire marshal comes and says that's a fire. Oh, then we can proceed to put out the fire. But now the fire has engulfed the whole school because we were waiting for someone to tell us that it was a fire. This is a little bit what the system is like right now. (Nurse)

Another participant talked about the problem with the Icelandic diagnosis-based system:

> I think that is our problem today we're always looking at the diagnosis and not what the child needs. Like with ADHD for example, can have a good sweet child that just needs support at school you know then can have another child with ADHD who is really having a lot of behavioral problems so they need medication, better support, things after school to work on social and stuff like that, but same diagnosis but different needs so I think we need to look ore at what the child does need right now. (Psychologist)

The Silent Epidemic

A school principal recalled working in Icelandic schools 20 years ago, during the height of the community's battle with adolescent substance use. The participant reflected that in many ways it was easier to get support to address drug use:

> We had big drug issues and violence and truancy issues. In some ways, this [mental illness problem] is more difficult to deal with. When we were fighting drugs and alcohol use the focus was all around, it was in the papers because they were vandalizing cars, or selling pot in school yard, you would get the ambulances and the fire department. But now, basically kids are staying at home, or if they do come to school they sit and don't learn, sit with their hoodies on. The boys that go into the computer, their addiction is computer games and we can't get them into school, in the end they will just be as unwell as a child with addiction. It's easier to monitor kids selling drugs but no one knows about this sixteen-year-old boy that never leaves his house for a whole month. Then the system doesn't have any way to deal. It's hard to deal with. But because he's not on drugs, or violent and you're not a big problem to society you somehow get lost in the system. There were quite a lot of young boys taking their lives last year. Discussion [in the community lasted] a month, then dies down. Then we have these boys we can't drag out to get to school, when he has lost all connections with outside world, he will be the boy in the news. (Principal)

Discussion

This study is the first to collect key stakeholders' opinions about adolescent mental health and the YiI Model and programming. The findings indicated that individuals working with adolescents believe in the validity of the YiI Model domains, and especially in the importance of parental involvement and afterschool activities. They

expressed a need for parents to work on being more comfortable talking about sensitive mental health issues with their children in order to be a supportive presence in their lives.

The key stakeholders also discussed the positive impact of sports teams on adolescent emotional well-being. However, they noted that there needs to be more variety in afterschool activities for kids. For example, they discussed the need for more non-competitive sports for young people who are not interested in competing, and more arts programs and special interest groups so children not interested (or skilled) in sports still derive the benefits of adult-supervised group activities with their peers. They noted that the government stipends no longer cover afterschool activities for kids, which mean arts programs are out of reach for some youth. Participants held the opinion that young people are struggling with mental health issues stemming from low resilience and poor coping skills.

Participants reported that schools and parents are not teaching adolescents how to regulate their emotions. According to the interviews, young people feel anxious and depressed over busy schedules and stressed youth turn to drugs and other unhealthy behaviors to cope. Interview participants listed many ways to improve the educational system and healthcare system in order to better support adolescent mental health in Iceland. They spoke about long waitlists to see mental health professionals and up to 3-year-long waiting lists for young people to get screened and allocated educational assistance. All participants discussed their frustration with the diagnosis-based system in Iceland; children do not receive mental healthcare (e.g., coverage to see a mental health professional, funding to attend group therapy, assistance in school) until they have an official medical diagnosis. This is a grave issue for several reasons: it can take up to

3 years for a child to receive the official diagnosis and, meanwhile, the child receives no mental health support or care unless the family pays out of pocket. Furthermore, once a child receives a diagnosis, it entitles the child to a prescribed amount and type of care that may not address his or her particular needs. One participant compared the situation to watching a fire burn and not doing anything about it until the fire marshal arrives and officially announces there is a fire.

The key stakeholders also noted that mental health professionals are not visible or accessible in school settings; their schedules limit them to going to the school only a few hours a week, thus making it difficult for them to build rapport with students and be accessible to those who need to speak to a professional. Key stakeholders across all the different sectors talked about their desire for more collaboration, especially between the educational sector and medical sector. Participants reported difficulties helping young people struggling with mental health issues due to organizational issues between the education and health departments. For example, a participant met with the welfare department about a student who had not attended school for over 4 months due to anxiety. The participant was told this type of case was not the responsibility of the welfare department and should be addressed by the department of education. He was referred back and forth between offices before giving up. A school psychologist working in education mentioned all the data she has collected to identify students at risk for anxiety, depression, and other emotional and behavioral issues but cannot use. The Icelandic ethics board told her the data were technically medical data, not educational data, and therefore she could not work with the data unless she formally collaborated with the health department or local health clinic. While she said she would love to

collaborate with the health department or local community clinic, they lack the human resources to carry out this work.

Several limitations should be noted. First, the researcher did not focus on one sector and instead aimed to include a variety of participants in the interviews. This may have impacted the results so that they are not generalizable to any one sector or occupation working with youth in Iceland. It was important to include participants from different sectors because this is the first study of its kind in Iceland and capturing as much information as possible was valuable. Second, the researcher employed a combination of snowball sampling and referral to recruit participants. This also means that the results are not generalizable to the general population of Icelandic people working with youth. However, for the purposes of this study, it was critical to obtain expert opinions from a specific group of people, so this sampling and recruiting technique was most appropriate. Furthermore, the interviews were conducted in English instead of Icelandic, which might mean some participants did not share information they could not articulate in English, thereby altering the final results. However, this was not deemed a serious limitation because English is widely spoken in Iceland and participants were encouraged to speak Icelandic if needed. Any Icelandic spoken during the interviews was translated afterwards via the audio recording. Last, the interviews were conducted by a non-Icelandic researcher. Initially, this was a concern as it might have altered the results if the participants felt apprehensive in speaking with a person from outside their community. Unexpectedly, during several of the interviews, participants expressed feeling more comfortable in stating their true opinions to someone from the outside as it ensured confidentiality and anonymity because the interviewer did not know their work

colleagues. Study methods deviated somewhat from qualitative study best practices (O'Brien, Harris, Beckman, Reed, & Cook, 2014; Tong, Sainsbury, & Craig, 2007) due to time and resource constraints. For example, the data analysis was primarily conducted by a single researcher, and inter-rater reliability was not reported. To address this limitation, the coding framework and results were discussed with a panel of experts to reach consensus, and therefore, the results are not likely to have been affected. Despite these limitations, the study has important strengths. First, it was a large study group and the same researcher conducted all the interviews and transcribed and coded all the data, thus improving the reliability of the results. Second, this was the first study to explore this topic and collect observations about the YiI Model from the perspective of key adult stakeholders in the community.

Conclusion

The findings from this study indicated that more research needs to be done, especially on resilience and coping skills among young people in Iceland. Coping skills and emotional self-regulation may be important concepts missing from the YiI Model. Also, while the YiI Model programming focuses primarily on competitive sports teams, the ICSRA should consider broadening activities to include more adult-supervised group activities outside competitive sports in order to include more at-risk youth who are often left out of current programming and have interests outside the mainstream. More research should be done on the system issues mentioned by the participants and especially on policy work to develop solutions for the current waitlist and diagnosis-based funding issues. There is also very little research and data on the growing immigrant population in

Iceland and the increasing worry over new Icelandic youth's mental health. Last, more work should be done to raise awareness of this growing epidemic and how to help. As one participant mentioned, mental health is a silent epidemic and does not make the news as did the substance use and violence issues Icelandic adolescents faced in the past.

Chapter V

SYNTHESIS

Mental health is a growing public health issue, especially among adolescents (Costello et al., 2005; Giannakopoulos, 2015; Global Burden of Disease et al., 2017; Kyu et al., 2018; Mokdad et al., 2016; Patel, 2014; Patel, Flisher, Hetrick, & McGorry, 2007). Describing and evaluating existing large-scale programs is key to designing effective public health interventions for improving mental health. Through mixed methods, this trio of studies evaluated the relationship between the YiI Model self-reported symptoms of mental health. Overall, the noteworthy results are as follows.

All three studies suggested that all the YiI Model domains had a positive association with adolescent mental health and emotional well-being. Results from the YiI Survey indicated these domains had an inverse relationship with self-reported symptoms of anxiety and depression. Focus group participants (youth) mentioned the domains (such as talking to their parents and participating in sports) as ways to feel better when emotionally upset. Key informants (professionals) also confirmed that they believed and saw in practice that these domains have a positive impact on adolescent moods. This is a promising finding which indicated that the YiI programming can possibly address the growing issue of adolescent mental illness in the Icelandic community. Moreover, the results showed that being exposed to and engaging in the programming are indeed

associated with a reduction in self-reported symptoms of anxiety and depression. Thus, there is promise for harnessing the YiI programming to address the growing issue of adolescent mental health.

Implications for Policy and Practice

The findings from this study can be used to reveal possible policy and practice change solutions to address adolescent mental health. Nearly all key informants interviewed mentioned the dire need to shift from a diagnosis-based system to a needs-based system; that is, mental health support for youth, such as insurance coverage for counseling and extra support at school, should not be contingent or prescriptive based on a diagnosis. Instead, evaluations should be done to determine the unique needs of each student. For instance, it is well known that behavioral and cognitive symptoms of autism vary greatly (National Institute of Mental Health [NIMH], 2018). Dyck, Piek, Hay, and Hallmayer (2007) assessed the ability deficits and achievement discrepancies in children aged 4 to 13 years old with a diagnosis of Autistic Disorder. They found that there was a wide range of intelligence, language, motor coordination, and social cognition symptoms among the study sample. Each of these children would need different kinds and levels of support to succeed, which is why it is so important for Iceland to shift to a needs-based system to address each child's needs properly, independent of diagnosis.

Expanding the Icelandic national insurance to cover mental health counseling and group therapy could also help solve the funding issues caused by the diagnosis-based system and address high-cost barriers to care, as mentioned by both the key stakeholders and the adolescent study participants. Currently, the Icelandic national healthcare

insurance system does not cover mental health counseling, group therapy, or any psychological issues of any kind, unless a child is diagnosed with a mental health illness that, according to guidelines, warrants care. However, the care they receive is based on their particular diagnosis. Numerous studies of other countries have established that insurance coverage of mental health services is associated with better mental health and with better overall health (Kohn, Saxena, Levav, & Saraceno, 2004; Rhodes, 2018). Filling this gap in coverage could also help lower the exceptionally high rates of psychotropic drug prescriptions to young people in Iceland. Several recent government reports and studies have indicated that Icelandic people and children are using many more psychotropic drugs than other Nordic countries, which are covered by the national healthcare system (Directorate of Health, 2017; Fontaine, 2015; Nuse, 2016; Þórsson, 2017; Ward, 2017; Zoëga et al., 2009). Perhaps offering coverage for counseling would reduce the high rate of prescriptions to young people since cost was mentioned as a barrier by both focus group and interview participants.

Policies should be implemented to help reduce the long wait times for young people to see a mental health professional and receive school support. There are several ways to address this, such as granting diagnosis and counseling authority to non-psychologists to increase available counselors. Training non-mental health professionals (e.g., nurses, teachers, and community members) in counseling and therapy techniques has been shown to be effective and successful. Studies have validated the effectiveness of training non-mental professionals to deliver counseling in countries with low numbers of trained mental health professionals. For example, a cluster randomized-controlled trial in India showed the short- and long-term effectiveness of an intervention led by lay health

counselors for mental disorders (Patel et al., 2010; Patel et al., 2011). Other research has discusses the possibility of using school nurses to address the mental health needs of students (Stevenson, 2010). Another possible strategy involves offering more group therapy in Iceland. Many studies have demonstrated the effectiveness of group interpersonal psychotherapy approaches for adolescents (O'Shea, Spence, & Donovan, 2015; Rosselló, Bernal, & Rivera-Medina, 2012; Verdeli et al, 2008; Wergeland et al, 2014). Rosselló et al. (2012) found that group interpersonal psychotherapy and group cognitive behavioral therapy had positive impacts on adolescent depressive symptoms. Verdeli et al. (2008) also successfully adapted group interpersonal therapy for adolescents in Uganda.

As a small country, Iceland will always face human capital issues, so it may be prudent to consider creative ways to offer care. For instance, using Smart Phones and the internet to counsel via voice phone calls or texting is a growing method to delivering mental health support to adolescents. Reviews of the literature have found mixed results on the impact of various computer, texting, and chat interventions on adolescent mental health, but indicated overall potential (Abuwalla et al., 2018; Boydell et al., 2014; Grist, Porter, & Stallard, 2017; Stasiak et al., 2016; Ye et al., 2014). Not only would this address the long waitlist issues, but it could also address some of the barriers to care for adolescents in rural areas of Iceland. Study participants mentioned there were few or no mental health professionals practicing in their community. Phone or internet-based counseling could bring support to these rural areas. Furthermore, many students mentioned their worry over anonymity and confidentiality that arise in such a small community. When a mental health professional was available in their community, often it

was the relative of a classmate or someone else they knew, and so this relationship was cited as a deterrent to seeking care. Counseling over phone or text could solve that issue by allowing young people to receive care inconspicuously and from someone outside their tightknit community. Two meta-analyses of internet and mobile-based interventions for mental disorders in children and adolescents have suggested that they are efficacious and show potentials for delivering mental health support to young people, especially in areas of low access (Grist, Porter, & Stallard, 2017; Stallard, Croker, & Denne, 2018).

Implications for Programming and Practice

Results from the study provided insight into ways to adjust the YiI Model and programming to better address adolescent mental health in Iceland. Key stakeholders and adolescents both requested more mental health-related programming in schools. YiI programming already employs a multilevel approach to youth development, but it is recommended that YiI should also apply this multilevel approach to the school programming as well. School-based programming should shift towards prevention and a stepwise approach to addressing the mental health and emotional well-being of young people. New programming should incorporate social skills, coping skills, emotional regulation, and mindfulness into the curricula of schools and activities. Teachers should be trained in risk surveillance in order to identify students in need. More group therapy should be provided at school for students who need more extensive support. Some school districts are already employing this type of tiered model, with great success. A district of Reykjavik has created a multitiered service model, the Breiðholtsmódel, to attempt to handle their students' emotional, social, behavioral, and learning difficulties internally at

their school service center rather than referring them to outside offices (Arnardottir, 2016; Þorkelsdóttir, 2016). Their programming involves rapid screening, parent and teacher training, and family courses at the Breiðholt Solution Service Center. It has been a huge success and is serving as a model for other school districts (Benediksdottir, 2015; Þorkelsdóttir, 2016).

Revamping the YiI programming courses also could influence the family domain. Results from the focus groups showed that young people talk to their parents when they need support, and key stakeholders spoke about the importance of teaching parents how to raise emotionally healthy young people. It is well established in the literature that parents have a large influence on adolescents' emotional well-being (Essex et al., 2006; Harding et al., 2015). Parenting courses could teach parents the warning signs of youth in crisis, how to speak to their children about sensitive topics in mental health, and how to model and teach healthy coping skills and emotional regulation. This would empower parents to handle the emotional roller coaster of adolescence, without having to always consult professionals. Parenting classes have already successfully been implemented in Iceland as part of the successful comprehensive school-based mental health support model offered in Breiðholt, described above (Þorkelsdóttir, 2016).

All study participants, both adults and adolescents, requested a wider variety of afterschool programming. Currently, YiI programming encourages youth participation in adult-supervised group activities and focuses on competitive sports teams. But as participants expressed, this is not enough. Students and key stakeholders requested more recreational sports and physical activity options. While participation in competitive sports has an established association in the literature with positive adolescent mental health

(Babiss & Gangwisch, 2009; Cheng et al., 2014; Dyer, Kristjansson, Mann, Smith, & Allegrante, 2017; Essex et al., 2006; Harding et al., 2015; Kim et al., 2012; McPherson et al., 2014), results from this study highlighted some downsides of sports teams (i.e., bullying and competition). Previous studies also indicated that there are negative impacts of competitive sports, such as burnout, bullying, anxiety, and stress (Merkel, 2013; Norton, Burns, Hope, & Bauer, 2000; Patel, Omar, & Terry, 2010; Volk & Lagzdins, 2009). Furthermore, study participants also requested non-sports (e.g., art, card games, and technology). Previous research has indicated that art activities may positively impact adolescent emotional well-being and may be worthwhile additions to the YiI programming (Bungay, Clift, & Valla-Burrows, 2012; Bungay & Vella-Burrows, 2013; Burkhardt & Brennan, 2012; Daykin et al., 2008). Offering a wider variety of activities would especially benefit at-risk young people who, according to the key stakeholders, are more socially isolated and not interested in mainstream activities.

Another important next step is to raise awareness in the community of the Icelandic adolescent mental health crisis. In the recent past, Iceland has launched public awareness campaigns for mental health and related issues. For example, on October 10th, 2000, Iceland added a new word to the Icelandic language—"Geðrækt," which means "mental health promotion"—to commemorate the launch of the public mental health awareness campaign by the Icelandic Mental Health Alliance. Programming included mental health days at local universities to help reduce stigma around mental illness, courses offered at local youth centers, and public demonstrations to raise awareness of mental health issues (Geðhjálp, 2016). More recently, the social media hashtag #karlmennskan allows Icelandic men to share stories of toxic masculinity (Fontaine,

2018; *Iceland Review,* 2018). But more needs to be done to gain the attention of the Icelandic community and motivate them to come together, just as the ESPAD results did for youth substance use in 1996. The community outcry 20 years ago helped motivate action by leaders in government, education, and medicine, but lack of awareness and stigma can impede efforts. The whole community needs to be supportive if Iceland is going to combat the adolescent mental health crisis successfully.

Recommendations for Future Research

This study helped describe the relationship between the YiI Model and Icelandic adolescent mental health, but also raised further questions. Results from this study not only highlight further areas for research regarding the YiI Model, but also the role of the healthcare system, schools, parents, and afterschool activities on adolescent mental health in Iceland. In order to improve Icelandic adolescent emotional well-being, it is imperative to continue the work started by this study. Thus, the following recommendations for future are made.

1. A first step would include conducting further exploratory research to fill the gaps of this study. As shown by the focus group and interview results, there is possibly a fifth YiI Model domain. The addition could make the model more comprehensive and appropriate to address the youth mental health crisis. The internal ability to withstand outside stressors and manage emotions was mentioned by nearly all key stakeholders and during every focus group. Coping skills, emotional regulation, and resiliance are shown to impact adolescent mental health and emotional well-being positively (Davydov,

Stewart, Ritchie, & Chaudieu, 2010; Zolkoski, & Bullock, 2012). A statistical analysis could explore adding this fifth domain using a similar analysis as done in Paper 1 by adding variables that tap into coping and emotional regulation to the YiI Model score and observing how the numbers change. Furthermore, more qualitative research could be conducted to collect more information specifically on these concepts from key stakeholders and youth.

2. Research should also explore the relationship between social media use and youth mental health. Social media usage can have good and bad effects on adolescents' emotional well-being (Barker, 2009; Best, Manktelow, & Taylor, 2014; O'Keefe & Clarke-Pearson, 2011). As the youth reported during the focus groups, social media can both be positive (e.g., a way to socialize) and negative (e.g., an environment for bullying). This finding is aligned with the literature. For example, a study exploring social media, sleep quality, and well-being among 467 Scottish adolescents found evening social media use to be associated with poor sleep, low self-esteem, and symptoms of anxiety and depression (Woods & Scott, 2016). Other studies found positive and negative consequences of young people using Facebook. Tiggemann and Slater (2016) found that increased Facebook use was associated with more body concerns and poor body image among adolescent girls. Another study conducted by Nabi, Prestin, and So (2013) determined that interaction with Facebook friends was associated with perceived social support. Results from research on social media usage in Iceland could inform school policies and rules on

student social media use at school and curriculum for parenting classes on how to parent around social media.

3. More qualitative research should be done to build upon this study's results and answer some important outstanding questions. Questions to ask key stakeholders include: How can the system change to foster more cross-sector collaboration? Who are the youth at most risk for mental illness? More focus groups should also be conducted to explore needs of particular subgroups and identify at-risk youth. For instance, perhaps more focus groups should be done with youth outside the Reykjavik region to explore their particular needs. Focus groups should also specially recruit new Icelandic youth to identify risk factors to mental health issues for this particular at-risk group (Fazel, Reed, Panter-Brick, & Stein, 2012). Studies have also indicated that adolescent refugees suffer from psychological distress and trauma (Bronstein & Montgomery, 2011; Guruge & Butt, 2015). They are particularly at risk because of barriers to seeking support, such as language differences, stigma towards mental health care, and poor finances (Ellis, Miller, Baldwin, & Abdi, 2011; Hicks, Lalonde, & Pepler, 2009).
4. Other study designs should be explored in order to more accurately quantify the impact and the specific effects of the YiI model programming on adolescent mental health and emotional well-being. For example, a quasi-experimental, randomized controlled trial (RCT) of communities where Youth in Iceland programming and its impact are studied prospectively and compared to a control community could clarify whether a causal relationship

exists, the direction, and impact on adolescent emotional health. While RCTs are considered the "gold standard" of study design, carrying out this study would be challenging. RCTs are expensive in time and money, and should compare simple differences in treatments (Wolf, 2000). Furthermore, while RCTs have strong internal validity, they have weak external validity. Real-life communities are complex environments, and would be difficult to regulate for an RCT, and results would be difficult to generalize to the real world (Shelton, 2014). There may be potential opportunity for this type of study as the YiI model is expanded to communities throughout the world; similar communities could be compared as programming is introduced over time. This research possibility should be explored further.

Conclusion

This study is a call to action to the Icelandic community to come together and address the rising mental health issues of their youth. The main aim of this study was to address the lack of qualitative research on the YiI Model and programming, and explore the relationship between the YiI Model and adolescent mental health in Iceland. This document described a variety of opportunities to address identified barriers and issues as well as presented areas for further research.

Iceland has done what we believe is, in practice, essentially impossible. In less than 20 years, Iceland has catalyzed a nationwide cultural shift around youth and substance use. The YiI Model and programming has driven change not only around how young people use alcohol and drugs, but also around how youth socialize, how family

systems raise children, and how the community views adolescence. The YiI Model programming and policies have altered the environments where young people spend time (e.g., schools and youth centers) and how young people think, react, and act around drugs and alcohol. This cultural shift has been driven, in large part, by multilevel programming and policies, coupled with a nationwide effort to alleviate the problem. This needs to happen again if Iceland is to improve adolescent mental health. The YiI Model is not an all-encompassing solution. Rather, it is an approach that will need updating as time passes. This study has taken the first step to explore the issue and propose possible next steps. Icelandic youth will continue to face challenges, and the Icelandic community will need to adapt to address them. Equipped with multilevel, collaborative frameworks like the YiI Model, the future of Icelandic youth looks promising.

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Appendix A

Calculating the Youth in Iceland Score

The Youth in Iceland (YiI) score was calculated as follows:

$$\text{Youth in Iceland Score} = 4\left[\begin{array}{c}\text{Family Relationship}\\ \text{Domain Score}\end{array}\right] + 3\left[\begin{array}{c}\text{Friend Relationship}\\ \text{Domain Score}\end{array}\right] + 3\left[\begin{array}{c}\text{Organized Activities}\\ \text{Domain Score}\end{array}\right] + \left[\begin{array}{c}\text{Neighbor Relationship}\\ \text{Domain Score}\end{array}\right]$$

Weights for each domain were determined by the results of a modified Delphi consensus survey; the first round consisted of a literature review, followed by two rounds of surveys sent to Icelandic experts in mental health and youth development to reach consensus on the weights for the four YiI model domains in the score.

Below are presented the variables from the 2016 YiI survey which contributed to each of the four domains in the YiI score.

YiI Domain	Question Stem	Answer Choices
Family Relationship Domain Score		
	How easy or hard would it be for you to receive the following from your parents?	Earn 1 point if answered "Rather Easy" or "Easy"
	Caring and warmth	
	Discussions about personal affairs	
	Advice about studies	
	Advice about other issues	
	Assistance with things	
	How does the following apply to you?	
	Almost never/seldom/sometimes/often/almost always	
	I spend time with my parents outside school hours on working days	
	I spend time with my parents during the weekends	
	How do the following statements apply to you?	Earn one point if answered "Applies Rather Well" or "Applies Very Well"
	My parents set definite rules about what I can do at home	
	My parents set definite rules about what I can do outside the home	
	My parents set definite rules about when I should be home in the evening	

	My parents know whom I am with in the evenings	
	My parents know where I am in the evenings	
	My parents know my friends	
	My parents know the parents of my friends	
	My parents often talk to the parents of my friends	
	My parents and the parents of my friends sometimes meet to talk to one another	
	My parents follow what I do in my recreational time	
Friend Relationship Domain Score		
	How easy would it be for you to receive the following from your friends?	Earn 1 point if answered "Rather Easy" or "Easy"
	Caring and warmth?	
	Discussions about personal affairs?	
	Advice about studies?	
	Advice about other issues?	
	Assistance with things?	
Organized Activities Domain Score		
	Do you participate in any of the following?	Earned one point if checked off activity
	Ball sports (e.g., soccer handball basketball)	
	Racket sports (e.g., tennis ping pong badminton)	
	Martial arts (boxing, wresting judo karate)	
	Winter sports (skiing, snowboarding, hockey)	
	Outdoor sports (sailing climbing, biking, horse golf)	
	Dancing (ballet jazz)	
	Gym (running, fitness, CrossFit, weight training	
	Acrobatics, athletics or swimming	
	Scouts	
	Youth work with the volunteer rescue service	
	Red cross youth work	
	Youth council at their local municipality	
	Sports with a sports club/team	
	Organized recreational or extracurricular activities	
Neighbor Relationship Domain Score		
	How much do you agree or disagree with the following?	Earned 1 point if answered "Agree Somewhat" or "Strongly Agree"
	My parents have friends that live close to our home	
	My parents know many of our neighbors by name	
	My parents sometimes visit some of our neighbors	
	My neighbors sometimes visit my parents	
	Sometimes we borrow things from our neighbors	
	Our neighbors sometimes borrow things from us.	

Appendix B

Delphi Survey Methods

Aim. To determine the appropriate weights for each of the YiI domains in the multinomial logistic regression model used in the secondary data analysis.

Structure. A two-round modified Delphi consensus survey.

Panelists. 15 academic research faculty members at Reykjavik University; the list consisted of experts on adolescent mental health and were members of the department of psychology, and/or part of the ICSRA research center.

Round 1. During round 1 we performed a literature review to determine weights of each of the four YiI domains to reflect their relative impact on adolescent mental health and emotional well-being.

Round 2. During the second round we emailed a list of the YiI weights based on the literature review to panelists. They were asked to review the weights, and then respond with their feedback to an open-ended questionnaire.

Round 3. During the third round, we emailed the panelists an updated list of YiI domain weights based on the feedback from round 2. Again, we asked them to review the new weights, and then see if they decided to change their responses.

Appendix C

Focus Group Guide

INTRODUCTION:

Welcome to our focus group! Thank you for agreeing to participate in our study. My name is Katerina and I am from the United States of America. I am a doctoral student at Columbia University in New York City doing research on mental health here in Iceland. I am doing a study to learn more about adolescent mental health, and want to learn more about your opinions about programs, and where you and your friends go to get help, and things you think need to improve. I am recording this focus group so I don't miss any of your comments. After we are done, I will have the recording written down (transcribed) without your names, and then will delete the recording. Your names will not be used in any of the research materials. Your school, teachers, and parents will not be told anything we talk about here today, and we ask that you do not talk about our discussion outside this group. Let's also be respectful of everyone, and not interrupt when someone is talking. You can ask me to pause recording, and stop participating at any time. Any questions?

MENTAL HEALTH IN ICELAND:

What does "good mental health" mean to you?

What are examples of "mental health issues" that you or your friends struggle with?

How do you feel about discussing mental health issues?

How do you feel about talking to their parents/friends/teachers/coaches/doctors about mental health?

How can we make talking about mental health easier?

What sorts of changes need to happen to make youth feel more comfortable talking about mental health?

Do you or your friends sometimes feel sad or depressed or anxious?

Do sometimes do you or your friends feel so sad/depressed/anxious it makes it difficult to go to school or do daily activities?

What do you or your friends do when you feel down to feel better?

Do you ask anyone for help? If so, who?

When do you usually not feel well? Is there a certain time of day or time of the week/month?

When do you usually feel down or anxious? Is there a certain activity that makes you feel down or anxious? (e.g. sports, social media, party).

How do you feel about getting help when you are feeling down?

- How do you feel about going to a mental health counselor?
- How do you feel about calling support phone lines for help?
- How do you feel about going to their primary care doctor for help?
- How do you feel about going to support groups?

How can we make getting help for mental health issues easier for you and your friends?

Do you have ideas for programs or centers etc that would make getting help for mental health easier?
Do you have ideas for programs or centers, etc that would help when you or your friends feel depressed or anxious?

What do you do when you or a friend are feeling sad, or depressed, or need help?

Where do you go?
Who do you talk to?

Imagine a friend came to you and said they were feeling very sad, and were having trouble eating and getting their school work done. What would you do to help your friend?

Would you recommend they go to a health clinic?
Would you recommend they speak to someone? Who? Health professional or teacher, or parent?
Would you tell an adult that you are worried about your friend? Who? Health professional or teacher, or parent?

What information do you think adults should know to help you and your friends when you are struggling?

What do you wish your parents/teachers/doctors knew about youth mental health that would make talking to them easier?

How does using social media influence your mood?

Which program do you use the most?

Does using social media make you happy or stressed or depressed? Does it depend on which program you are using?
Do you think social media has a positive or negative impact on you and your friends' moods/well-being? Why?

<u>YOUTH IN ICELAND MODEL & PROGRAMMING:</u>

How is your relationship with your parents?

Do you see them daily?
Do you talk to them about school and your friends? If so, how often?
Do you do activities with them?
Do you ask them for advice?

Do your parents know what activities you do outside of school?

Do they participate/come watch your activities?
Do they know the coach or adult supervisor?

Do your parents know your friends?

Do your parents know the parents of your friends?
Do your parents know when you are hanging out with your friends?
Do your parents allow you to hang out with your friends without an adult?

Do your parents set rules for what you can do outside of school?

Do you have a curfew? If so, how do you feel about this?
Do your parents know who you hang out with?

Do you know your neighbors?

Do you get along with your neighbors?
Do your parents know your neighbors?
Do your parents get along with your neighbors?

Do you hang out with friends outside of school?

Do you get along well with your friends?

Do you trust your friends?

Would you go to your friends if you needed help or advice?

What kind of activities (clubs, sports teams, church group, etc) do you participate in outside of school?

Who else participates in the programs with you? Other people your age? Your friends?

Is there an adult present?

What impact do these programs have on you, your friends, and peers?

How does participating in these programs make you feel?

When you are feeling down or stressed about school or other things in life, does participating cheer you up?

Can you describe your relationship with the adult supervisor of your program?

If you were upset or needed help, would you go to this adult for advice?

We've talked to you about your opinions, do you think boys/girls talk about these things too?

What do you think they think?

Do you think you are overscheduled or too busy?

What activity do you want to skip or do less of?

What would you do with this free time?

CONCLUDING STATEMENT:

Thank you for taking the time to participate in this focus group! Does anyone have any questions? If not, have a wonderful rest of your day and feel free to contact me if you need any further information or have questions about the study!

Appendix D

Key Informant Interview Guide

INTRODUCTION:

Thank you for agreeing to meet with me today and participate in our study. My name is Katerina and I am from the United States of America. I am a doctoral student at Columbia University in New York City doing research on mental health here in Iceland. I am doing a study to learn more about adolescent mental health, and want to learn more about your opinions about programs, and your views on adolescent mental health in Iceland. I am recording this interview so I don't miss any of your comments. After we are done, I will transcribe the recording without your name, and then will delete the recording. Your name will not be used in any of the research materials. Do you have any questions before we get started?

MENTAL HEALTH IN ICELAND:

What do you think are mental health problems issues among Icelandic youth?

Why do you think these are problems?

How do you think youth feel discussing mental health issues?

Do you think they are comfortable talking about mental health issues?
Do you think they feel comfortable talking to their parents/friends/teachers/coaches/doctors about mental health?

How do youth feel about getting help?

How do youth feel about utilizing counseling/phone support lines/PCP/support groups?

What are resources for youth who are feeling down/depressed/anxious/stressed, or need help?

Where can they go?
Who can they talk to?
Do you think these resources are easily accessible?
Do you think there should be more? If so, what is missing?

How can the Icelandic community make talking about mental health easier for youth?

What sorts of changes need to happen to make youth feel more comfortable talking about mental health?

How can we make getting help for mental health issues easier for young people in Iceland?

What sort of changes need to happen to make youth feel more comfortable getting help/support when they need it?

Do you have ideas for programs or centers etc that would make getting help easier?

YOUTH IN ICELAND PROGRAMMING:

What can you tell me about the Youth in Iceland model?

Have you heard of this? If so, what is it?

Do you think it has had an impact (if any) on Icelandic youth health and/or behavior?

What has its impact been on adolescent substance abuse? Mental health?

Can you tell me what kind of out of school clubs, teams, programs are available in Iceland for youth?

What impact do you think they have (if any) on mental health and well-being of youth?

How do you think these programs effect youth's moods/mental health in Iceland?

What are ways these programs could be improved?

Are there any changes to the programs (organization, content, etc) that you would recommend and why?

What other kinds of programs/clubs do you think should be available and why?

Are there other activities that are affecting (positively or negatively) youth mental health in Iceland?

What are they?

How has social media impacted Icelandic adolescent mental health?

Do you feel parents today are more or less involved with their children?

Do you think they spend more time with their kids today?

Do they know what they are up to when not at home?

Do they know their friends?

Do you think this trend has a positive or negative impact on children's mental health?

Do you feel Icelandic families today know and get along with their neighbors?

Do you think this trend has a positive or negative impact on children's mental health?

What is your experience working with youth?

In what settings do you interact with youth? (work, volunteer work, etc)

What do you see as your role in helping Icelandic youth with their mental health?

For example, do youth come to you for advice?

Or do you refer youth to resources where they can receive support and/or treatment?

Data shows that substance abuse among Icelandic youth has decreased, while mental health issues (such as depression and anxiety) have increased-What is your reaction to this?

Are you surprised? Why or why not?

Do you notice any of these trends in your work with youth?

Do you think Icelandic adolescents are overscheduled or too busy?

What activities do you think should be eliminated or do less of?

What do you think they should do in this free time?

Do you think they need more time to rest or sleep?

CONCLUDING STATEMENT:

Thank you so much for participating in this interview! We really appreciate your time and insight. Do you have any questions? If not, have wonderful rest of your day, and feel free to contact me if you have any questions!