Perspectives on Incorporating Health Promotion into Post-Secondary Violin Studio Lessons: A Multi-Phase Qualitative Study

by

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Faculty of Music
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Abstract

This research explores how health promotion education can be incorporated into post-secondary violin studio lessons, and how students respond to such an integration. The research questions guiding the study are: 1) What comprises ideal health promotion education in the post-secondary violin studio; and 2) What are students’ perceptions and experiences with lessons that incorporate this health promotion education?

A multiphase qualitative design was employed to include the voices of various key players, including instructors, health practitioners, and students. The first phase consisted of interviews and lesson observations with four post-secondary violin studio instructors. The second phase comprised interviews with five health practitioners who work with injured violinists: an osteopath, massage therapist, chiropractor, physiotherapist, and physician. From these two phases, five Health Promotion Concepts were devised, comprising: warm-ups/cool-downs; anatomy education; body awareness; effective practising techniques; and a psychological component comprising mindfulness and strategies for addressing performance anxiety. The third phase involved six post-secondary violin students in a practical exploration of the Health
Promotion Concepts, by means of eight, one-hour private lessons with the researcher, initial and follow-up assessments, and a follow-up interview to discuss the students’ experiences with the Health Promotion Concepts.

Three overriding themes emerged across all phases: 1) A clash of values; 2) Learning is a process; and 3) Health promotion education is empowering. The recommendations made by instructors and health practitioners, combined with the reported benefits experienced by student participants, indicate that health promotion education can be an empowering and productive addition to studio music lessons. In order for these concepts to be adopted more widely, instructors need access to relevant knowledge and skills, and music education institutions must change policies and curricula to prioritise the health and wellbeing of students.
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Finally, writing a dissertation does not occur in a vacuum. As the osteopath who graciously participated in my research reminded me, our humanness is the baseline from which we perform our artistic or athletic (and I would add, academic) undertakings. In order for any of these acts to be performed well, we must “make sure that the person, on a human level, is sound.” To that end, I am appreciative of the meaningful contributions of friends and family to making me a sounder human. Acknowledgment is due to my dear former roommates and quartetmates who became my family away from home. I am similarly grateful to the Neufeldt family for welcoming me in, and especially to Erna and Aldred who have been a reliable source of caring support and advice throughout this degree.

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# Table of Contents

Acknowledgments........................................................................................................ iv

Table of Contents........................................................................................................ vii

List of Tables .................................................................................................................. xii

List of Figures ................................................................................................................ xiii

List of Appendices ......................................................................................................... xiv

Chapter 1 Introduction .................................................................................................. 1

1.1 Background for the study....................................................................................... 1

1.2 Need for the study and statement of purpose....................................................... 1

1.3 Research questions and methodology/research design....................................... 2

1.4 Key constructs........................................................................................................ 3

1.5 Chapter organization............................................................................................. 4

Chapter 2 Literature Review ......................................................................................... 5

2.1 Introduction............................................................................................................. 5

2.2 Playing-related injuries......................................................................................... 8

2.2.1 Prevalence ....................................................................................................... 9

2.2.2 Risk factors ................................................................................................... 11

2.2.3 Preventative strategies .................................................................................... 13

2.3 Changes in education ......................................................................................... 14

2.4 Role of the studio instructor................................................................................. 16

2.5 Conclusion ........................................................................................................... 18

Chapter 3 Methodology and Research Design............................................................. 20

3.1 Brief literature review of methodological influences ....................................... 20

3.2 Multi-phase qualitative research design............................................................. 22

3.3 Devising the Health Promotion Concepts......................................................... 23

3.3.1 Topic selection based on literature ............................................................... 24
3.3.2 Feedback and recommendations from instructors in phase one ..................25
3.3.3 Feedback and recommendations from health practitioners in phase two .....26
3.3.4 Feedback and recommendations from students in phase three ..................26
3.3.5 Researcher influence .............................................................................27
3.4 Ethics ........................................................................................................27
3.5 Participant selection ..................................................................................27
3.6 The role of the researcher .........................................................................28
3.7 Phase one: Violin instructors .....................................................................29
  3.7.1 Analysing the data ................................................................................31
3.8 Phase two: Health practitioners .................................................................32
  3.8.1 Analysing the data ................................................................................35
3.9 Phase three: Students ...............................................................................36
  3.9.1 Selection of questionnaires/assessments .............................................38
  3.9.2 The practical exploration lessons .........................................................41
  3.9.3 Analysing the data ................................................................................43

Chapter 4 Phase One (Violin Instructors) Findings ........................................44
4.1 Group analysis ............................................................................................44
4.2 Theme 1) Instructors fill an influential and multifaceted role .......................45
  4.2.1 Enculturating students .........................................................................46
  4.2.2 Sharing knowledge and tools to develop students’ independence ..........46
  4.2.3 Preparing students for a life in music ..................................................48
4.3 Theme 2) Every student is different and the instructor tailors their teaching to the individual’s needs .................................................................49
  4.3.1 Fostering the student’s individuality .....................................................50
  4.3.2 Helping the student find their individual efficiencies .........................51
  4.3.3 Acknowledging different phases of learning .......................................52
4.4 Theme 3) There are systemic barriers to promoting health within the existing system .................................................................54
  4.4.1 Instructors’ education.................................................................54
  4.4.2 Cultural factors........................................................................58
  4.4.3 Time constraints........................................................................60
  4.4.4 Financial barriers .......................................................................60

4.5 Theme 4) Health promotion education in music ideally needs to be proactive and holistic ........................................................................61
  4.5.1 Proactive ....................................................................................61
  4.5.2 Holistic ......................................................................................62
  4.5.3 Contrasting views ........................................................................63

4.6 Theme 5) The purpose of health promotion in music: At the heart of all of this must lie the music .................................................................64
  4.6.1 The ‘what’ and the ‘how’ ................................................................65
  4.6.2 Implications for health promotion education ..................................66
  4.6.3 Contrasting views ........................................................................67

4.7 Conclusion: Exploring the role of health promotion in studio lessons and implications for the Health Promotion Concepts ....................................................................71

Chapter 5 Phase Two (Health Practitioners) Findings ..................................................................................73

5.1 Individual analyses ............................................................................74
  5.1.1 Osteopath: A human baseline underlies individual artistic expression ........74
  5.1.2 Massage therapist: Effective music-making .......................................81
  5.1.3 Chiropractor: Adding to the student’s toolbox ....................................89
  5.1.4 Physiotherapist: Better informing instructors empowers them to better prevent injuries ..................................................................................95
  5.1.5 Physician: Individual (psychological) factors and environmental factors contribute to injury development .........................................................102

5.2 Group Analysis ................................................................................106
5.2.1 Theme 1) Instructors are influentially positioned to positively impact musicians’ health .................................................................106

5.2.2 Theme 2) Improvements in musicians’ health require that musicians have exposure to information/knowledge .................................................................110

5.2.3 Theme 3) A musician’s ability to make music is dependent on their health, including psychological health, which must be supported by the musician’s way of life ..................................................................................115

5.2.4 Theme 4) There are practices that can support health, which typically increase efficiency/effectiveness, but the existing culture often does not value such practices ..................................................................................119

5.2.5 Summary .................................................................................................................................................................................................123

Chapter 6 Phase Three (Students) Findings..........................................................................................................................................................125

6.1 Individual analyses ........................................................................................................................................................................................................126

6.1.1 Participant 1 .....................................................................................................................................................................................................126

6.1.2 Participant 2 .....................................................................................................................................................................................................131

6.1.3 Participant 3 .....................................................................................................................................................................................................133

6.1.4 Participant 4 .....................................................................................................................................................................................................139

6.1.5 Participant 5 .....................................................................................................................................................................................................143

6.1.6 Participant 6 .....................................................................................................................................................................................................147

6.2 Researcher reflections .....................................................................................................................................................................................................153

6.2.1 Theme 1) The challenge of “going against the grain” ..........................................................................................................................................................153

6.2.2 Theme 2) The challenge of personalizing lessons ..........................................................................................................................................................153

6.2.3 Theme 3) The challenge of space and logistics ..........................................................................................................................................................154

6.3 Group analysis ........................................................................................................................................................................................................155

6.3.1 Theme 1) Novelty .....................................................................................................................................................................................................156

6.3.2 Theme 2) Empowerment through increased knowledge ..................................................................................................................................................156

6.3.3 Theme 3) Different motivating factors ..........................................................................................................................................................157

Chapter 7 Conclusion ........................................................................................................................................................................................................161

7.1 General overview .....................................................................................................................................................................................................161
7.2 Acknowledgment of transformation .................................................................162

7.3 Overview of findings for phases one-three ....................................................162
   7.3.1 Phase one: Instructors ...........................................................................162
   7.3.2 Phase two: Health practitioners .............................................................162
   7.3.3 Phase three: Students ...........................................................................163

7.4 Collective findings .........................................................................................163
   7.4.1 Theme 1) A clash of values .................................................................163
   7.4.2 Theme 2) Learning is a process .............................................................166
   7.4.3 Theme 3) Health promotion education is empowering .........................167

7.5 Recommendations for future research .........................................................168

7.6 Recommendations for practice/conclusion ....................................................168

References .............................................................................................................170

Appendix I: Information and consent letter .......................................................174

Appendix II: Researcher-developed questionnaire .............................................175

Appendix III: Resources for student participants .............................................178

Appendix IV: Lesson summaries ........................................................................180
List of Tables

Table 1. Devising the Health Promotion Concepts ................................................................. 24

Table 2. Phase one, group analysis ......................................................................................... 45
List of Figures

Figure 1. Phases of the research................................................................. 3

Figure 2. The 'what' and the 'how'.............................................................. 66

Figure 3. Osteopath: A human baseline underlies individual artistic expression.............. 74

Figure 4. Massage therapist: Effective music-making........................................ 81

Figure 5. Chiropractor: Adding to the student's toolbox ..................................... 89

Figure 6. Physiotherapist: Better informing instructors empowers them to better prevent injuries ......................................................................................... 95

Figure 7. Physician: Individual (psychological) factors and environmental factors contribute to injury development ................................................................. 102
List of Appendices

Appendix I: Information and consent letter ................................................................. 174

Appendix II: Researcher-developed questionnaire ......................................................... 175

Appendix III: Resources for student participants ......................................................... 178

Appendix IV: Lesson summaries .................................................................................. 180
Chapter 1
Introduction

1.1 Background for the study

Research studies and media stories alike are increasingly shedding light on the health challenges faced by performing musicians across genres. Within the Western Art Music tradition, there is a growing awareness of the wide range of potential physical and psychological implications of training and performing such exacting and repetitive movements as are required to produce the music. Indeed, playing-related injuries have been shown to be remarkably prevalent amongst musicians, affecting upwards of 80% of professional orchestral musicians (Kaufman-Cohen & Ratzon, 2011; Ackermann, Driscoll, & Kenny, 2012; Fotiadis, Fotiadou, Kokaridas, & Mylonas, 2013) and can have wide-reaching implications for the affected musician, impacting their physical, psychological, social, and economic wellbeing (see, for instance, Guptill, 2011). In response to these ailments, the field of performing arts medicine has emerged, seeking not only to help injured musicians address their ailments, but equally importantly, to identify prophylactic measures to help maintain the health and wellbeing of performing artists.

1.2 Need for the study and statement of purpose

The current research has evolved out of this much-cited need for improved injury prevention education for musicians (e.g. Fry, 1986; Fry 1987; Lockwood, 1988; Blackie, Stone, & Tiernan, 1999; Spahn, Richter, & Zschocke, 2002; Williamon & Thompson, 2006; Barton & Feinberg, 2008; Guptill & Zaza, 2010; Martin & Farias, 2013; Spahn, Nusseck, & Zander, 2014). The purpose of this research is to explore how health promotion education can be incorporated into post-secondary violin studio lessons, and how students respond to such an integration. I became interested in this topic first upon entering my undergraduate degree where I was shocked by the number of students already experiencing playing-related injuries. Throughout my degree, I worked with a health practitioner and came to recognize the tremendous value of the information and skills developed through these interactions. After my undergraduate degree, I continued in my studies with a master’s degree in violin performance, which I coupled with completing a two-year yoga teacher training programme. In the process, I gained a strong appreciation for the knowledge and abilities acquired through my yoga training, and the significant benefits they yielded in my own musical development. Through exploring the topic in greater depth, it became
apparent that there exists a wealth of information that is typically not addressed in conventional music lessons, that can help musicians not only experience greater wellbeing and potentially reduce the likelihood of developing injury, but also, importantly, can enhance musical performance.

A growing number of music schools are currently incorporating health and wellness classes in some form in their curricula, and research has emerged that is designed to determine the merits of these courses. There remains, however, limited research exploring the role of studio instructors in health promotion education, despite instructors’ significant power in shaping their students’ musical education (see, for instance, Kingsbury, 1988), particularly as it concerns their physical and conceptual approach to the instrument. Because these instructors can so greatly impact their students’ experiences with potential or existing playing-related injuries, and also have a profound effect on shaping their musical values, it is critical that research be conducted to determine how studio instructors can better contribute to promoting health in their students.

1.3 Research questions and methodology/research design

The research questions guiding the study are:

1. What comprises ideal health promotion education in the post-secondary violin studio;
2. What are post-secondary violin students’ perceptions and experiences with lessons that incorporate this health promotion education?

In order to explore this topic from a variety of valuable perspectives, a multiphase qualitative design was adopted, with each of the three component phases involving a different population integral to the topic: post-secondary violin instructors, health practitioners who work with injured violinists, and post-secondary violin students (see Figure 1). All phases contributed to developing the Health Promotion Concepts, and each phase was guided by additional research sub-questions. The research process was additionally shaped by ideas drawn from Freire’s *Pedagogy of the Oppressed* (1984) and Kincheloe’s *Teachers as researchers: Qualitative inquiry as a path to empowerment* (2012), and hence is lightly influenced by concepts from critical pedagogy and participatory action research.
1.4 Key constructs

One of the primary concepts being adopted in this research is that of health promotion. For the purposes of this research, the World Health Organization’s *Ottawa Charter for Health Promotion* (Public Health Agency of Canada, 1986) is being used to guide explorations on this topic. According to the Charter, “health promotion is the process of enabling people to increase control over, and to improve, their health.” Additionally, a number of the component elements of health promotion, which are identified by the Charter, are of great relevance to the current research. The elements most pertinent to the research are those that refer to the importance of enabling and ultimately empowering individuals through the development of personal skills. The two most relevant passages are included below:

**Enable**

Health promotion focuses on achieving equity in health. Health promotion action aims at reducing differences in current health status and ensuring equal opportunities and resources to enable all people to achieve their fullest health potential. This includes a secure foundation in a supportive environment, access to information, life skills and opportunities for making healthy choices. People cannot achieve their fullest health potential unless they are able to take control of those things which determine their health. This must apply equally to women and men…

**Develop personal skills**

Health promotion supports personal and social development through providing information, education for health and enhancing life skills. By so doing, it increases the options available to people to exercise more control over their own health and over their environments, and to make choices conducive to health.
Enabling people to learn throughout life, to prepare themselves for all of its stages and to cope with chronic illness and injuries is essential. This has to be facilitated in school, home, work and voluntary bodies, and within the institutions themselves.

1.5 Chapter organization

This research is presented in seven chapters. Chapter 2 explores literature pertaining to playing-related injuries and their prevention, as well as music pedagogy, in more detail, while Chapter 3 presents literature relating to methodological influences, followed by a detailed outlining of the research design undertaken for the study. The findings of each phase of the research are presented individually in Chapters 4–6, comprising the work with the studio instructors, health practitioners, and students, respectively. In Chapters 5 and 6, the findings from the health practitioners and students are presented first individually by participant before an analysis across participants is presented. Finally, Chapter 7 concludes the research by exploring some of the major themes across all phases, and suggesting directions for future research and practice.
Chapter 2
Literature Review

2.1 Introduction

Performing music is an astonishing human endeavour, requiring highly specific and repetitive movements to be executed with tremendous accuracy and speed in the service of a higher artistic goal. In order to achieve such a tremendous feat, musicians typically spend decades developing the requisite precision through intensive studies and hours of individual practice. The physical and psychological rigour of such study at times leads musicians to develop injuries directly related to their musical pursuits. Whereas athletes typically receive some anatomical or self-care education as part of their training, musicians typically receive little, if any, training in these fields, despite their similar reliance on their bodies for their craft. Furthermore, while athletes may be under constant supervision by health care professionals, musicians typically receive health care attention only after an injury has affected their ability to play. Similarly, although injuries related to sport and athletics have long been a part of common consciousness, musicians’ injuries remain much less well known. Indeed, even within both the medical and musical communities, the scope of this problem has only relatively recently been acknowledged, and the awareness thereof continues to grow.

Recent research is illuminating the remarkable prevalence of playing-related injuries amongst musicians, with documented prevalence rates upwards of 80% in professional orchestral musicians (Kaufman-Cohen & Ratzon, 2011; Ackermann, Driscoll, & Kenny, 2012; Fotiadis, Fotiadou, Kokaridas, & Mylonas, 2013). These injuries can have wide-reaching implications for the affected musician, impacting not only their physical wellbeing and capabilities, but also, by affecting the musician’s sense of self or sense of personal identity, such injuries can profoundly impact psychological and social wellbeing (see, for instance, Guptill, 2011). Importantly, especially in the professional musician, these injuries often also come at a significant economic cost, requiring expensive treatments while also eliminating the musician’s capacity to generate an income. These potentially debilitating injuries afflict not only working professionals, but also music students from pre-professional programs down to childhood. Injury rates in children have been reported ranging from nine (Fry, 1987) to 88% (Nawrocka, Mynarski, Powerska-Didkowska, Grabara, & Garbaciak, 2014), (see also Lockwood, 1988; Ranelli, Straker, & Smith,
2008). This surprisingly wide range of injury rates in children can be, at least in part, attributed to the different methodologies employed by different researchers. Indeed, Fry (1987) himself encouraged a cautious interpretation of his low rates, acknowledging that the schools in which he felt he had more methodological control gave rise to higher rates of reported injury.

Since its inception in the mid-1980s, the growing field of Performing Arts Medicine has done much to elucidate the etiology of playing-related injuries, as well as to provide insight into potential therapeutic and preventative practices. Therapeutic practices that address playing-related injuries, however, often present significant challenges for the injured musician. As previously alluded to, the financial burden of the recommended treatments presents an obstacle, and the psychological, social, and professional implications of taking the recommended time away from the instrument can be particularly daunting. Even with strict adherence to prescribed therapeutic approaches, injuries may linger or prove resistant to treatment, or even resurface months or years later, all of which are due largely to the complex psychological, technical, and physical causes of these injuries.

Based on the profound implications of playing-related injuries for the musician, combined with the challenges of treating such injuries, it is not surprising that the majority of researchers in the field emphasize the importance of injury prevention. In order for musicians to be able to more successfully prevent injury, they require an improved understanding of the potential risk factors and early symptoms, as well as knowledge of evidence-based preventative approaches. In short, musicians require improved education, and it is indeed injury prevention education that is widely considered the most effective way of reducing the rates of playing-related injuries amongst musicians (e.g. Fry, 1986; Fry 1987; Lockwood, 1988; Blackie, Stone, & Tiernan, 1999; Spahn, Richter, & Zschocke, 2002; Williamon & Thompson, 2006; Barton & Feinberg, 2008; Guptill & Zaza, 2010; Martín & Fariñas, 2013; Spahn, Nusseck, & Zander, 2014). In an attempt to address this critical educational shortfall, there has been a push within the last decade especially to initiate more preventative education programs for musicians. Post-secondary music institutions have begun implementing health and wellness courses, and more recently, a growing number of researchers have been examining the effects of these courses on the wellbeing of participating students.
Post-secondary music students present a particularly suitable target for injury prevention education as many enter their pre-professional program of choice with a pre-existing injury, only to be exposed to a multitude of injury risk factors simultaneously. These risk factors range from general health risk factors inherent in the typical lifestyle of a post-secondary student to factors specific to the music student. The former category includes lack of sleep, poor nutrition and exercise habits, and increased stress, while the latter category is dominated by the sudden changes in technique and practice habits associated with a new teacher and new playing schedule, which characterize a student’s transition to a post-secondary music school.

While general music health and wellness courses aimed at addressing these risk factors, and the associated research, are flourishing, there remains limited research exploring the role of studio instructors in injury prevention education. This lack of research is surprising given that instrumental and vocal learning, especially at more advanced levels, takes place primarily within the one-to-one studio instruction setting. Furthermore, it is widely accepted that within the post-secondary music education setting, it is the studio instructors who hold the most significant power in shaping their students’ musical education, particularly as it concerns the physical and conceptual approach to the instrument. Even health professionals who work with injured musicians regularly tout the importance of working with the studio instructor, as rehabilitation after injury typically entails some relearning and modification of instrumental technique, which occurs largely under the instructor’s, and not the health professional’s, guidance (Lederman, 2003).

Given that instructors can so greatly impact their students’ experiences with potential or existing playing-related injuries, it is critical that research be conducted to determine how studio instructors can better contribute to educating their students in injury prevention. This chapter examines existing literature on playing-related injuries and their prevalence and risk factors. It further examines proposed preventative approaches, looking at recommendations for education, and explores the role of the studio instructor as it appears in the identified literature. Finally, a new approach to addressing injury prevention in post-secondary music students is proposed, incorporating the crucial role of the studio instructor.
2.2 Playing-related injuries

Playing-related injuries in musicians are a complex issue, and while research in the relatively nascent field of Performing Arts Medicine has already provided valuable information, particularly regarding the etiology and treatment of these injuries, many questions remain unanswered. A fundamental obstacle for research in playing-related injuries is the lack of a universal definition or even universally adopted term, with these injuries at times being referred to as overuse syndrome (Fry, 1986), overuse (injury) syndrome (Fry, 1987), or often some variation of playing- or performance-related musculoskeletal disorders (PRMDs), problems (PRMPs), or symptoms (PRMS).

One researcher to have tackled this issue directly is Zaza (1995), who engaged musicians and health professionals as participants to collectively develop an operational definition for playing-related musculoskeletal disorders (PRMDs). Employing a naturalistic paradigm, Zaza conducted semi-structured interviews with 27 musicians and three health care professionals who had experience managing musicians’ PRMDs. The definition of a PRMD that emerged after the first nine participants, and then was validated by the remaining 21, was “pain, weakness, lack of control, numbness, tingling, or other symptoms that interfere with [the musician’s] ability to play [their] instrument at the level [they] are accustomed to” (p. 93). This definition has been explicitly adopted by a number of researchers (Ranelli, Straker, & Smith, 2008; Chan, Driscoll, & Ackermann, 2014), allowing for greater ease of comparison between studies. Many researchers, however, have not adopted this definition, and often specify varying time periods for their investigations (for instance, lifetime prevalence of injuries, past 12 months, at the time of the study, etc.). As a consequence of these varying definitions and qualifiers, injury prevalence studies have yielded vastly different results (Silva, Lã, & Afreixo, 2015; Kok, Huissede, Voorn, Schoones, & Nelissen, 2016), with most studies being additionally impacted by survival bias (Fishbein, Middlestadt, Ottati, Straus, & Ellis, 1988; Zaza & Farewell, 1997).

When investigating playing-related injuries, it is important to note that these injuries comprise a tremendously heterogeneous group, varying dramatically in their associated symptoms, degree of impairment, and presumed causes. Additionally, a large percentage of the injuries lack the clinical presentation necessary for a clear medical diagnosis (Lederman, 2003; Wynn Parry, 2003; Burkholder & Brandfonbrener, 2004). Finally, consideration must also be given to the fact
that conclusively differentiating injuries that were caused by playing from those that interfere with playing, but have other origins, is impractical if not impossible (Ackermann et al., 2012). Nonetheless, a significant number of researchers have sought to identify prevalence rates of injury among various musician populations, and it is to these studies that this chapter will now turn.

2.2.1 Prevalence

The earliest widely referenced studies reporting playing-related injury rates coincide with the emergence of the field of Performing Arts Medicine in the mid-1980s. Australian physician Hunter J. H. Fry conducted some of this early research, including a 1986 study of three Australian symphony orchestras, one Australian pit orchestra, three American orchestras, and a portion of an English orchestra, in which he found “an incidence of painful overuse syndrome in excess of 50% in all orchestras” (Fry, 1986, p. 55). His findings led him to declare an urgent need for education, emphasizing the preventability of these injuries.

Meanwhile, in the United States, Fishbein, Middlestadt, Ottati, Straus, and Ellis (1988) undertook a study with the 48 member orchestras of the International Conference of Symphony and Opera Musicians (ICSOM). This historic study yielded 2212 completed questionnaires from a target population of 4025 musicians, and generated significant and unprecedented results. Its magnitude and impressive scope has earned it widespread citation and acknowledgement within subsequent literature on playing-related injuries. Fishbein et al. identified a significantly higher rate of medical injuries than did Fry, with 76% of their participants reporting at least one medical problem deemed severe in terms of its effect on performance. Some of the discrepancy between Fry and Fishbein et al.’s findings can be attributed to the broader target condition; Fishbein et al.’s “medical problems” included psychological considerations such as stage fright, whereas Fry’s “overuse syndrome” was limited to musculoskeletal complaints.

Since then, much of the research on injury prevalence has aligned with Fishbein et al.’s finding of 76%, including some of the most recent studies. Kaufman-Cohen and Ratzon (2011), for instance, found that 83% of their participants (Israeli orchestral musicians) reported symptoms in at least one body region in the previous 12 months, while in Australia, Ackermann et al. (2012) found 84.4% of participants reported having “at some time in their career experienced pain or injuries that had interfered either with playing their instrument or participating in normal
orchestral rehearsals and performances” (p. 182), with 50% reporting having such pain or injury at the time of the survey. A similar definition was used with Greek musicians by Fotiadis et al. (2013) who found that “81.6% of the musicians experienced at least once during their career some kind of musculoskeletal disorder (ache, pain, or discomfort) relative to profession, with a high percentage (66.4%) of the musicians considering the specific problem to have significantly influenced their performing ability” (p. 92).

As previously mentioned, playing-related injuries are not limited to the professional population, and, on the contrary, appear remarkably prevalent among post-secondary music students. Zaza (1992) was one of the first to identify injury rates within the university population, finding that 43% of her participants, attending a Canadian university, reported that they had “ever had to stop playing because of a physical problem that [they thought] was caused by playing” (p. 50). This proviso that the injury be severe enough to necessitate a cessation of playing may have limited the number of injuries reported. Musicians, and it appears that students in particular, are very resistant to the idea of withdrawing from playing due to an injury, until the injury is severe enough to significantly affect the musician’s capacity to play either due to simple physical incapacity or severe pain (Fry, 1987; Park, Guptill, & Sumson, 2007).

Without the stipulation of time off the instrument, subsequent studies have yielded slightly higher prevalence rates. For instance, an alarming 87.7% of Guptill, Zaza, and Paul’s (2000) college music survey participants (n = 93/106) reported ever having experienced a playing-related physical problem during or after playing. In contrast, 68% of Spahn, Richter, and Zschocke’s (2002) Freiburg Conservatory participants (n = 134/197) reported that they had previously suffered from troublesome playing-related symptoms, including psychological and physical problems. In a subsequent longitudinal observational study of Freiburg University of Music students, Spahn, Nusseck, and Zander (2014) found that 51% of participants reported suffering from a playing-related problem at least once during their studies, with more than a fifth of the students reporting problems at each of the measuring points.

With injury rates ranging from 43 to 88% amongst post-secondary music students, it is clear that this population has the potential to greatly benefit from improved preventative education. Furthermore, the fact that this population is operating within an educational context ensures that there already exist lines of information dissemination, which could be used for injury prevention
education. As this population then moves into the professional sphere, they may be in a position to achieve lower rates of injury than the 50 to 84% currently reported in professional orchestral populations. In order to identify what prevention strategies would be most useful for this population, it is necessary to understand the risk factors associated with playing-related injuries.

### 2.2.2 Risk factors

There exist a number of non-modifiable risk factors for playing-related injuries, including gender, genetic predisposition, body size and structure, and hypermobility, as well as factors that are unlikely to be modified, most notably the choice of instrument. A wide variety of important risk factors, however, are under the direct control of the musician, many of which relate to individual practice habits.

Knowledge of intrinsic factors that are beyond the musician’s control can nonetheless be useful to musicians and teachers by highlighting higher-risk combinations. Of the non-modifiable intrinsic risk factors, one of the most firmly established within the existing literature is that females tend to report higher injury prevalence than males (Fry, 1987; Fishbein et al., 1988; Lockwood, 1988; Zaza, 1992; Zaza & Farewell, 1997; Spahn et al. 2002; Ranelli et al., 2008; Fotiadis et al., 2013; Baadjou, Roussel, Verbunt, Smeets, & de Bie, 2016). Various possible explanations have been forwarded for this gender discrepancy in injury prevalence, including that females tend to have smaller hands, lower levels of muscle conditioning, and higher rates of ligamentous laxity, which itself appears to be a risk factor (Burkholder & Brandfonbrener, 2004).

A notable extrinsic factor that lies beyond the musician’s control is the instrument played, as instrument groups (winds, strings, keyboard, etc.) display varying injury rates. Of the instrument groups commonly investigated, string players repeatedly present with above-average injury rates (Fishbein et al., 1988; Zaza & Farewell, 1997; Kaufman-Cohen & Ratzon, 2011; Fotiadis et al., 2013; Nawrocka et al. 2014). While Burkholder and Brandfonbrener (2004) similarly found that higher numbers of string players, and secondarily keyboard players, sought treatment at their clinic, they attributed this discrepancy largely to the relative popularity of the various instruments amongst children.

A variety of researchers have found that when participants are asked to identify factors they felt contributed to the pain or injury they experienced, participants consistently report characteristics
relating to their practices (Ackermann et al., 2012; Williamon & Thompson, 2006; Martín & Farias, 2013). Ackermann et al.’s (2012) participants identified excess muscle tension, muscle fatigue, insufficient rest, and long practice sessions as the most common factors to make a significant contribution to pain or injury occurrence. Similarly, Williamon and Thompson’s (2006) participants attributed medical complaints to bad posture, poor technique, over-practising, failure to warm up, lack of fitness, and failure to prepare mentally, while Martín and Farias’s (2013) participants reported increases in playing time, in various forms, as the principal causes of physical problems.

While participants’ opinions thereof may not be an accurate indication of the true causes of their injuries, researchers tend to agree that practice habits can have a profound effect on injury risk. Fry (1987), for instance, declares “there was virtually a 100% correlation between the onset of symptoms and an increase in the time multiplied by intensity of music practice. This was usually brought about by preparations for examination, a recital, a competition, study of a new work, a set of exercises, or a change of teacher” (p. 38). Fry does not, however, explicate the method by which he discovered this strong correlation, leading the reader to assume that the corroborating evidence may have been somewhat anecdotally acquired. Using more methodologically clear approaches, Fotiadis et al. (2013) noted an increased likelihood of injury, especially in the hand/wrist area, with increased hours of daily practice or rehearsal, while Nawrocka et al. (2014) found an increase in the risk of pain symptoms in the neck with each consecutive year of instrument practice. It is worth noting that some presumably preventative practice behaviours, namely taking breaks (Lockwood, 1988; Zaza, 1992) and warming up (Zaza, 1992), have been observed by some researchers as occurring more frequently in participants with injuries than in those without injuries. Both researchers to observe this trend, however, have concluded that the behaviours were likely a result of current or past injury, and not factors that increase the musician’s likelihood of developing an injury.

Modifiable risk factors, including a sudden increase in playing time and intensity, sudden change of technique, repertoire, or teacher, are all aspects that the studio instructor can have a significant effect in shaping. Indeed, it is these modifiable risk factors that are the primary concern of researchers and medical professionals calling for increased prevention education, as it is in this realm that education has the potential to have a profound effect. To better understand what
education may be most beneficial, it is useful to consider the existing knowledge or understanding of musicians as it concerns playing-related injuries.

One of the most illuminating studies on musicians’ knowledge of playing-related injuries is Zaza’s (1992) examination of students at a Canadian music school, in which she explicitly inquired into students’ familiarity with four conditions commonly diagnosed in injured musicians (tendinitis, focal dystonia, carpal tunnel syndrome, and thoracic outlet syndrome). Most students were unfamiliar with all conditions but tendinitis, with 93% (n = 279), 5% (n = 14), 13% (n = 39), and 3% (n = 8) of students expressing familiarity with the respective terms. Students who identified they knew what a given term meant were asked to provide a definition, which demonstrated that while 69% of the students indicated they knew the meaning of tendinitis (n = 200/292), only 29% of these students supplied a correct definition (n = 54/189). Zaza reported a few of the incorrect definitions supplied by the students as “broken nerves,” “infected nerves,” and “ripped ligaments” (p. 49) demonstrating not only a lack of medical knowledge about these specific conditions that frequently afflict musicians, but also an evident want of general anatomical comprehension.

This lack of knowledge appears not to be limited to music students, but rather exists within the professional musical community as well, fundamentally from a deficiency of education in this realm. Fotiadis et al. (2013), for instance, confirmed that 78.9% of their participants, comprising professional orchestral musicians in Greece, reported never having been informed about musculoskeletal disorders and related health issues. Evidently, the education or musical training provided is insufficient in this realm. Making a positive change in this area, however, requires that careful consideration be given to the content, as well as method of delivery, of this new information. It is this area of preventative strategies and their educational delivery that will comprise the remainder of this literature review.

2.2.3 Preventative strategies

The theoretical basis for health promotion in musicians was laid in Zaza’s (1993) outlining of a rationale and recommendations for action. Employing Green and Kreuter’s 1991 health promotion framework, called the Precede-Proceed model, Zaza performed diagnostic analyses of social, epidemiological, behavioral and environmental, educational and organizational, and administrative and policy factors. Given these considerations, Zaza concluded that modifications
to practice behaviour constituted the most logical first step for a recommended action, given its ease of manipulation and its unlikeness to cause the musician additional harm. Zaza also instructed that effectively addressing playing-related injury prevention required not only careful consideration to the strategies themselves, but also to their mode of implementation.

With this diligence in mind, Zaza (1994) subsequently forwarded practical suggestions for research-based prevention. Her recommendations comprised modifications to practice behaviours as well as other preventative strategies, all of which were based on existing research at the time, the feasibility of adopting the recommendations, an absence of negative effects both known and realistically anticipated, and, importantly, the inherent musical value of the strategies. Modifications to practice behaviours included recommendations for incorporating a musical warm-up (given the absence of conclusive data on benefits or risks of physical warm-ups and stretches), taking breaks and pacing practicing, varying the content of the practice, and incorporating cognitive rehearsal to help minimize physical repetition and enhance learning.

Other preventative strategies included fostering an awareness of body movement and posture, incorporating breathing practices, utilizing advantageous instrument adaptations, engaging in physical exercise, and learning about the anatomy of playing. She additionally recommended managing stress and anxiety levels. These strategies have all been frequently promoted in varying combinations by other researchers, including in Guptill and Zaza’s (2010) article aimed at providing music teachers with evidence-based prevention strategies, which further emphasizes the role of tension and technique and the importance of nurturing increased awareness of tension.

As the very existence of Guptill and Zaza’s (2010) article would suggest, these preventative strategies are all firmly within the teaching domain of the studio instructor. This fact gives further credence to the importance of engaging the studio instructor in injury prevention education.

### 2.3 Changes in education

The importance of prevention education has long been trumpeted by researchers and medical professionals working with injured musicians, and yet studies with university students (Zaza, 1992) as well as professional musicians (Fotiadis et al., 2013) have shown that there is a distinct lack of education surrounding musculoskeletal disorders and musicians’ health within the typical
musician’s formal education. In light of the problem, a conference and partnerships have been organized, under the title of Health Promotion in Schools of Music, with the goal of helping “schools of music to prevent occupational injuries associated with learning and performing music” (Chesky, Dawson, & Manchester, 2006, p. 142). In response to these guidelines, the National Association of Schools of Music (NASM), the official accrediting agency for degree-granting music schools, colleges, conservatories, and universities in the United States of America, has incorporated specific health and safety guidelines into its Handbook (see, for instance, NASM Handbook 2015-16, p. 65).

Some institutions, particularly in Europe, have offered musicians’ health courses for years, and these NASM guidelines have provided significant incentive for many American institutions to likewise introduce health promotion into their programming (for a description of an early prevention program that remains relevant, informative, and inspirational, see Spaulding’s (1988) description of the Trøndelag Musikkonservatorium in Trondheim, Norway).

More recently adopted health promotion courses have been the subject of several studies, aimed at determining their effectiveness (Spahn, Hildebrandt, & Seidenglanz, 2001; Barton & Feinberg, 2008; Zander, Voltmer, & Spahn, 2010; Martín & Farias, 2013). The four courses under examination by these researchers share a number of commonalities, including an emphasis not only on theoretical, but also on practical or application-based learning, and notably, all four studies reported positive results, although the exact benefits varied between studies.

One striking difference is evident in the results obtained by Zander et al. (2010), as compared to Martín and Farias (2013). While the intervention performed by Zander et al. was found to yield positive effects on performance and preventative effects on psychological health, no physical health benefits were observed. The authors attribute the lack of physical benefits to the fact that students with existing injuries require individualized therapy and consequently are not well-served by the group setting of the course. In contrast, Martín and Farias (2013) found that whereas 77 of the 90 students in their experimental group reported suffering from physical problems at the initial evaluation, only 17 reported such problems on the final evaluation, after the intervention. Interestingly, their study was the only one to incorporate an individual lesson component in addition to the group theoretical and practical sections. Additionally, it was the only study of the four to use a randomized control group. These results further suggest that
engaging the studio instructor in preventative education may yield increasingly positive results. As the importance of the studio instructor’s role has frequently been alluded to, an examination of the nature of this role is warranted.

2.4 Role of the studio instructor

Musical instrument and voice training, particularly at the higher levels, occurs primarily in the one-to-one setting of studio lessons, loosely resembling an apprenticeship model. These studio lessons comprise a pivotal and irreplaceable component of musical training and, as will be further examined, studio instructors’ relationships with their students are typically profoundly influential and impactful (Persson, 1994; Gaunt, 2008; Carey & Grant, 2015). It is therefore surprising that training in music education has largely focused on developing teachers for the classroom setting with little guidance for future studio instructors (Persson, 1996). As such, form and content of instruction can vary tremendously between instructors. Furthermore, with its clear distinction between master and pupil, this learning environment has the potential to be largely dominated by the teacher, exaggerating the potential for large disparities between instructors’ teaching approaches and priorities (Persson, 1994).

In his widely-cited extensive ethnographic case study of an American conservatory of music, Kingsbury (1988) identified that a key aspect to the culture of the conservatory was the continuation of an aural tradition through highly varied and individualistic teaching approaches determined by each instructor’s unique pedagogical lineage. Furthermore, he recognized the studio instructors as not only the driving forces behind their students’ education, but indeed as the nodal points, or centers of power, that determined the entire social organization of the school.

This distinctive position of power within the social structure of the music school distinguishes studio instructors as the most influential group for affecting students’ adoption of healthy musical practices and injury prevention strategies (Zaza, 1993). Even within the context of a post-secondary music school with a general injury prevention course, the individual studio instructors can strongly influence their students’ interest in, receptivity to, and likelihood of adopting, healthy approaches to their instrument. On this topic, Spaulding, then director of the injury prevention program at Trøndelag Musikkonservatorium, declared that “the role of the major instrument teacher in supporting the student’s participation in preventive classes and
promoting health awareness makes a vast difference in the student’s attitude toward taking the time to make prevention work” (Spaulding, 1988, p. 138).

The reasons studio instructors have such influence and authority within the advanced music educational setting are many. Fundamentally, music students typically receive the most individual mentoring from their studio instructors, accruing a significant number of one-to-one hours every year of their schooling. With such extensive individualized instruction time, it is usually these instructors who consequently have the greatest influence on the student’s physical and conceptual approach to their instrument and, more generally, their music.

From a pragmatic perspective, the studio instructor typically has the greatest impact on how a student physically interfaces with their instrument. Indeed, many studio lesson hours are spent developing and refining the student’s technique. Poor or inefficient technique can easily contribute to increasing the likelihood of developing an injury, and it is because of this frequent focus on technique within studio lessons that medical professionals repeatedly stress the importance of the instructor’s careful technical guidance in injury prevention as well as rehabilitation (Lockwood, 1988; Lederman, 2003; Wynn Parry, 2003; Burkholder & Brandonbrener, 2004). Furthermore, the one-to-one relationship of the studio instructor and student is well-suited to the identification of injury: from the teacher perspective, studio instructors are in a privileged position to observe the earliest indicators of a physical problem; from the student perspective, the closeness of the relationship means that students often go first to their instructors for advice when an injury arises (Blackie et al., 1999; Williamon & Thompson, 2006; Park et al., 2007; Martín & Farias, 2013), placing the instructor in a powerful position to encourage the student to take appropriate actions to maintain their health.

Indeed, most students report that the majority of their knowledge about health and injury prevention comes from their studio instructor (Blackie et al., 1999; Williamon & Thompson, 2006; Park et al., 2007). Undergraduate students view playing-related injuries as having a controllable aspect, and believe that following their teacher’s advice could help prevent such injuries (Spahn et al., 2002; Williamon & Thompson, 2006; Park et al., 2007). Unfortunately, instructors are often themselves poorly informed on issues relating to musicians’ health, and may inadvertently propagate unhelpful ideas rather than providing the necessary appropriate guidance for injury prevention and treatment (Williamon & Thompson, 2006).
This issue of potentially limited health knowledge among instructors has been preliminarily investigated by Hildebrandt and Nübling (2004), who offered additional physiologic education in the form of 17 weekly two-hour classes to 26 teachers. The course aimed to shift the instructors’ teaching styles to ones more inclusive of psychomotor and sensorimotor perspectives. Following the intervention, teachers in the test group reported that they had changed their teaching style, and their students confirmed at least some of these changes, including playing posture, playing movements, and verbal instructions, in separate questionnaires.

Unfortunately, this study only minimally addressed the effects of this modified teaching approach on the students, and consequently further research is needed to more fully explore these implications. Additionally, the nature of the course (17 weeks of two-hour classes) realistically prohibits its widespread adoption among studio instructors. Concepts that remain poorly researched include the current approaches studio instructors use to teach the physical aspects of playing, the extent to which and manner in which studio instructors incorporate injury prevention education into their teaching, and their own knowledge of issues relating to musicians’ health. These concepts, along with a profound understanding of the culture and value system within which these instructors are operating, must be addressed by future research. Finally, pilot investigations incorporating health promotion instruction into studio lessons are highly warranted, and provide an avenue for powerfully impacting the development of playing-related injuries in musicians.

2.5 Conclusion

Playing-related injuries continue to be remarkably prevalent within not only professional, but also student, populations, indicating a strong need for improved prevention education. Within a post-secondary music education setting, the studio instructor plays a tremendously influential role and as such represents a keystone to injury prevention. Hildebrandt and Nübling’s (2004) work presents an exciting introduction to this particularly promising approach to injury prevention, while simultaneously highlighting the need for further research in this area. In addition to these early practical results, the choice to target studio instructors is solidly supported by theoretical perspectives, namely that it is advantageous to use existing relationships of influence, students naturally learn from their teachers through observational learning, and it is easier to learn the desired behaviour initially than to try to modify it later (Zaza, 1993). The
potential implications of such research are significant: due to the existing lines of transmission of knowledge and values, impacting current students will not only affect their careers, but as the teachers of the future, will have profound effects on generations of musicians to come.
Chapter 3
Methodology and Research Design

The purpose of this research is to explore how health promotion education can be incorporated into post-secondary/pre-professional violin studio lessons, and how students respond to such an integration. Investigating such a multi-faceted topic as health promotion in music education requires a multi-dimensional approach, willing to critically examine existing practices and explore alternative possibilities. The current investigation drew inspiration from a variety of qualitative research traditions, many of which, including critical pedagogy and participatory action research, can be situated within the broader category of critical theory. While this research is not framed from a critical theory perspective, certain ideas foundational to critical pedagogy and participatory action research traditions nonetheless inspired to some extent the research questions chosen as well as the methods undertaken to study them. These influences are most evident in the work with the student participants, where I sought to actively engage the participants as partners in the practical exploration lessons, while simultaneously encouraging all involved to think critically of our own practices, learning histories, and teaching roles, where appropriate.

The topic of health promotion for musicians involves a number of key players, including musicians, from students to instructors, and health practitioners, with each of these key players bringing valuable insight and experience to the topic. As such, it is believed that their inclusion in a study of the topic can enrich the findings while also rendering them more suitable to real-life application. Given the focus on exploring the perspectives and experiences of these various key players, a qualitative multi-phase approach was adopted.

3.1 Brief literature review of methodological influences

As has been previously mentioned, this research was not devised according to a critical theory framework. Nonetheless, I was influenced by certain writings from within that tradition, most notably those of Freire (1984) and Kincheloe (2012), where concepts from critical pedagogy and participatory action research appeared to intersect. Certain key ideas from these readings helped shape the questions I asked, the methods I chose to engage with, and the meanings I drew from the data. As such, a very brief overview of some of these key concepts may help further orient the reader to the perspective taken throughout this research. Given that a discussion of Freire and
Kincheloe would be incomplete without at a minimum acknowledging critical theory, the discussion will begin by briefly exploring critical theory and its pertinent derivatives.

Critical theory emerged from the Frankfurt School in Germany during the 1930s. It has subsequently been shaped by countless thinkers and researchers, leading to a wide variety of research being undertaken in its name. A unifying trend of its many forms, however, tends to be “its ability to disrupt and challenge the status quo” (Kincheloe & McLaren, 1998, p. 260), primarily through the empowerment of individuals.

With its focus on identifying and disrupting power dynamics, it has also stimulated various offshoots in areas that traditionally enforce large power differentials. One such domain is that of pedagogy, in which educator-philosophers such as Paulo Freire have developed pedagogical models that engage students as active participants in their learning and development as critical thinkers. Freire rejected the dominant education system, which he referred to as the “banking model” of education, in which knowledgeable teachers “deposit” information into unknowledgeable students. Freire proposed instead a “problem-posing” model of education featuring a more egalitarian relationship between teacher and students who learn together from each other: “Through dialogue, the teacher-of-the-students and the students-of-the-teacher cease to exist and a new term emerges: teacher-student with students-teachers. The teacher is no longer merely the-one-who-teaches, but one who is himself taught in dialogue with the students, who in turn while being taught also teach. They become jointly responsible for a process in which all grow” (Freire, 1984, p. 67).

Freire similarly exemplified this more egalitarian approach in his research, where researchers and participants were both transformed by the research process. As summarized by Kincheloe, McLaren, and Steinberg (2013): “everyone involved in Freire’s critical research, not just the researcher, joined in the process of investigation, examination, criticism, and reinvestigation – all participants and researchers learned to see more critically, think at a more critical level, and to recognize the forces that subtly shape their lives” (p. 342). In his book, *Teachers as researchers: Qualitative inquiry as a path to empowerment*, Kincheloe (2012, p. 134) further explores the benefits of engaging students as active participants in research, reflecting on how such a practice benefits both students and teachers. He argues that by being given an opportunity to articulate their experiences and perspectives, students further organize their knowledge and understanding.
In the process, teachers are simultaneously given valuable insight to help assess the merits of and potential improvements for current teaching practices and curricula. Kincheloe (2012) acknowledges that such research is rare, stating that “few examples exist in the literature of curriculum research which make use of student perceptions of what they have learned and what it means to them” (p. 134).

Such an approach to research that draws on the knowledge, interests, and values of the community is also a key element of participatory action research (PAR). I feel that PAR’s emphasis on “respect for local knowledge” (Brydon-Miller, Kral, Maguire, Noffke, & Sabhlok, 2011, p. 389) is undeniably pivotal to making practical advances in such a complex and value-laden field as that of musicians’ health. My strong desire to include participants with varied perspectives and stakes in the topic is well expressed by Brydon-Miller et al.’s assertion “PAR stems from the understanding that knowledge(s) are plural and that those who have been systematically excluded from knowledge generation need to be active participants in the research process, especially when it is about them” (2011, p. 389).

As is fitting with Kemmis and McTaggart’s (2011) description of PAR, the current research was designed to engage “people in examining their knowledge (understandings, skills, and values)” (p. 567). Kemmis and McTaggart’s (2011) additional assertion that PAR encourages those involved “to reflect critically on how their current knowledge frames and constrains their action” (p. 567) is particularly congruent with much of the language surrounding health promotion, further reinforcing the appropriateness of adopting a PAR-informed approach to the current research. In order to facilitate the inclusion of such diverse voices, a multi-phase qualitative research design was adopted that could incorporate input from instructors, health practitioners, and students alike.

3.2 Multi-phase qualitative research design

Due to the complexity of the topic and the multitude of perspectives being incorporated, a multiphase qualitative design was adopted. This design is common in research on program development or implementation, and comprises multiple smaller projects, which may be quantitative, qualitative, or mixed methods studies, that are conducted over time, build upon each other, and serve a common research goal (Creswell, 2013). The design adopted for the current
research comprised three qualitative studies structured to develop and refine practical Health Promotion Concepts for inclusion in post-secondary violin studio lessons.

This multi-phase design enabled various stakeholders to be involved and influence subsequent phases of the research, most importantly the final exploratory lessons with the student participants. While other individuals may also play pivotal roles in the realm of post-secondary violin studio lessons, for instance parents or school administration, the perspectives of greatest interest for this research were those of the studio instructors who work with post-secondary violinists, health practitioners who treat injured violinists, and the violin students themselves. As such, the research was divided into three phases according to these groups.

Research into health promotion in studio lessons would indeed be futile if it did not consider the perspectives, values, and goals of the studio instructors themselves, and consequently, phase one of the research design consisted of interviews and lesson observations with studio violin instructors. By the end of the first phase, five potential Health Promotion Concepts for inclusion in violin studio lessons had emerged. For the second phase, the focus shifted to health practitioners who work with injured musicians. In order to draw from the wealth of clinical experience of various health practitioners working with musicians, many of whom do not publish scholarly research articles, this phase comprised interviews with a variety of health practitioners, seeking their perspectives on health promotion for musicians. Based on the findings of the first two phases, combined with my own life experiences, I undertook a practical exploration study with post-secondary violin students to further probe the potential benefits, drawbacks, and practical challenges of implementing the Health Promotion Concepts in a practical setting. Participants engaged in violin lessons designed to incorporate the Health Promotion Concepts, with me as the instructor. Following completion of these lessons, the student participants were asked to speak to their experiences with the lessons, as well as their perspectives on what they would ideally want to see included in lessons that aimed to promote health.

3.3 Devising the Health Promotion Concepts

As mentioned above, the Health Promotion Concepts were developed in four stages: a literature review, followed by the three active phases (see Table 1).
Devising the Health Promotion Concepts

<table>
<thead>
<tr>
<th>Data source:</th>
<th>Literature review</th>
<th>Phase one</th>
<th>Phase two</th>
<th>Phase three</th>
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<tbody>
<tr>
<td></td>
<td>Existing literature</td>
<td>Post-secondary violin instructors</td>
<td>Health practitioners</td>
<td>Post-secondary violin students</td>
</tr>
</tbody>
</table>

| Data generation methods used: | Interviews, lesson observations | Interviews | Practical exploration study (exploratory lessons), questionnaires, interviews |

| Concept development: | Identify potential topics | Develop topics into Concepts | Develop/refine Concepts | Develop/refine Concepts |

Table 1. Devising the Health Promotion Concepts

1. Potential topics were selected based on a review of relevant literature;
2. These topics were presented to the instructors in phase one to ask for feedback and recommendations, and were thereby developed into Health Promotion Concepts;
3. The Concepts were then presented to the health practitioners in phase two for their feedback and recommendations;
4. The modified Concepts were then explored practically through lessons with the student participants in phase three, with further modifications over the course of the exploratory lessons to fit the needs and experiences of the students. The student participants also provided final feedback and recommendations following the completion of the lessons.

3.3.1 Topic selection based on literature

I reviewed literature related to risk factors associated with playing-related injuries in musicians, as well as recommended approaches to injury prevention. Work by multiple researchers suggests that musicians regularly identify characteristics relating to their practice as factors they believe contributed to the development of their playing-related injury or pain (Ackermann et al., 2012; Martin & Farias, 2013; Williamon & Thompson, 2006). While such self-assessments may not always be the most accurate, the idea that practice characteristics contribute to injury is well supported in the literature, and indeed Zaza (1993) concludes her rationale and recommendations for action on playing-related injury prevention by recommending modifications to practice behaviour as a sound first step. Based on this body of research, I chose modifications to practice behaviour as the primary target for the Health Promotion Concepts, with the goal of adopting the
desired behaviours within the lesson environment as a means of instructing by doing, rather than by telling.

The selection of exact practice behaviours to be addressed was made largely based on Zaza’s (1994) and Guptill and Zaza’s (2010) suggestions for evidence-based injury prevention, as examined in Chapter 2. Their ideas specific to the practice session included incorporating a musical warm-up, taking breaks and pacing practising, varying the content of the practice, and incorporating cognitive rehearsal. Other recommended strategies included developing increased awareness, both of tension while playing (Guptill & Zaza, 2010) as well as more generally of body movements and positions. Zaza (1994) additionally encouraged learning about the anatomy of playing, and making use of instrument adaptations as needed, as well as incorporating breathing practices, engaging in physical exercise, and managing stress and anxiety levels. In an effort to organize the various recommendations into broader categories, I ultimately identified five topics that covered the vast majority of the recommended strategies. These five topics, which became the basis for the Health Promotion Concepts, are: warm-ups/cool-downs; anatomy education; body awareness; effective practising techniques; and a psychological component, comprising mindfulness and strategies for addressing performance anxiety.

3.3.2 Feedback and recommendations from instructors in phase one

Throughout the interviews and lesson observations with the instructors in phase one, I strove to gain a sense of the priorities of the instructors, particularly as they relate to health promotion education. Additionally, towards the end of the follow-up interview with each instructor, I outlined the five proposed topics, which by the end of this phase formed the Health Promotion Concepts, asking the instructors for feedback on the ideas suggested, and if there were topics that I had missed that should be included. The feedback received both through this direct questioning as well as through general discussions and observations profoundly impacted the direction taken in the practical exploration lessons of phase three in two main ways: by acknowledging the need for health promotion education to be tailored to each individual student; and by recognizing the importance of maintaining music at the heart of all that occurs in the lesson. In the same way that all instructor participants were emphatic about the need to work with each student individually, tailoring their musical instruction to the needs of the student, so too were the participants emphatic about the need to tailor health promotion education, rather than adopt a “one-size-fits-
all” approach. This idea strongly affected the delivery of the Health Promotion Concepts, as I sought to ensure I maintained a balance of covering the topics I felt needed to be addressed, while being responsive to each student’s needs and wishes. One of the primary outcomes of this feedback from the instructors is that the Health Promotion Concepts remained broad and fairly conceptual, rather than coalescing into a clear, precise curriculum that was identical for each student. The second guiding idea, that the music be the unifying thread throughout the lesson, similarly fostered a broad and adaptable form of the Concepts, by encouraging health promotion ideas to be included as they served the various musical selections and challenges presented by each student, rather than health promotion ideas being instructed dogmatically according to a precise curriculum schedule. During the exploratory lessons, there was a constant negotiation between presenting and exploring ideas inherent to the Health Promotion Concepts somewhat independently of the music, and then referring back to them in the context of working on the music, or otherwise making connections to their musical implications.

3.3.3 Feedback and recommendations from health practitioners in phase two

In the second phase, the interviews with health practitioners provided significant discussions of (occasionally conflicting) health promotion ideas for my consideration. Additionally, each participant was asked towards the end of the interview for feedback and recommendations on the five Health Promotion Concepts. In contrast to the instructors’ feedback in phase one, much of the feedback from health professionals comprised specific recommendations for inclusion, for instance warm-ups or stretches to teach, anatomy resources to use as teaching aids, or practice techniques to enforce. These ideas were included when feasible, with a more complete discussion on their inclusion below.

3.3.4 Feedback and recommendations from students in phase three

Student participants in phase three served as the final modifiers for the Health Promotion Concepts, as I sought to modify contents from one lesson to the next to better support the student’s needs, and to adjust ideas or their delivery when they appeared less successful. Students were also asked directly for feedback and recommendations towards the end of their follow-up interview, and some ideas from early final assessments informed subsequent lessons
with other participants. The final assessments also provided ideas for moving forward with these Concepts in other research or real-life applications.

### 3.3.5 Researcher influence

Throughout all stages of feedback and modifications, I held significant influence in shaping the Health Promotion Concepts; given that I would be the one delivering the lessons, I ensured all aspects of the proposed Concepts were ones I was comfortable instructing, and this factor influenced to some extent which recommendations were adopted. As a trained yoga instructor, I had familiarity and comfort instructing a variety of body practices as well as mindfulness practices, meaning that many of the movements or stretches that health practitioners recommended, for example, were within my comfort zone to instruct. There were, however, some movements or ideas that were recommended that I felt I either did not understand well enough myself to instruct, or that I felt uncomfortable instructing based on an apparent conflict with my own prior training and instruction, or with recommendations from the other health practitioners. In such cases, I chose not to instruct these specific movements/ideas but rather endeavoured to incorporate the broader underlying concepts whenever possible.

### 3.4 Ethics

Institutional ethics approval was obtained from the University of Toronto for all components of the research, and all participants granted informed consent (see Appendix I for an example of a consent letter for phase three). Participants were regularly reminded verbally that they were free to withdraw from the study at any time. Efforts have been made to maintain the anonymity of participants by removing any obvious identifiers, such as names of individuals, organizations, and institutions. Additionally, distinct speech habits that could potentially identify individuals were removed from participant quotes.

### 3.5 Participant selection

All participants were selected using purposeful selection, which consists of “selecting information-rich cases to study, cases that by their nature and substance will illuminate the inquiry question being investigated” (Patton, 2015, p. 264). Specifically, Patton’s sixteenth selection technique, “key informants, key knowledgeables, and reputational sampling” (2015, p. 268), was employed in all three phases. As such, violin instructors with significant post-
secondary teaching experience were specifically selected, and health practitioners were contacted based on recommendations of musicians who had sought treatment from them. Similarly, undergraduate violin majors were recruited through their post-secondary academic institutions for the third phase, ensuring participants had significant lesson experience and familiarity working with a variety of instructors.

3.6 The role of the researcher

Consistent with the view of most qualitative researchers, I acknowledge that as the researcher, I am the primary instrument of research, thereby influencing the data throughout all stages of the research process. My own beliefs, values, and unique life experiences have shaped the research questions selected as well as the method chosen for exploring them, particularly my tendency for qualitative curiosities and my interest in using teaching as a means to help empower individuals. My own life experiences and personal and professional contacts influenced participant selection, and the nature of my existing relationship with many of the participants affected our interactions. I perceived these influences in particular in the interviews of phase one and two, where a seeming desire to maintain professional responses in some of the participants contrasted with an apparent comfort with openness and expressing vulnerability in others. My own words and actions also inevitably influenced the participants’ responses to questions, perhaps especially for participants with whom I did not have an existing relationship. Finally, my interpretation of the data generated by all these interactions is again shaped by my previous life experiences and beliefs, and as such, I make no claims that other researchers working with the same participants would necessarily draw the same conclusions. In this respect, my position is consistent with that expressed by Finlay (2002, p. 531):

As qualitative researchers, we understand that the researcher is a central figure who influences the collection, selection, and interpretation of data. Our behavior will always affect participants’ responses, thereby influencing the direction of findings. Meanings are seen to be negotiated between researcher and researched within a particular social context so that another researcher in a different relationship will unfold a different story. Research is thus regarded as a joint product of the participants, the researcher, and their relationship: It is co-constituted.
My views on the value of interviews is thus consistent with both Finlay (2002) and Freire (1984): rather than viewing the interview as a tool for unearthing the participant’s latent, fixed beliefs, I feel that both the participants’ and researcher’s perspectives can be shaped or given new meaning by engaging in such discussions.

Given these considerations, it is impractical if not impossible to attempt to achieve rigour through objectivity or replicability. Instead, many qualitative researchers seek to establish rigour through the use of reflexivity, or “thoughtful, conscious self-awareness” (Finlay, 2002, p. 532). In the present study, rigour is achieved by stating methodological influences and by clearly articulating the methods used to develop and interpret the data. Additionally, multiple data sources were used over the course of the research to increase the variety and adequacy of data; a concept referred to by many qualitative researchers as “triangulation” (Morrow, 2005, p. 255). These data sources include interviews (all phases), participant checks (all phases), field notes from observations (all phases, especially phase one), institutional policy documents or the absence thereof (phase one), and questionnaires (phase three). I additionally made use of journaling to record observations, reflections, and key decisions. Given the variety of data collected across the different phases of research, data from each phase was analysed using slightly different strategies. I have attempted to articulate these data analysis strategies as clearly as possible. It is hoped that by clarifying my methodological influences and detailing the methods used throughout the research process, I am enabling the reader to engage with the research more critically.

3.7 Phase one: Violin instructors

The purpose of this phase of the research was to explore the potential for incorporating health promotion into post-secondary studio violin lessons by examining current teaching practices. Three main sub-questions guided this phase of the research:

1. How do studio instructors teach the physical motions associated with violin playing?
2. How does health promotion education fit into instructors’ broader pedagogical philosophies?
3. What is the instructors’ self-perceived knowledge and comfort in teaching health promotion education?
In addition to exploring the perceived need for health promotion education from studio instructors’ perspectives, this phase was designed to inform the development of the Health Promotion Concepts by exploring current practices of both content and method of delivery. Furthermore, the purpose of the second research sub-question was to ensure that, while including the Health Promotion Concepts in lessons intentionally deviates from conventional instruction, the Concepts are nonetheless designed for seamless incorporation into lessons and still address the primary pedagogical objectives/goals/values identified by the instructors. This sensitivity to the values of the instructors is key to increasing the likelihood that instructors can adopt the Concepts into their own teaching. Finally, the third research sub-question further informs effective knowledge translation possibilities amongst studio instructors, who comprise such a crucial population for addressing health promotion in musicians.

In order to explore the topic in reasonable depth and from a few different perspectives, four post-secondary studio instructors were contacted. Participants were selected from amongst the violin faculty of a music department at a large, Canadian university. Participants were selected based on having multiple students in their studios; strong reputations as instructors, both at the University and beyond; and significant teaching experience. All participants had a minimum of ten years of teaching experience at the post-secondary level, and had multiple students at the university, with additional students at other institutions or studying with them privately. All participants focused on teaching older, more advanced students, typically at the high school age or older, and were experts in the field of post-secondary violin instruction. The selected participants comprised two females and two males, and it is worth noting that all four of the selected participants were instructors with whom I had studied in some capacity at some point in the previous decade.

The participants were contacted via email to determine potential interest in participating in the research, and all four participants contacted agreed to participate fully. Their participation comprised an initial interview, after which I observed four or five lessons taught by each instructor, and ended with a follow-up interview to discuss topics that had arisen through the lesson observations. All interviews were conducted at a location of the participant’s choice, and permission was granted individually for each lesson observation. Initial interviews lasted between 22 and 75 minutes, with follow-up interviews lasting between 19 and 37 minutes. Transcripts of the interviews generated a total of 66 pages of text across all interviews. In total, I
observed 19 lessons (five lessons with three of the participants, four lessons with one participant), generating 43 pages of observation notes.

Interviews were semi-structured, comprising common questions across the participants, as well as more in-depth discussions on topics of importance to the participant. I transcribed all interviews and sent transcripts back to the participants for optional editing (participant checks). Some participants expressed concerns about being perceived less academically than they would like, due in part to the presence of words such as “uh” or “like” in the transcripts. I have attempted to eliminate the majority of such words in the quotes presented here without distorting the nature of the comment.

Lesson observations were conducted in the instructors’ teaching studios, where I tried to adopt as unobtrusive a position as possible. At the beginning of the lesson, I briefly introduced myself and the nature of my research and was then usually silent for the remainder of the lesson. Occasionally, instructors would engage me in dialogue about different challenges that arose with the student, or ask students to explain to me what specifically they were working on, but for the most part, I took on the role of non-participant observer. The focus of my observations was largely on the methods or strategies instructors used to teach, particularly when dealing with physical aspects of playing the instrument. Observations were also made regarding the focus of the lesson, by observing approximately how much time was spent on various aspects or tasks (e.g. technique vs. repertoire, student playing vs. teacher demonstrating). Notes were also made of any observations that seemed to contradict something that had been discussed in the initial interview, for discussion in the follow-up interview.

3.7.1 Analysing the data

The data for this phase of the research comprised the interview transcripts, field notes from the lesson observations, and researcher journal entries. Field notes were analysed first to stimulate additional questions for the follow-up interviews. This analysis consisted primarily of identifying and then colour-coding various teaching strategies repeatedly used (e.g. demonstrations by the instructor on their violin, using hands-on manipulations of the student, giving verbal instructions, providing metaphors or images, etc.). Other qualities were notated on the field notes, with extensive repetitions of these qualities being recorded as trends, both within individual instructors and across instructors.
I subsequently reviewed all interview transcripts, recording all concepts I felt were important to
the participant. These concepts were then compared to those generated by the analysis of the
field notes, and to my journal entries, with additions made as necessary. I then returned to the
transcripts, and drew out all quotes that I felt addressed something of importance for the
participant. These quotes were then organized across participants and grouped according to
larger topics and themes. While I have attempted to acknowledge the distinct positions of the
different participants, the data was primarily analysed for themes across all participants. As such,
the instructors’ data (phase one) is the only data that is presented exclusively in group form, and
not first by individual participant. I have nonetheless attempted to retain individualities in the
presentation of the grouped data.

3.8 Phase two: Health practitioners

The purpose of this phase of the research was to explore musicians’ health from the perspective
of health practitioners who treat injured musicians. This phase again addressed the first research
question, in this case by investigating what comprises ideal injury prevention education from
health practitioners’ perspectives. Again, three research sub-questions guided this phase of the
study:

1. What knowledge do health practitioners feel is important for violinists to have?
2. What are health practitioners’ views on current violin pedagogy as it relates to health
   promotion?
3. What are health practitioners’ views on elements of the Health Promotion Concepts?

In an effort to explore the diversity of insights of various health practitioners, five practitioners
from different modalities that are regularly sought by injured musicians were selected to

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1 Framing the issue as musicians’ injuries, rather than more broadly exploring musicians’ health and
wellbeing, inherently stimulated findings that were weighted towards physical, rather than social, psychological, or
other aspects of health. Though not within the scope of this research, further exploration in non-physical areas of
health is warranted and arguably necessary to advance the field of health promotion in music education, as well as
musicians’ health more broadly. These other areas of health are also considered by many as inseparable from
physical health, as is evidenced by the two interviewed health practitioners who viewed such elements as
contributing, if not being at the root of, the physical injuries these practitioners were treating.
participate in the study: a chiropractor; massage therapist; osteopath;\textsuperscript{2} physician; and physiotherapist. The different health practitioners were selected not in hopes of illuminating the universal physiotherapist perspective, for instance, but rather to acknowledge that different training may foster different perspectives and hence a different focus or emphasis in promoting health in patients/clients. The modalities, as well as the individual participants, were purposefully selected (Patton, 2015, p. 264) based on recommendations musician colleagues or instructors had made to me either at some point in my musical career, or in casual discussions about my research. Recommendations from participants in the first phase of the current research (violin instructors) were also included.

The selected health practitioners were chosen deliberately on the basis of extensive known experience working with injured musicians and violinists specifically, and for being trusted and recommended by a musician patient. Practitioners’ significant experience working with injured musicians was critical for generating strong data while engaging relatively few participants. The five selected practitioners were contacted by email, through email addresses either publicly available or known to me from prior interactions, to invite their participation in the research. All five practitioners agreed to fully participate in the research and allow their data to be included.

The participants ranged from having eight to 30 years of experience working as a health practitioner with injured musicians, for a total of 95 years’ experience across the five participants. With the exception of the osteopath, all the participants worked in clinics devoted primarily if not exclusively to working with musicians. The osteopath worked largely with top-

\textsuperscript{2} Within Canada, where the research was conducted, there are two very different practices that are commonly referred to as osteopathy. Official terminology to distinguish between these two practices can vary by province, and is not necessarily adopted by the practitioners, let alone the general public, but for the purpose of this writing will be differentiated as Osteopathic Physicians and Osteopathic Manual Practitioners. Osteopathic Physicians are medical professionals who are members of their provincial College of Physicians and Surgeons and have been trained in the United States of America. They may distinguish themselves by the term Osteopathic Physician or DO (Doctor of Osteopathic Medicine, or previously Doctor of Osteopathy) (Canadian Osteopathic Association, 2017). Conversely, there are many practitioners within Canada who are trained in non-medical manual osteopathy, who may refer to their training as traditional osteopathy or osteopathic manual practice. Osteopathic Manual Practitioners may study and practice in various parts of Canada, although at the time of writing, this practice was not regulated in Ontario (Ontario Association of Osteopathic Manual Practitioners, 2017). Due in part to this lack of regulation, these practitioners are often trained in multiple modalities in addition to Osteopathic Manual Practice, such as Massage Therapy or Athletic Therapy. For the remainder of this document, the colloquially adopted term of osteopath will be used to refer to an Osteopathic Manual Practitioner in Ontario.
performing athletes as well as musicians. Three of the participants alluded to having significant musical training and personal experience with playing-related injuries prior to their health practice. Two participants were male and three were female.

Each health practitioner participated in one audio-recorded interview with me in a setting of their choosing, with interviews lasting between 40 and 75 minutes and generating a total of approximately 55 pages of transcript text. Throughout the interviews, I took occasional field notes for inclusion in the transcript (e.g. meaningful gestures without which the spoken words have limited meaning). All participants expressed enthusiasm for the topic, with comments like “I’m hard to stop once I get going on this. It’s so close to my heart,” “I can talk forever,” and “really, I could talk about this stuff forever and a year! It’s all so fun, it’s all so interesting,” or referred to aspects of their work as being their “passion.” Not surprisingly, the shortest interviews ended because the practitioner involved had a patient to see, while the longer interviews occurred when there were no imminent scheduling conflicts.

Interviews were semi-structured, allowing common topics to be covered across the participants, while providing opportunity to delve more deeply into topics of importance to the participant. After I transcribed the interviews, I sent them back to the participants for optional editing and feedback (participant checks). Due to requests by participants in the first phase of this research to exclude comments such as “uh” or “like,” such words were excluded prior to sending the transcripts to the participants. Additionally, because there are relatively few health practitioners who work primarily with musicians, distinct speech habits, for instance a stutter or frequently used word or phrase, were excluded to help avoid identifying the participants. The approved or modified transcripts were then analysed individually and collectively, as described below, to determine individual and group themes.

Given the various epistemological and axiological beliefs held by participants that became increasingly apparent over the course of the interviews, a strong argument emerged for analysing the data individually by participant. This approach enables a more holistic view of each individual participant’s perspective, allowing the reader to better understand the participant’s rationale behind his/her comments. By looking exclusively at the data in a combined, collective form, I felt that where differences were highlighted between participants’ views on a subject, the reader would be presented with such an incomplete view that their tendency may be to simply...
accept the view most aligned with their own perspective, rather than be encouraged to explore the topic from different perspectives. With this in mind, the data is presented in Chapter 5 first by individual participant, exploring the ideas that emerged as crucial to the participant’s views on health in musicians. The data is then re-explored across participants, investigating the themes common to all, as well as the nuances of contrasting views.

3.8.1 Analysing the data

I analysed the data by first going through hard copies of the transcripts, taking note of points I understood to be important to the participant, guided by the participant’s vocal inflection, word choice (e.g. “is desperately important” or “if there was any recommendation I would make”), or reiteration of the concept, in the same or a different form. I also noted quotes I felt were particularly representative of the participant’s perspective. As I observed significant variation in emphases and opinions between participants, I chose to move forward by working with each participant’s transcript individually in hopes of better retaining individuality and integrity of perspective.

Working with one participant at a time, I reviewed the annotated transcript, making a list of all the points I had identified as being important. Having acquired greater familiarity with the transcript and key concepts through this process, I returned to the unannotated, electronic transcript, and eliminated my questions and comments (as the interviewer). I then rearranged the participant’s text according to topics, eliminating passages that appeared to contribute little to the participant’s perspective, until what remained was a series of quotes grouped by topic.

At this stage, I returned to pen and paper to draw out different possible representations of the relationships between the main topics generated by the interview. Once I had achieved a schematic with which I was satisfied, I used the schematic to guide the written analysis, drawing heavily on quotes from the participant. These lengthy and numerous quotes allow the participants’ voices to be heard more clearly, which I felt was important, given their more limited ability to influence the findings. Unlike the instructors and students, with whom I had multiple interactions, the health practitioners and I only met and spoke together on one occasion and consequently they had fewer opportunities to shape or influence the data presented. Each participant is thus represented by my schematic, followed by an explanation interspersing my analysis with the participant’s own words.
Finally, once the individual analyses were completed, I sought to identify important themes across participants. I first approached the task by drawing only from my memory and impressions to list the concepts I recalled as important to the discussions with most, if not all, of the participants. I then put this list aside and returned to the annotated transcripts, the list of important points for each participant, and my journaled notes. From the transcripts, I drew quotes that I felt were representative of important concepts from each discussion, quotes that I felt addressed common opinions with other participants, and quotes that seemed to directly contradict what another participant had said. From the list of important points for each participant, I sought out any additional important quotes that had been missed, and finally from my journaled notes, I sought out any connections I had observed in prior work with the data that were missing from the current interpretation, again adding quotes as needed. The collected quotes were then organized by topic, expanding and delineating topics until clearer themes emerged that incorporated all of the quotes. This final arrangement of themes was then compared to the list initially created strictly from my memory, which proved highly congruent.

3.9 Phase three: Students

The purpose of this phase of the research was to explore the Health Promotion Concepts practically, and to stimulate discussions with post-secondary violin students about the idea of incorporating health promotion into violin studio lessons generally, and gain feedback on the Concepts specifically. This phase effectively comprised the culmination of the previous components of the study, drawing as it did from ideas generated through the research with both the violin instructors and health practitioners in order to generate a practical exploration designed to replicate fairly typical post-secondary violin studio lessons, with the addition of health promotion components. This phase was guided by a single, broad research sub-question:

1. What are students’ experiences with and perceptions of the Health Promotion Concepts?

In order to replicate the post-secondary violin lesson environment, the practical exploration consisted of eight, one-hour lessons, scheduled approximately weekly, with an initial and final assessment before the first and after the last lesson respectively. Both assessments consisted of three questionnaires and a short playing task, with the final assessment also including a brief interview exploring the participant’s experiences with the lessons. All exploratory lessons were video-recorded for later review.
Due to my interest in developing approaches for working with post-secondary violin students, it is this specific population that was targeted for the research, with participants being recruited through the post-secondary institutions at which they studied. Due to the single-site nature of the research and the need to be in close geographical proximity for regular in-person lessons, only students from two geographically similar institutions were targeted for recruitment. Emails were sent to instructors at both institutions as well as administrators when possible, with information about the research that could be forwarded on to students. Additionally, a few posters were displayed in one of the institutions. The email and posters stipulated that participants needed to be violin majors who were at least 18 years of age and had not been ordered by a health professional to observe complete rest from playing the violin due to an injury.

In the end, only participants from one institution responded to recruitment efforts, and while a few participants responded after initially receiving an email from an administrator, for many participants, it was through conversations with their instructor that they learned of and became interested in participating in the research. Additionally, while the initial intention was to recruit only current undergraduate students, a few instructors eagerly passed the information on to recent graduates who were enthusiastic about receiving free lessons. Given that the practical exploration study started in summer, graduates of the most recent academic year also appeared to have been included in the recruitment emails sent out by the institution’s administration. A total of six participants contacted me, all of whom ended up participating fully in the study and completing all eight lessons, despite the approximately 10-hour commitment required over the course of multiple weeks, and the frequent reminders that they were welcome to withdraw at any point.

Of the six participants, three were current undergraduate students and three were recent graduates from the institution. This division afforded the opportunity of working with the ideal target population (undergraduate violin students) as well as the opportunity of working with a very similar population but who were not receiving violin lessons from another instructor at the same time, and thus for whom the exploratory lessons comprised their primary musical instruction for the duration of the study. Three of the participants identified as male and three as female. Participants were almost all in their early 20s, with ages ranging from 20 to 26 years.
After expressing initial interest, all participants received an information and consent letter. The first meeting was scheduled to take 1.5 hours, allowing me to review what the participants’ involvement would entail and answer any questions participants had before conducting the initial assessment. The initial assessment consisted of three questionnaires: a researcher-developed questionnaire asking primarily about practice habits; Judge, Erez, Bono, and Thoresen’s (2003) Core Self-Evaluation Scale; and Melzack’s (1983) McGill Pain Questionnaire (for participants who reported having experienced pain related to playing the violin). The final component of the initial assessment was a short playing task for which the participant was asked to play repertoire of their choice for approximately five minutes while it was video and audio recorded, with the intent of sending these videos away for external evaluation. The final assessment also included an interview with me to explore the participants’ experiences with, and opinions on, the lessons.

3.9.1 Selection of questionnaires/assessments

While questionnaires were included that could be analysed quantitatively, it was anticipated that there would be too few participants to merit statistical analyses, given the time-intensive nature of the practical exploration (approximately 10 hours of contact time for me per participant). Instead, the questionnaires served as a rough gauge to pick up any drastic changes pre- to post-lessons that participants may be hesitant to mention to me (for instance, significant changes in pain related to playing or changes in the participant’s sense of self-worth or happiness). More importantly, the researcher-developed questionnaire was designed to explore participants’ practice habits and opinions on different topics that would be addressed in the lessons. It was felt that a paper-based questionnaire would provide a less intimidating method of reporting these ideas than being asked directly by me, particularly for the initial assessment. Finally, the questionnaires were selected to encourage participants to reflect upon potential changes in their experiences over the course of the lessons, in preparation for a deeper discussion in the final interview.

3.9.1.1 Researcher-developed questionnaire

This questionnaire (see Appendix II) was developed specifically to explore participants’ practice-related behaviours, and to investigate their views and perceived knowledge on the topics covered in the Health Promotion Concepts. The questionnaire consists of approximately 22 questions ranging from questions about duration of practice sessions to questions about warm-
up/cool-down practices to questions about playing-related pain and other playing-related challenges. The researcher-developed questionnaire was piloted with six undergraduate violin students who were ineligible to participate in the exploratory lessons due to their geographical locations, prior to being used with the study participants. The six violinists who piloted the questionnaire provided feedback on ease of use, clarity of questions, and other relevant topics that may merit inclusion in the questionnaire. Given the relatively small component of the overall study this questionnaire comprised, and that no quantitative analyses would be conducted, efforts were not made to establish internal validity.

3.9.1.2 Judge et al.’s (2003) Core Self-Evaluation Scale

Given the emphasis placed on psychological wellbeing by instructor and health practitioner participants, it was determined that a questionnaire should be included that gently addresses the topic. This scale was chosen for its concise (12 questions) and unimposing manner (5-point scale from 1 = strongly disagree to 5 = strongly agree). The scale is designed to assess the four component traits that together comprise core self-evaluation: self-esteem, generalized self-efficacy, neuroticism, and locus of control (Bono & Judge, 2003). It has been used in research on professional orchestral musicians (e.g. Kenny & Ackermann, 2015; Kenny, Driscoll, & Ackermann, 2014).

3.9.1.3 Melzack’s (1983) McGill Pain Questionnaire

The McGill Pain Questionnaire consists of word descriptors that are selected to express the individual’s subjective pain experience and has been used extensively in a variety of pain-related research (Melzack, 1975, 1983, 2005). In this study, the McGill Pain Questionnaire was employed to help identify dramatic differences in reported pain between participants’ initial and final assessments, and also to subtly provide participants with a possible vocabulary from which they could draw when discussing pain and discomfort, recognizing that pain may be present over the course of the lessons. During the lessons, I often asked participants how playing a given musical passage felt, and thus wanted participants to have a variety of ways of expressing sensations, particularly if there was pain or discomfort involved.
3.9.1.4 Playing task

The initial research design included video- and audio-recording five-minute playing examples at the initial and follow-up assessments with each participant for the purpose of sending them away for external evaluation. It was anticipated that carefully-selected external evaluators may be able to identify musical and physical improvements in the participants, which had been made over the course of the lessons, without being informed as to which audiovisual clips were from before and which were from after the lessons. In the end, the videos of the playing tasks were not sent away for external evaluation, due to a number of considerations:

1. Challenges with room bookings meant that lessons and playing tasks occurred in widely different acoustic settings, from large, resonant classrooms, to very small, acoustically dead lesson/rehearsal rooms, making comparisons between the student’s violin sound production pre- and post-lessons challenging;
2. The lessons and playing tasks frequently occurred next to rooms with other rehearsals going on, such that there was often sound bleeding from neighbouring rooms which again compromised the quality of the audio on the recordings;
3. More than one participant expressed unease or anxiety about the playing task and it being externally evaluated;
4. Efforts to visually anonymize the participants, for instance by blocking out eyes/faces, and hence potentially alleviate some of the unease for participants, would eliminate valuable information for some participants with whom reducing unnecessary motions and effort in the face and head had been a recurrent focus in lessons;
5. While participants and myself noticed changes in the participants’ playing over the course of the eight lessons, the study period was nonetheless short enough and had few enough sessions to expect to see significant change in a somewhat high-stress performance setting (e.g. a recording being sent off for external evaluation).

When it became evident that the recordings would in many cases be unable to pick up on subtle details and hence subtle changes, it was decided that the possible benefit of external evaluation no longer exceeded the possible risks and concerns expressed by the participants. Not sending the playing tasks away for external evaluation further protected participants’ identities and potential reputations in the violin music community, which was a concern for some participants.
The playing tasks nonetheless gave me valuable information for shaping the direction of the lessons (first assessment) as well as insight into how added performance stress, associated with the video recording for presumed external evaluation, affected participants’ performances and retention of concepts addressed through the lessons (final assessment). The difference between participants’ performances in the lower-stress lesson environment compared to the higher-stress performance task was particularly evident with participants who chose for their final assessment to perform repertoire that they had just been working on in the lesson.

3.9.1.5 Interview

The last component of the final assessment consisted of a semi-structured interview between myself and the participant, designed to elicit discussion on the merits and drawbacks of including health promotion in violin studio lessons generally, and the five Health Promotion Concepts specifically. These interviews ranged in length from just under 20 minutes to 35 minutes and generated a total of approximately 33 pages of text. I transcribed all interviews and sent them back to participants for feedback (participant checks). Again, comments such as “uh” were excluded prior to sending the transcripts to the participants based on the request of participants in the first phase. Some participants nonetheless expressed concern about grammatical errors upon reading their transcript. In response to this feedback, I corrected errors before including a quote in the final text wherever a more correct alternative was clearly evident and did not involve significant reconstruction of the participant’s expression. This practice also helped maintain the anonymity of participants, who had varying levels of fluency with spoken English.

3.9.2 The practical exploration lessons

The practical exploration lessons were an hour long and were scheduled approximately one week apart, depending on participants’ and my availability as well as that of the facilities. The lessons were designed to be fairly typical post-secondary violin studio lessons in many ways, but with the addition of incorporating elements of health promotion. The lessons were considered fairly typical in that they focused on working through repertoire of the student’s choice, with much of the lesson time spent alternating between playing through passages and addressing specific technical or musical challenges within those passages. Rather than comprising almost the entirety of the lesson, which would be more typical and also consistent with the lessons observed in phase one, such work comprised only a portion of the lesson, and additionally incorporated
topics and resources not typically included in conventional post-secondary violin lessons. The additional topics and resources, as well as the remainder of the lesson time, addressed elements of health promotion, specifically the five Health Promotion Concepts: warm-ups/cool-downs; anatomy education; body awareness; effective practising techniques; and mindfulness/music psychology. Consequently, almost all lessons began with warm-ups (running up the stairs or on the spot) and concluded with cool-downs (stretches or other non-violin movements), and many included a mindfulness practice (for instance, one to two minutes of noticing the breath).

Anatomy education (using online images/resources, textbook illustrations and pictures, and a skeletal model), body awareness (using a mirror/pictures/videos, or simply drawing awareness to different areas of the body), effective practising techniques (through discussions about keeping a practice log, setting appropriate goals, etc.), and music psychology topics (for instance, strategies for addressing performance anxiety) were often addressed within the context of working through a technical or musical challenge in the repertoire. In some cases, such topics were introduced independently from the repertoire, and then were subsequently referenced throughout the practical, repertoire-based work.

Throughout the planning and execution of this phase, I was cognizant of incorporating ideas from phase one with the instructors, namely that: 1) every student is different and as such, there is no one-size-fits-all approach to health promotion education with students; and 2) it is important that music remain at the heart of all practices incorporated in lessons. As a result, while an effort was made to include aspects of all five Concepts with each of the participants, lessons were largely dictated by the interests, needs, and explicit requests of the participants, and hence a very different balance of the Concepts was achieved across the participants.

As phase three progressed, the lessons evolved, both within each participant and across participants, in response to feedback provided by participants. Mindfulness practices, for instance, became a standard part of every lesson for many of the participants, after some initial positive feedback on that component from earlier participants. One of the participants also requested a summary of some of the concepts addressed in the lessons together. In response to this participant’s request, I prepared documents for all of the participants to receive after completion of the study, including a generic resource guide (see Appendix III) and a more personalized brief summary document outlining a few of the key topics covered in the lessons, excluding repertoire-specific content (see Appendix IV). I prepared the documents by reviewing
all lesson videos and my field notes to confirm topics covered in the lessons. Viewed collectively, the lesson summaries illustrate the common focal points across participants in order to address the five Health Promotion Concepts, while also showing some of the individual variety that resulted from responding to each student’s unique needs and interests.

3.9.3 Analysing the data

Many different sources of data were used, including the questionnaire data, interview transcripts, lesson video-recordings, and my researcher journal entries. Based on the individual nature of participants’ experiences with the exploratory lessons, data was first analysed individually by participant. In this approach, the questionnaire data was reviewed first, with dramatic differences between pre- and post-lesson assessments being recorded. Subsequently, interview transcripts were reviewed, recording all concepts I felt were important to the participant. An electronic version of the transcript was then used to rearrange the participant’s text according to topics to identify main themes. I then reviewed the eight hours of lesson video to seek further substantiation of the importance of the determined themes, as well as identify any that may have been missed. Finally, the findings obtained from the questionnaire data, two methods of interview analysis, video recordings, and researcher journal entries were compared and contrasted to generate an overall interpretation. Once individual analyses were completed, I identified themes across participants, noting recurrent themes from within the individual analyses and drawing from my journal entries.
Chapter 4
Phase One (Violin Instructors) Findings

The purpose of this phase of the research was to explore the violin instructor’s role and how health promotion education relates to and might fit within this role, by examining current practices. The three sub-questions guiding this phase of the research were:

1. How do studio instructors teach the physical motions associated with violin playing?
2. How does health promotion education fit into instructors’ broader pedagogical philosophies?
3. What is the instructors’ self-perceived knowledge and comfort in teaching health promotion education?

Four violin studio instructors from a music department at a large, Canadian university participated in this phase of the research, which comprised an initial interview with each participant, observing four or five of their lessons, and a follow-up interview. The observations made during the lessons helped inform the direction of the follow-up interviews, as well as enriched the data generated by the interviews. While all data was analysed for common themes across participants, efforts were also made to retain individual variations in perspectives, and these nuances and occasional contradictions are included along with the common themes throughout this chapter.

4.1 Group analysis

Five primary themes and their respective subthemes emerged from the interviews and observations, as presented in Table 2.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subthemes</th>
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| 1. Instructors fill an influential and multifaceted role; | • Enculturating students  
• Sharing knowledge and tools to develop students’ independence  
• Preparing students for a life in music |
| 2. Every student is different and the instructor tailors their teaching to the individual’s needs; | • Fostering the student’s individuality  
• Helping the student find their individual efficiencies |
3. There are systemic barriers to promoting health within the existing system;

- Acknowledging different phases of learning
- Instructors’ education
- Cultural factors
- Time constraints
- Financial barriers

4. Health promotion education in music ideally needs to be proactive and holistic;

- Proactive
- Holistic
- Contrasting views

5. The purpose of health promotion in music: at the heart of all of this must lie the music.

- The ‘what’ and the ‘how’
- Implications for health promotion education
- Contrasting views

Table 2. Phase one, group analysis

4.2 Theme 1) Instructors fill an influential and multifaceted role

While the interviews with participants deliberately included a few questions specifically addressing the instructor’s role, this topic ultimately permeated the discussions in various guises. Consistent with existing literature and my own life experiences, the participants all spoke to the influential role of the studio instructor, referencing the many elements inherent in that role. Three key ideas emerged regarding inherent responsibilities: enculturating students; sharing knowledge and tools to develop students’ independence; and preparing students for a life in music.

The unique and influential nature of the studio instructor’s role was highlighted by all four participants in various ways. As one example, when asked about the primary influences on their own teaching, all four participants mentioned their own previous instructors, with some of the participants carefully listing their instructors, as well as the names of the musicians who had taught their instructors. The fact that who a musician studies with is so important for musicians in terms of how they define themselves (Kingsbury, 1988) attests to the influential role of the instructor, and was voiced specifically by Participant W: “you learn only from who you know. So, like I say, I feel very, very fortunate to have studied with all of those people.” Participant W also elaborated on why the idea of lineage or pedigree is so relevant, stating

the lineage of teaching is an important thing, because music is not a science in the same way that mathematics or chemistry is a science. It’s an art, and because of that, the sort of
inflections, the culture, the idiosyncrasies that are passed on from teacher to teacher are all part of what’s important.

4.2.1 Enculturating students

This idea of introducing the student to the culture of music was mentioned by multiple participants in different contexts. When asked, for instance, about the role of studio instructors, Participant X began by listing a number of tasks that she felt were key to the role, ultimately closing with

overall, I think that the teacher’s role is as a role model in a way, that you’re transmitting a kind of philosophy about music, and the meaning of music in your life... So, the priorities that you exhibit when you teach, the things, the places that you go when you teach... over a stretch of time, if you keep coming back to the same zone, I think that becomes an important---, that becomes something that they also feel is an important purpose that you’re fulfilling in music.

Instructors’ capacities to shape their students’ understandings of the musical culture as well as their values as they relate to music speak to the capacity for instructors to potentially influence students’ views on the importance of adopting health promoting practices into their own music-making.

4.2.2 Sharing knowledge and tools to develop students’ independence

The aspect of the instructor’s role that appeared to recur in discussions with the greatest frequency was the idea of helping to develop students’ independence by providing them with the knowledge and tools necessary to identify and solve their own problems. This included fostering awareness and self-analysis as well as providing the information required for students to be able to thrive without the ongoing guidance and supervision of a mentor. All of the participants at some point alluded to this fostering of students’ independence as being part of their role, with two of the participants overtly stating it as their primary role or goal as an instructor. Participant Y, for instance, stated

my philosophy right now is that if I accept [students] into my studio, it’s my responsibility to see them through this degree and to give them the tools, the information, awareness to leave
the program and... to at least be able to continue and grow... I would love for them to be able to leave and start to be able to self-analyze and take care of themselves, realizing that any time they’re with a mentor, that’s temporary, and then they will have to think for themselves.

Similarly, Participant Z stated

\textit{my goal at the end of every undergrad degree for sure is that the students no longer really need a teacher. That they can kind of figure things out for themselves. That they understand the basics of how they need to practise, of how they should function... the idea is that at a certain point, you need to get away from the kind of idea that you get as a kid, like ‘move like this.’ Right? ‘Cause when we start as kids it’s very much like ‘you do this.’}

Participant Z’s comment also acknowledges the shift of instruction styles and goals that occurs over the course of a musician’s training, which was an idea that all participants commented on in some capacity. Participant Y corroborated this comment, remarking that, upon entering their post-secondary studies, students often expect lessons to be similar to the way they were previously, where “they’ve basically just been told what to do,” and that it takes time for students to transition to making interpretive or technical decisions for themselves. This idea of encouraging students to become more active in their music-making was echoed by Participant X who commented that as an instructor “you’re teaching [your students] also to listen to themselves so that they don’t become completely passive in the process and just do what you say.” In order to foster this more independent thinking, Participant Y frequently questioned students, asking questions like “\textit{Why are you doing what you’re doing? What are you looking for here? What are you imagining? What are you feeling? What are you thinking about technically? Just what’s your process?” She additionally sought to provide explanations for any changes she encouraged, saying

\textit{whenever I’m trying to correct something, I’m trying to tell them why; whether it’s an inefficiency, whether it’s a bracing, whether it’s a shoulder rest that’s causing a shoulder to just be completely locked... So just, again, trying to get them to want to change, not just my telling them that.}
The concept of always providing background rationale for corrections was verbalized explicitly by three of the participants, who suggested that the short instructions or corrections I often heard while observing lessons were seen out of context to the background discussions that would have necessarily occurred prior to my observations. Participant Y explained this idea by reinforcing the importance of the student developing their own ability to assess and respond appropriately:

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I \text{ would never just tell a student without all the other background. So I find that demonstrating is good, but it still doesn’t help them, because then they’re just imitating what they hear and they’re not paying attention to the act of what they’re doing and the cause and effect... It’s like, you have a puppet or one of those mannequins and you can move it, and it’ll be in the right place, and then it will actually do the right thing, but it won’t do the right thing if they don’t hear and then react as needed.}
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4.2.3 Preparing students for a life in music

A significant part of the motivation for helping students develop independence was an acknowledgment by all participants that students only have direct mentorship for a relatively short period of their musical careers, and that in some cases, an undergraduate degree comprises the last time a musician will work formally with an instructor on a regular basis. As such, participants alluded to trying to help their students develop not only those skills needed for the immediate future, but also those that would be required to help sustain long careers in music. At the forefront of skills needed for long careers was the idea that things change, and thus solutions that students have come up with so far in their lives will not serve them forever. Because of this reality, students need to have a broader awareness of guiding principles, rather than precise solutions. These concepts were referenced primarily in the context of the violinist’s physical set-up. Participant X, for instance, commented “once you’re at a school, the implication is... that this is the way you’re going to stay now. Well I don’t think people stay one way.” Participant Y expanded on this same point stating

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\text{that’s definitely one thing I remind my students of [chuckles], is that nothing’s ever set. Ever. So you think you’ve got it finally figured out, well, that’s for now. But you have to be constantly analyzing and self-analyzing and if you get a pain, or if you have a pinch, or if you, again you have to just notice that over time your body just starts to... morph... But that the way you once held your instrument may not be the way you can hold it for the rest of your}
\]
life. If something starts to go, then you have to address it, and understand why you have to address it.

Participant Z further filled out the concept by acknowledging the potential implications of subtle adjustments, while also exploring ideas beyond the physical realm:

*I think one of the difficulties when we play an instrument is that everything is so complicated and small details matter so much that it’s easy for us to kind of lose what we’re doing, lose our ability, just because maybe one day you’ve got a sore elbow and you compensate and then suddenly your bow arm doesn’t work anymore. And students in a physical way need to know how to get that back. And in a musical way, of course, they need to be able to listen to themselves and really hear what they’re doing so they don’t fall into habits of just kind of doing, of playing in a habitual way but hearing something in their head which isn’t coming out.*

The significant influence and wide reach of the instructor’s role was alluded to through a variety of comments by participants, which included exploring their task of enculturating students into the musical culture by shaping values and conveying subtle nuances of the art. Participants also frequently referenced their responsibility of helping the students to develop independence, ultimately empowering them to proceed independently in a functional manner, both for the immediate future, and for a lifetime in music.

### 4.3 Theme 2) Every student is different and the instructor tailors their teaching to the individual’s needs

The second theme was very closely tied to that of the instructor’s role, and particularly to the idea of nurturing the student’s independence. Instructors all spoke of how every student was different and that it was part of the instructor’s role to tailor their teaching to the unique strengths and weaknesses of each student. Part of acknowledging students’ differences appeared to also be a commitment to fostering the student’s individuality, helping the student find their individual efficiencies, and acknowledging different phases of learning. These ideas are all connected to the ideas discussed in relation to the first theme. Given, however, the frequency with which the idea that every student is different arose, and the apparent shift of focus from the instructor fulfilling their agenda to the student shaping the direction of the instruction, as well as a desire to further
unravel and explicate an otherwise tremendously vast and complex theme, these two themes are being explored individually.

Virtually all discussions regarding teaching strategies that the instructors employed stimulated an acknowledgement of the idea that every student is different, and thus instructors will shift their approaches to suit the student’s needs. In a discussion about how she works with technical challenges that students bring to their undergraduate studies, Participant Y commented “it’ll be different for every student. I don’t just plop a book down and say ‘okay start from A and go to Z and you’ll be the perfect violinist’ [chuckles]. It doesn’t work that way.” Participant Z similarly stated “in music, we’re always tailoring our individual instruction to the one person that’s in the room for that hour;” with Participant Y furthering this idea to acknowledge that this tailoring was also reflected in assessments: “every student is different, so expectations are adjusted.” One of the ways in which this acknowledgment of individual differences manifested itself was in the instructors encouraging their students to develop their own musical voice.

4.3.1 Fostering the student’s individuality

All participants brought up in the interviews the importance of encouraging students to develop their own musical and technical solutions; a trait that I similarly noted in the lesson observations. Often in the lessons, instructors would suggest a possible solution or alternative to something that was not working for the student, but would then encourage the student to determine whether this solution was indeed comfortable for them, and to explore other possible solutions. Another manifestation of fostering the student’s individuality was instructors’ hesitation to demonstrate solutions on the violin. This idea was particularly evident with three of the participants who fairly rarely demonstrated passages on their instruments; one of whom almost never demonstrated. Three of the participants explicitly mentioned their rationales for why they may not want to rely too heavily on demonstration, including the participant who used demonstration most frequently:

- Participant W: I think one thing you don’t want to do as a teacher is to turn out a whole bunch of carbon-copy clones of yourself... Because the only way you can really be something is to be yourself, because no one can be better than you at being yourself. So that’s why I think that the whole imitation, playing-along thing has its limitations although it’s in certain
ways the most effective way to teach younger students or people who need--, so it depends on what the person needs.

• Participant Y: So some students, you know, I will demonstrate, but I’m trying to learn the art of articulating what I’m after as well, because it’s just too easy for them to imitate.

• Participant Z: If I have students that are really good mimics, I try not to demonstrate very much. Because I have some students that can really just copy anything I do. And so I find that when I’m playing too much they end up sounding just exactly like me. And that’s not really the goal.

In addition to encouraging students to find their own musical solutions, participants also spoke to the importance of acknowledging that each student will have different ideal technical solutions, and that the instructor’s role is to guide students in discovering these solutions for themselves.

4.3.2 Helping the student find their individual efficiencies

Many of the participants at some point in the interviews commented on the idea that the violin is a challenging and awkward instrument to play, and as such, it is important that violinists find ways of approaching the instrument that take into account their unique bodies. Participant W in particular spoke to this idea saying

playing the violin is inherently an awkward thing, and the instrument was not designed ergonomically. And so a lot of violin technique is figuring out how to do this awkward motion with the least effort and the least inefficiency. So when I teach... we talk about how you create your basic technique, and it’s all based around the path of least resistance; what are the non-negotiables, and then what is negotiable, and anything that’s negotiable is basically based on how you do it with the least effort.

Participant Z further explored this topic with tangible examples of the potential differences between bodies, and how instructors can nonetheless coach students towards physical solutions that are appropriate for them:

There can’t really be a system that works for everybody. It has to do with the concept of students knowing what it feels like to be in their own body. Somebody who’s six foot four
cannot teach someone who’s five foot two exactly how to move the arm. You can say ‘look, this is how the joints are supposed to move. This is the concept of how you keep a straight bow. This is what’s going to be bad for the body. But within that, your joints aren’t going to move at exactly the same place as mine because you’re shorter and your arm is half a foot shorter, right? So work out the idea of how it’s going to move and how it feels, and I can help you with that.’

Ultimately, this idea of helping students find their individual efficiencies comprises the physical manifestation of fostering the student’s individuality, which was explored above in the context of musical or interpretive decisions. Both these interconnected ideas are additionally very closely linked to the idea of helping develop students’ independence, and is further enhanced by the idea of enculturating the student or giving them information required to make decisions that are deemed appropriate given existing musical values. The following comment by Participant Z exemplifies all these elements:

My goal is to try to teach them how to find what’s comfortable and healthy for their own positions. And it’s the same thing musically, really. It’s like I can teach them to make a phrase exactly like I do, but that doesn’t mean that that’s the correct way to do it or even that it’s better or worse. It doesn’t teach them how to think for themselves. So the idea is still there to find a way for them to figure out how they can be comfortable within their own physical space and how they can build their own musical ideas and how to think about stuff to come up with what we might call the ‘correct’ ideas or something that makes historical sense, something that’s within the styles of when the music was written.

These first two ideas of fostering the student’s musical individuality and helping them identify and develop their own physical efficiencies also brought up discussions of the manner in which such concepts are taught.

4.3.3 Acknowledging different phases of learning

In addition to acknowledging the differences between individual students, instructors spoke to the evolving needs of their students over time, and balancing priorities as they shift over the course of the student’s development, as well as over the course of a school term or year. As has been alluded to earlier, some participants spoke of how violin instruction tends to shift over a
violinist’s training from being more demonstrative and rigid, to encouraging the student to both identify and resolve challenges themselves under the instructor’s guidance, in preparation for the student working independently without a mentor. Similarly, participants spoke of how priorities shift over the course of a four-year undergraduate degree, from introducing concepts and providing definitions and explanations, to giving short corrections and supplying possible alternative solutions while encouraging the student to develop their own workable solutions. Likewise, participants spoke of shifting from working more heavily on modifying the student’s technique, especially if there are characteristics that appear likely to contribute to the development of injury, to discussing the nuances of shaping a phrase. The shape of these trajectories, however, is largely determined by the unique individual student and the technical and musical skills they bring, coupled with what the instructor identifies as priorities.

While these styles of teaching may ideally follow the overall above-mentioned trajectory, Participant Z also spoke to the potential challenge of balancing the longer-term trajectory of working towards sustainable independence, with helping the student best represent themselves on assessed performances across the degree:

One thing that you need to balance is the difference between getting somebody ready for a short-term performance and getting them ready for long-term success. ‘Cause short-term it can be very tempting just to be like, ‘okay. Two weeks ‘til your recital. This is not working. Do this, this, this, this, this. Copy this, do it like that. Okay. Now you’re going to get an ‘A.’ And we’ll worry about the rest later.’ And that can be a little bit damaging, ‘cause eventually the student’s going to start to realize that that’s going to happen. And they know, it’s like, ‘oh yeah, just right before my exam he’ll tell me exactly what to do and it’ll be fine, I’ll get a good mark, so everything’s going well, right?’ And it’s not necessarily the case.

Participant X similarly addressed the topic of the instructor’s role in preparing students for performances, and how the instructor’s role may shift to providing the physical, musical, or even psychological guidance the student most needs at that time to best represent themselves and showcase their best qualities:

At that stage, just before a concert, part of your role is to pull all the elements together in some way. It could be as simple as ‘make sure you get enough sleep before you play’ or ‘make sure you have a run-through two days before.’ Saying to somebody mid-season ‘have
a run-through’ is useless, because you haven’t put in the work. But once you’ve put in the work, if you don’t have the run-through, it all just slips away. Or if you don’t have enough sleep, or if you don’t believe that it’s beautiful, you know, if you don’t believe that you have beautiful qualities in that program that are going to overcome whatever the difficulties are. I’m not tricking anybody, as I say, it’s not that. I guess it’s you’re guiding them on how to think at that time.

In this way, the instructor’s role shifts over time in response to the changing needs of the developing student, and in order to best support the student as they tackle different external challenges, such as performances and assessments, which can derail the student’s development if not thoughtfully addressed. This challenge of attempting to fulfill specific requirements also hints at some of the systemic barriers that were raised that can prevent instructors from promoting health in their students to the extent that they may wish.

4.4 Theme 3) There are systemic barriers to promoting health within the existing system

While all participants were supportive of incorporating more health promotion education into lessons in some form, instructors also alluded to a wide variety of potential barriers to such an incorporation. These barriers included the instructors’ own education and training, factors relating to the dominant musical culture, time constraints, and financial limitations.

4.4.1 Instructors’ education

As has been previously discussed, the studio instructor plays a tremendously influential role; an idea that was reinforced by all participants referring to their own instructors as primary influences on their teaching. The absence of health promotion education in this critical component of a musician’s training easily perpetuates itself in future generations of instruction as instructors draw deeply from their own studies to inform how they themselves will teach. The fact that none of the participants reported having much health promotion education as part of their musical instruction thus logically posed a challenge for easily incorporating these ideas into their teaching. Indeed, when asked directly if their musical education had included any injury prevention education, the participants responded as follows:
• Participant W: No. But I think a good teacher finds ways the human body works most effectively.

• Participant X: No. Zero. God, no. They weren’t talking about it then.

• Participant Y: [shakes head] So I’m the perfect example. If anything, I lucked out, in that I didn’t have any technical things that were causing problems throughout my years.

• Participant Z: I would say not enough. Certainly it was something that wasn’t talked about enough when I was younger. ‘Cause one of the things that you see is that people come at the age of 18 and they have technical setups that you just, you’re like, ‘ugh! I need to fix this before I can do anything else, not because it interferes with the playing but because it’s going to cause them damage.’

When asked about opportunities for continuing education, the instructors all spoke to the great benefit of collaborating with other musicians or observing masterclasses given by colleagues. Throughout the discussions with the participants, it was regularly implied if not overtly stated that while musicians and post-secondary studio instructors specifically are constantly learning, it tends not to be in formal capacities of continuing education courses more typical of other disciplines, but rather in the countless more informal learning opportunities of working with other musicians, observing other instructors, or even learning from students. While the culture of continuous learning presents a strength for the field, the colleagues from whom instructors would be learning presumably would have similarly had, for instance, minimal health promotion education, which contributes to some topics, such as musicians’ health and wellbeing, remaining rather underdeveloped within the musical community. This deficit led some of the participants to express that they may benefit from having additional information. In a discussion about how she addresses injuries in students, Participant X, for instance, commented “I’m not completely helpless, I suppose, but what I find is I’m not specific as I wish I could be about seeing ‘ah! you’re doing this, that means this.’” She went on, however, to acknowledge the tremendous complexity of the issue and reflect on how such issues fit into her role as a violin instructor, saying “but maybe that’s above my pay grade, you know. Maybe it’s not so--., maybe I’m not alone in that... I wonder if there are many people who can help. I wonder if that’s not so simple.” Participant Y also explored the issue of where her role as an instructor lies in addressing injury, in relation to other experts and the students themselves, saying
I think [injury prevention education is] integral to my role. It’s just that I don’t have enough of the tools, so that’s why I rely on other experts, so--. I can only do so much which is try to present or help a student present in the most natural way for them, that will not cause them strain, injury. I mean there’s repetitive and there is also just fatigue, which I can’t control. But, if there is a self-awareness in the student themselves knowing when to stop, or knowing when to self-correct because of fatigue something’s starting to happen, or the fact that they’re sitting as opposed to standing, or sitting in a cramped pit, or just knowing how to address and make little changes that ultimately keep them healthier. I mean, I always offer my two cents, but again, I’m not an expert.

Despite Participant X’s hesitations about not having as much information about musicians’ health and injury prevention as she might like, she also mentioned various ways of addressing potential causes of injury by drawing entirely on the solid basis of foundational violin techniques which she did feel well-qualified to explore. This perspective was similar to that expressed by Participant W in the quote above (regarding whether or not injury prevention education had been part of his musical training) in which he described injury prevention as being primarily about teaching good technique and how the body works most effectively. Participant X added an additional layer of complexity to this perspective, however, by acknowledging that the challenge as an instructor arose when the technical explorations she as an instructor was well-equipped to undertake yielded no apparent issues, yet the student was experiencing pain.

Within the lessons that I observed, I noted a trend in which instructors regularly made use of a variety of specific and eloquent instructions and imagery as they related to technical and musical matters respectively, yet when physical or anatomical issues arose, instructors appeared to either choose more general terms or gesture to the relevant area of the body, rather than use anatomical terminology, for instance. I discussed this observation with participants in the follow-up interviews, where participants typically confirmed my observation, saying something similar to “because we don’t know what we’re talking about [laughter].” Participants often then explored the topic in greater depth, reflecting on the extent to which such knowledge might enhance their teaching or perhaps provide another tool when their preferred teaching approaches were proving unsuccessful. Participant W, for instance, commented
I would usually only go to specific muscle things if the other things aren’t working, like when you hear me get really specific, it’s partly because I’m getting a little frustrated and like just ‘this, this, this,’ because I like to—, I find that it’s better, it’s more organic if the person goes for a feeling or has an image in mind, I find that the body works better.

Participant X expressed a similar preference, and mused then on why instructors often tend to be so specific with the musical qualities:

It’s interesting because what I would say to that is, if you hadn’t asked me the first part of the question about how much precision we apply to character and sound and all this kind of stuff, then I would just say the answer is that it is a little different for everybody. So you want to direct them to the fact that their wrist needs to be, whatever, pliable, but I’m not going to tell you the precise angle, degree, because that’s a little tricky and I’m not sure—, you know what I mean? Everybody does it a little bit differently. But, of course, that’s true of music, even more so. That it should be, you know, but then I think it’s not so much ‘why aren’t you being so specific about the physical stuff’ it’s more ‘why so specific about the sound?’

Participant X’s musings speak again to the tremendous value placed on acknowledging each student as a unique individual and fostering the student’s individuality.

My observation that instructors avoided anatomical language appeared to stimulate interesting musings and reflections among a number of the participants, with Participant Y commenting on how such information may be useful if it became part of the regular discussion much earlier in a musician’s development. Responding to my observation, she said

I would say that’s completely accurate, and I would say it’s because we don’t, we don’t know enough about the body... I do think that that kind of anatomy would be useful... and so if that were integrated much earlier on and if students were certainly more aware of just how everything worked, then the conversation might take on another layer where you would say, ‘you know when you roll your shoulder in like this, you’re pinching this and this is going to cause eventually a tightening here and your ribs are going to come apart back here, and it’s all going to start to roll over. Maybe not when you’re 19, but as you get older.’
Part of the response that was cut involved Participant Y reflecting on the fact that she could not provide specific examples of an anatomical recommendation that she would offer a student, as she felt she did not possess the knowledge to name specific muscles or other structures as examples. Participant X appeared to experience a similar reflection in the first interview, related to the idea of how to work with injured violinists, and came to wonder if having some anatomical education as part of musical training may indeed serve a valuable purpose for musicians:

Participant X: *My problem is I don’t know which muscle is which, sometimes. [laughter]. But you know, again, it gets back to my feeling about hoping, again I shouldn’t hope this, because I would hope that there are plenty of great doctors out there, violin doctors, but just to soothe my feelings, that it’s not unusual not to have a really strong sense of anatomy as a violinist, because we’re not really--*,

Me: *Especially if it’s not part of the education at all.*

Participant X: *No. And maybe that’s where you should head with that. Maybe this is--, you know, if you ask me now through this discussion, you think, ‘it would be nice to know what a tendon does, frankly.’ Because I don’t think I knew until like a year ago.*

While participants may have expressed a lack of familiarity with these specific topics, it is worth re-iterating that all of the participants mentioned that they were still learning in ways that influenced their teaching, whether from interactions with other musicians, their students, or health practitioners. All participants similarly expressed an openness and interest in learning more about ideas like anatomy or psychology as it relates to music, recognizing that these topics were not often covered in their own education, but could provide useful information to enhance their teaching and performing. As such, while the participants recognized that violin instructors as a group tend not to have a lot of knowledge surrounding injury prevention and health promotion in music, their collective interest in the topic and culture of constantly learning from others suggests that this trend may change if other barriers are removed.

### 4.4.2 Cultural factors

As participants in subsequent phases of the research would frequently allude to, there is a culture amongst musicians that does not always promote healthful practices amongst musicians. As was alluded to in Chapter 2, there has historically been a tremendous amount of secrecy surrounding
physical injuries and psychological challenges amongst musicians. Participant X remarked that when it comes to physical or psychological challenges, musicians could be resources to each other, given the amount of collaboration that occurs within the field, and yet the dominant culture of hiding any personal challenges limits musicians’ ability to learn from each other:

we should be each other’s resources. I find that people are not forthcoming or nobody really wants to admit when they’re having problems. And nobody wants to admit if they’re nervous. Nobody wants to admit if they’re in a slump, or if they’re not feeling inspired, or if they don’t know what’s happened to their sound, right down to physical problems. Actual injury, or not even injury, just loss of coordination in any way. All these kinds of things are neglected… I’m not sure why that is; we’re supposed to be sensitive, what’s the problem? We’re not football players, for god’s sakes. Wrestlers. You would think of all fields, we wouldn’t have this machismo, but we really do.

Throughout the interviews, participants often made comparisons between musicians and athletes, acknowledging similarities, while also enumerating some of the key differences between the two fields. Again, Participant X brought some of these discrepancies to the fore, noting that similarly to the idea of not disclosing to others when they might be struggling with something, there is also an expectation that musicians work alone, without the constant guidance of one or more mentors looking out for their best interests:

it’s a funny thing how anybody in sports is allowed to have a coach for the rest of their life, they’re expected to. Nobody would ever show up at the Australian Open without a coach – that’s insane! – you know, without somebody keeping an eye on funny habits and going off the rails in this way, mentally, physically, any of that. Nobody would ever do that. But we do, and we’re expected to from the age of, whatever, 24 or 21 or 30. Somewhere in there we’re expected to now strike out on our own and it’s no different, it’s no different at all.

This expectation of early independence, alluded to by the tremendous importance instructors place on quickly developing their students’ independence at the post-secondary level, isolates musicians, preventing them from having a team of resources supporting their continued development and wellbeing.
4.4.3 Time constraints

Given the amount of material that must be covered in order to successfully launch a musician into their independent career phase, there is significant pressure on instructors to cover a tremendous amount of material within a relatively short time. Participant Y alluded to the challenge of balancing the many priorities during our discussion about incorporating anatomical instruction into lessons:

*there’s probably a way that I could introduce [anatomical/physical ideas] more, and the more I learn, the more I do pass along. But again, in an hour, it’s so hard. You have to decide what the priority is that day. And certainly it is keeping the student healthy. Not just physically but mentally. And the mental part is another, that’s a whole other exercise. And then there’s the musicality and just expression and emotion.*

Similarly, participants themselves felt significant time constraints as many of them strove to balance successful performance and teaching careers. They often alluded to having an interest in learning more about the topics discussed in the interviews, yet recognized that they did not have the time to take in new learning opportunities. Participants occasionally mentioned that one way of removing this barrier would be for the University to reallocate some of the instructors’ hours to continuing education. While participants agreed that this solution might lighten the burden for all, it would unfortunately still not resolve the scheduling conflicts of those instructors with extensive performing careers.

4.4.4 Financial barriers

Implicit in many of the discussions around barriers was the challenge of financial resources. Participants W and Z both spoke of how technology and research has been used in sports to advance performance. While these technologies can be easily adapted to a musical context, there was an acknowledgment that there is such a tremendous discrepancy between the finances behind sport and music that such technological adaptations will likely never be widely adopted in music. Similarly, in the realm of healthcare, musicians often lack the financial resources to be able to afford the services of those health practitioners who could provide the greatest assistance. Injured musicians often wait until the situation becomes desperate before seeking out help, eliminating any possibility of proactive solutions. A further distinction in this realm was made
between the participants as instructors, all of whom had achieved significant career success, and the students, who typically had a vastly different financial reality, with Participant Y commenting “the benefit that I’ve had over time is that I’ve met some really great people and I have people that I can go to if I need help in certain areas. But that takes money, sadly. And we don’t have those resources for students.” Discussions about the challenge of limited financial resources acknowledged the relative lack of funding for research and technological innovations in music and the arts, as well as the personal financial challenges of musicians and students specifically who are thereby limited in their ability to augment their knowledge or access healthcare to the detriment of their health and wellbeing.

4.5  Theme 4) Health promotion education in music ideally needs to be proactive and holistic

Overall, the participants were supportive of incorporating health promotion education into music training, including the studio lesson environment, and generally emphasized that such instruction would ideally start early and be of a proactive nature, and that it must be holistic in its approach.

4.5.1 Proactive

Recognizing the challenge both of addressing injuries after they have occurred, as well as trying to shift established habits and value systems, Participants X, Y, and Z all spoke to the importance of initiating health promotion education early in a musician’s development. In response to questions about whether having a student come to him with an injury affects Participant Z’s teaching of that or other students, Participant Z was emphatic about the idea that there ideally should not suddenly be a significant change in approach, because ideas crucial to promoting health should always be part of the instruction, not only as a reaction to crises occurring:

*I think the one watershed moment isn’t really a good thing; to get the injury and then be like, ‘now I’m going to fix everything.’ Again, the goal is to not have to have that watershed moment for me to realize, ‘oh my gosh. I’d better teach this better.’ The goal is always to be working in prevention and to make sure that nobody gets to the point where they’re going to have a big problem.*

Participant X and Y spoke more specifically about starting the conversations early in the student’s musical studies. When asked what injury prevention education would ideally look like,
Participant X suggested “maybe the starting point would be getting it out early so that it’s completely a part of the conversation.” Similarly, Participant Y proposed an early introduction to the concepts, and that the concepts be incorporated in such a way that they become part of a holistic approach to the instrument:

*I think it has to start even before university. It has to start with educating the next generation of teachers to insist that as part of the regime of just regular lessons, if possible, that a student, if they’re to remain healthy for a long life in music, that right from the bat, warm-up has to be integrated. And how they warm up. So mindful warming up, not just motion, but the brain and what’s this going to lead to in their practice, so how can they warm up so that it aids the rest of their practice. Yeah, so some sort of activity, I mean Alexander [Technique]-- ..., if kids were just taking motion classes, just being aware of how they get up out of a chair, how do they sit down... And all of that will hopefully play into a healthier overall being. Your mental state: ...what student thinks about just resting their mind? [chuckles] and the importance of that. And, even if it’s brief, I think it’s still beneficial. But all of that. Sort of a more holistic sort of--. It’s not just about practising your four hours and showing up to your lesson prepared. I think everyone’s realizing that it’s got to be more.*

As the above quote alludes to, participants were also emphatic about the importance of health promotion education being holistic in its conceptualization.

4.5.2 Holistic

In terms of key elements for rendering health promotion education more holistic, Participants X, Y, and Z all spoke to the importance of recognizing the contribution that psychological wellbeing makes to overall health, as well as the importance of students developing their own self-awareness. Participants Y and Z further emphasized the importance of shifting the culture towards one that embraces physical activity as a key factor in supporting the ability to physically play one’s instrument. Participant Z explored this idea in relation to the school’s role in establishing a cultural norm or expectation:

*It’s hard to say to somebody ‘you’ve gotta go to the gym,’ but if you’re doing any sort of sports, it’s just understood... And in a way, why is it so different for us? That if you’re doing a physical activity, that it’s okay that people are just not treating their bodies well? I mean*
they’re going to hurt themselves, and I think the schools need to look at how it reflects on what we do. It reflects on our training.

4.5.3 Contrasting views

Not all participants were equally passionate about there being a need for change to current education practices, as far as injury prevention or health promotion ideas were concerned. Of the participants involved, Participant W was more tempered in his conviction of the importance of such education as separate from more conventional music instruction saying

*I personally don’t really see the need for specific injury prevention education. But I do see the need for across the board making sure that teachers are teaching good technique to minimize the injuries. In other words, it’s not separate. It’s like, good technique is injury prevention, right? If you are teaching best, optimum practices, then you’re probably going to minimize injuries. It doesn’t mean you’re never going to have injuries in your studio, but you should--; I mean, if you’re getting a lot of injuries in your studio, you should look in the mirror.*

Participant W also acknowledged that injuries are not necessarily preventable for everyone, given the non-ergonomic design of the violin, and that the instructor’s role is then largely to help students who develop injuries to recover from them:

*My basic opinion is you teach everyone to play the violin in the way that is most natural for them, as best you can do it... That being said, some people are going to get injured. Just everybody’s different, right? And then your job is to help them recover and hopefully be able to play again. But I don’t think you would ever be able to prevent 100% of the people from ever getting injured, because, just the violin is an awkward thing and some people won’t be able to physically handle that. I think the vast majority of people will, and especially if you train them well. So I think your job as a teacher is to make sure that they’re not doing anything unnatural, or – we said that playing the violin is unnatural – do things with the least tension possible. And then if someone does get injured, to try to help them to recover as quickly as possible.*
Participant W later added “*I think the other thing that you need to teach is body awareness, because even if you’re playing with perfect technique and you play eight hours straight, you’re going to injure yourself.*”

It should be noted that Participant W was nonetheless supportive of my suggested health promotion topics, acknowledging that they sounded like “*good topics.*” Similar to the other participants, he acknowledged a preference for a more holistic approach, in this case one that recognized the interconnectedness of the different topics in some way:

> I guess, for myself, playing the violin or teaching the violin would be a little bit more holistic, and so it’s hard for me to concentrate on, for example, one of your topics without letting the other ones creep in, because they’d always knocking on the door like ‘oh I want to talk about that!’

While there was some variety amongst the participants’ views on whether and how health promotion education would ideally fit into the studio lesson setting, there was consensus that if incorporated, such education would ideally be holistic, with most participants emphasizing the need for music training to acknowledge the importance of musicians’ psychological as well as physical wellbeing. Some participants additionally suggested that musicians would benefit from a culture that views physical activity as an integral part of a musician’s training and general skill maintenance. These ideas emphasized proactive approaches to addressing musicians’ health and the value of including such instruction early in a musician’s training.

### 4.6 Theme 5) The purpose of health promotion in music: At the heart of all of this must lie the music

Throughout the interviews, participants often returned to the idea that the quality motivating these discussions, particularly regarding health promotion, is the music or the sound. As such, it is ultimately the sound that students are making that shapes the direction the lesson takes, and supplies the rationale for including health promotion education. Indeed, I regularly observed lessons in which a brief discussion proceeded the student playing a run-through of a section of a piece or entire program of pieces. During such play-throughs, the participants would at times observe their student, although they also frequently spent much of the time focused visually on the score, and at times even appeared to look off at nothing in particular, evidently focusing
instead on attending to the sound being produced to determine what elements needed addressing. Through the interviews, it became apparent that participants saw musical instruction ultimately comprising two components (the ‘what’ and the ‘how’), with the music or the sound comprising the ever-important ‘what.’

4.6.1 The ‘what’ and the ‘how’

The ideas of the ‘what’ and the ‘how’ of music permeated all the interviews, and yet it was not until the final interview with Participant Z that these labels were suggested. Instead, participants would talk about their role as instructors as helping students to develop musical interpretations and to then execute them. Participant X spoke clearly to the distinction between these two elements while also referencing the primacy of sound, saying

> Ultimately, I’m looking for how things sound… Does this sound good? And maybe the first question you have to ask as a teacher is ‘does she know it sounds bad, in this particular way?’ Not bad, ‘does she know what’s missing?’ If she does know what’s missing, then we have to talk about strategies [technical solutions to create the desired sound]. If she doesn’t know what’s missing, we have to talk about listening, and we have to talk about the music, and we have to talk about what’s expected from the music. And so first you have to establish, I think, whether the person hears what you hear.

Participant Z similarly clarified the distinction between the two elements, and offered the labels that have been adopted here, in the following comment:

> I think it’s all a division between the technique – what you’re doing to achieve what sound you’re trying to create – and the musical, which is basically ‘what am I trying to create?’ And I would say those are two very separate things. Within that, there’s lots of ways to do it… I would say it divides into ‘what’ and ‘how.’

Upon differentiating more clearly between the ‘what’ and the ‘how,’ it became possible to identify different techniques that the participants used in lessons to target these two different elements, which are represented in the following schematic (see Figure 2):
While the ‘what’ and the ‘how’ could be considered separate elements, they are deeply linked, as the entire purpose for developing the skills necessary for the ‘how’ is to serve the ‘what.’ Participant W made this connection clear in his comment:

> It’s interesting that you notice that teachers would kind of jump back and forth between the technical and the musical, because that’s I think what we end up doing from a practical sense, but sort of philosophically they should never be separate, they should never be distinct. It should always be, you know, if I’m doing something technically it’s just because I want this musical effect. Yeah, that’s all I can say is they should never be separated one from the other.

### 4.6.2 Implications for health promotion education

Given the primacy of sound in assessing a student’s playing, a few participants mentioned ways in which students can run into problems based on their manner of approaching the ‘what’ and the ‘how.” Both Participants X and Z spoke of how students with strong musical ideas can end up adopting potentially injurious techniques in their desire to execute the musical idea and sound of which they have such a clear vision. The consequence of such a situation is that instructors may be less likely to notice the problem if the instructor is relying primarily on sound. A few of the
participants therefore spoke of the importance of using visual information in addition to auditory information to assess their students. Participant Z explained all these concepts quite clearly, stating

*It’s a tough thing: if you close your eyes, would you be able to diagnose somebody that’s playing like that [in a way that could lead to injury]? Sometimes. Not always. I’ve had students that have managed to get away with all kinds of technical problems because they’re good musicians. And this can become the problem: somebody that’s a good musician that’s really searching for a great sound – again we’re talking about the ‘what’ and the ‘how’ – somebody that’s really good at the ‘what,’ they know what they want to produce, what sort of sound they want to come out, they can achieve that despite doing the ‘how’ incorrectly. And then you have to make sure that the ‘how’ is okay and that they do it in a way that doesn’t hurt themselves later, or even sooner.*

Participant Z’s commitment to this idea was evident in his teaching, where I observed him suggest changes to a student, not because their current approach was yielding an undesirable sound, but because he felt the student would run into problems with injury if they continued as they were doing.

The challenge with this perspective is that it adds a layer of complexity to the convenient and frequently-referenced idea that what sounds best is typically what is also best for the body, and vice versa. Indeed, participants regularly referenced this mutually-beneficial idea as support for how injury prevention is inherently part of an instructor’s role. These seemingly conflicting perspectives challenged me to consider the implications of these different perspectives on the role of health promotion in music education, which will be elaborated upon below.

### 4.6.3 Contrasting views

While all participants were supportive of injury prevention or health promotion education being incorporated into studio lessons in some form, opinions on the relationship between this education and the music varied. The one perspective, which appeared to be supported by Participant W and also at times voiced by Participant X could be expressed as health promotion serving the music or sound. In this view, health promotion consists of another tool in the ‘how’ category whose purpose is limited to offering greater success at conveying the ‘what.’ Participant
X spoke eloquently of this idea in response to the researcher’s proposed health promotion topics, reflecting

\[\textit{I have no quarrel with any of this; that’s all great stuff... Is there a way to make music and the aural world the thing that links it, and on a fairly, constantly there, way? That it’s always through the ears and through the mind... So everything you do is being matched up, is being powered by something that you hear... It’s just so important that it start with something that you just sit quietly and hear. Everything. Every physical thing. It’s like a religion: without the god, what’s the rest of it? Well it’s just rituals and exercises... I think that, we want to know how it feels, you say, you know, in a lesson you talk about how that feels, being aware of your body, how’s it going to feel. But before that ever happens, how does it sound? That’s all.}\]

The contrasting view, in which health promotion could be seen as having value beyond simply its immediate benefit to musical performance, was expressed by Participant Y and Z. These participants seemed to in many ways approach the topic of health promotion in music very similarly to Participant W and X, but with the addition of encouraging non-musical activities that may indirectly yield positive musical effects. In this view, the focus could be seen as shifting from health promotion serving the music or the sound, to health promotion serving the musician or the person. Participant Y, for instance, periodically mentioned mindfulness, meditation, sleep, and nutrition as elements that, if given greater consideration, would significantly benefit music students, while both she and Participant Z commented on the importance of physical activity. Physical activity was indeed a major emphasis for Participant Z who regularly reiterated its value in supporting a violinist’s capacity to sustainably play their instrument and proposed that health promotion for musicians include a heavy emphasis on increasing physical activity. All these additional considerations appeared to be separate from the music, or minimally at arm’s-length, not requiring significant musical justification for their value beyond simply generating a more physically and mentally capable and resilient individual. Participant Z spoke to the distinction between these musically integrated and separate activities in the following comment:

\[\textit{You can’t separate the way you move the arm from 1) what’s healthy for your body, and [2] what produces a good sound. At the end of the day, it has to be the same thing. Otherwise you’ll get into the practice room and be like, ‘well I want to go for this sound,’ and it might}\]
not be something that’s healthy… You have to kind of overlay the sound idea on the physical feeling, so it has to be, kind of the same thing. Now, again, physical activity – just basic healthy, physical activity – maybe that’s a little bit separate. You know, go swimming for half an hour. Fine. That’s a good thing. But then when you’re practising how the body actually moves for playing the violin, I think it has to be connected to sound production, to what you’re listening for, to what you’re trying to make from the instrument, so it’s all one thing.

As has been by now alluded to, the differences in perspective on the relationship between health promotion and music were evident in participants’ responses to the proposed health promotion topics. Participant W’s desire for the ideas to be presented holistically, and Participant X’s preference for music or the aural world to be the connecting link for all the topics, have already been presented. In contrast, Participant Y was most emphatic about the importance of the ideas being introduced in a practical, applicable, hands-on capacity, ensuring that students “could actually start to feel or do an exercise physically, whether it be with the instrument or not, that just brought attention to what this person was trying to identify in your body. That would be useful.” She also spoke to the value of addressing the ideas repeatedly over time to allow students to explore the practices on their own and return with questions or feedback: “not just try it once but follow up and then report back and have comments, and what works for them, what doesn’t work for them; they’ll have questions.”

Participant Z responded to the proposed health promotion topics with an uncharacteristically long and thorough response, taking an additional opportunity to add greater depth to his response. His detailed perspective appears to be a testament to the thought he has given this topic as it relates to his own teaching. For its value, coming from an instructor with experience trying to incorporate an emphasis on wellbeing and injury prevention into his teaching, his response will be presented here with only the researcher’s interjection excluded. Responding to the five proposed topics, Participant Z stated

I don’t think you can really separate it; it all goes together. And I think that’s the way music teaching should be going. You know, it’s just kind of, in a way--. I don’t want this to come across as insulting, but it’s depressing to me that it’s taken this long for somebody to have to do a study to be like ‘well I’m going to try to incorporate all these things’ because it’s what we should all be striving for all the time. But perhaps one of the issues that you have with the
way early child training kind of works is that you practise your piece, and you get your piece, and you perform it and you’re like ‘woohoo! I achieved something,’ right? It’s a real goal-oriented system, and if you play your piece well, the people are happy. If you don’t play your piece well, it’s like ‘[clicks tongue] I didn’t play my piece well.’ Not happy. And that doesn’t lead towards considering the whole process of how you get there all that much, like you say, practice techniques. Mindfulness, right? Like how to feel great about getting up on stage or anything, and these all go together, ‘cause you don’t feel great up on stage, you probably won’t play the best that you can. You probably won’t feel comfortable and so then all the technical stuff that you worked on will not be there. If you’re tense, you’ll probably do things that are not good for you physically, right? So you can’t really separate any of it and it totally makes sense that you would have a violin lesson that incorporates some Alexander Technique. And then work on a practising technique, and then work on a psychological technique to be able to play it correctly the one time you need to be able to do it, because that’s what you have to do. It’s real time, what we do. You don’t get a second chance in anything, it’s in real time and it has to be good once. Finding out how all these things fit together. It’s great... I think we are all going in this direction, but it’s important that we have teachers that are kind of aware of all of the other stuff, you know, not just Kreutzer 2 [a well-known violin study frequently assigned to students], but how it all fits together. How it all fits together in a healthy life of a happy performer. So that people don’t quit because they’re tense and they’re in physical pain. Or they don’t quit because they’re upset performing and it doesn’t go well and they beat themselves up over it. Or they quit ‘cause they can’t achieve what they want. Or they quit ‘cause they’re bored and they don’t have an idea they want in their heads. You have to be able to go with all these things differently with every student. Some students have no problems in one area and all kinds of problems in the other. And that means that one mold doesn’t fit for everybody. So everything that we come up with and that you come up with needs to remain flexible. So there has to be like ‘oh 50% on mindfulness for this dude, and oh zero % ‘cause that guy’s fine. No problems,’ but the arm’s like this, right? [gestures unnatural position]. So there always has to be a balance, and that balance will be different for every student, and I don’t really see that changing in teaching methods in the future; I don’t see it becoming a one-size-fits-all thing ever.
This lengthy quote exemplifies a number of the key themes of this phase of the research, and foreshadows ideas that emerged in greater detail in the subsequent phases. The beginning of Participant Z’s comment addresses his perceived need for proactive and holistic health promotion education in music training (Theme 4), while hinting at the challenges of a repertoire-based system, which was a topic that arose frequently in the subsequent phases of research, and as such, will be explored in more detail in subsequent chapters. He also alludes to the role of the instructor (Theme 1) and systemic barriers to health promotion in music (Theme 3) in his comment “but it’s important that we have teachers that are kind of aware of all of the other stuff.” Participant Z ended his comment by emphasizing the importance of the instructor responding to the unique needs of each individual student (Theme 2).

This quote appears to be fairly characteristic of Participant Z’s perspective. Throughout the various interactions that comprised this phase of the research, Participant Z argued for health promotion to go beyond simply serving sound, to empowering the student to engage with music from a state of happiness and wellbeing (a variation of Theme 5). As a logical continuation of this perspective, Participant Z also raised important questions regarding the training objectives of the University and post-secondary music training institutions in general, which will be explored in more detail in Chapter 7.

In this phase of the research, two different perspectives emerged on the role of health promotion in music education. These perspectives can be summarized by their primary aim: to serve the music, or to serve the individual. While these summaries inevitably represent broad simplifications of a tremendously complex topic, they nonetheless identify a potential challenge to incorporating health promotion into music education, namely clarifying the purpose of such education in a system with deeply established traditions, values, and expectations.

4.7 Conclusion: Exploring the role of health promotion in studio lessons and implications for the Health Promotion Concepts

The various interactions with the different instructors through this phase of the research granted an opportunity to explore instructors’ values as they relate to incorporating health promotion into studio lessons, from which five themes emerged:

1. Instructors fill an influential and multifaceted role;
2. Every student is different and the instructor tailors their teaching to the individual’s needs;
3. There are systemic barriers to promoting health within the existing system;
4. Health promotion education in music ideally needs to be proactive and holistic;
5. The purpose of health promotion in music: At the heart of all of this must lie the music.

All participants alluded to the influential role of the studio instructor, from enculturating students to developing students’ independence and thereby preparing them for a future in music. Similarly, participants all emphasized the necessity of tailoring their instruction to each student and responding to where the student is with their learning, both to encourage students to develop their unique musical voices, and to find their own solutions to problems. While all the participants mentioned systemic barriers to promoting health within the existing system, the specific barriers mentioned ranged from educational practices, to cultural factors, time constraints, and financial challenges. A greater variety of perspectives emerged in response to ideas that health promotion education must be proactive and holistic, and this variation took on a more distinct division between two contrasting perspectives in the final theme of exploring the purpose of health promotion in music education.

From the five themes that emerged, some of the most influential ideas for me in moving forward with developing the topics into the Health Promotion Concepts were the emphasis instructors placed on tailoring their instruction to meet the needs of each student and to best support their developing independence; recognizing the need for proactive and holistic health promotion education; and acknowledging the importance of keeping the music present through all health promotion activities or discussions. This final idea presented a challenge for me as I struggled to reconcile the two somewhat conflicting, yet both seemingly valid perspectives on the role of health promotion in music education. While this idea will be discussed in more detail in Chapter 7, for the purposes of the practical exploration lessons of phase three, I endeavoured to maintain a heavy emphasis on the musical goals of the student participants throughout the lessons.
Chapter 5
Phase Two (Health Practitioners) Findings

The purpose of this phase of the research was to explore musicians’ health from the perspective of health practitioners who treat injured musicians, with three research sub-questions guiding this phase of the research:

1. What knowledge do health practitioners feel is important for violinists to have?
2. What are health practitioners’ views on current violin pedagogy as it relates to health promotion?
3. What are health practitioners’ views on elements of the proposed Health Promotion Concepts?

Five health practitioners who regularly work with injured musicians took part in this phase of the research, and shared their perspectives through one-on-one interviews with me. Participants included a chiropractor, massage therapist, osteopath, physician, and physiotherapist. Based on the diversity of perspectives expressed, data was analysed and is being presented here first individually, then collectively. It is hoped that the individual analyses presented below will grant the reader a more nuanced understanding of participants’ views.
5.1 Individual analyses

5.1.1 Osteopath: A human baseline underlies individual artistic expression

Figure 3. Osteopath: A human baseline underlies individual artistic expression

The osteopath who was interviewed worked regularly with top-performing athletes and musicians, and his comments often illustrated his familiarity with the athletic world. At the heart of the osteopath’s perspective was recognizing that a human baseline underlies individual artistic expression. Early in the interview, the osteopath outlined a three-part framework, in which he saw the musician fundamentally as a human with basic human needs. Meeting these needs was seen as foundational to being able to be first, a musician, and beyond that, a violinist expressing one’s artistic impression:

If you’re a bad human, you’re a bad human, and so the human part is the baseline. And on top of that, we can put ‘musician.’ And the musician can be--, you can be a pianist, you can be a violinist, you can be anything. And then on top of that, we’d put your craft – if you are a violinist, if you are the pianist.

This three-part framework, which the osteopath regularly referenced throughout the interview, was used as a basis for interpreting the osteopath’s perspective in both schematic and text form. It should be noted that the focus is not on representing as accurately as possible the framework the osteopath briefly described, but rather I have endeavoured to use the entire discussion to devise a broader interpretation of this framework that represents the themes that emerged. To this
end, while the osteopath referred to the second level as the musician and the top level as the violinist, explaining “there are things that go into being a musician – social, emotional, the way that you move, the way that you think – that prepare you to be a violinist,” in this interpretation, the second level is being labelled as “musical skill” and the top level as “individual artistic expression” to better represent the topics that emerged in the interview.

5.1.1.1 Human baseline

Much of the osteopath’s approach to working with musicians was based on his perspective that when fundamental human needs are not properly addressed, achieving peak musical expression is challenging: “first if you’re a bad human, where you eat poorly, drink poorly, live poorly, do all the stuff poorly, move poorly, think poorly, it’s going to be sometimes really difficult to put those other two things [musician and violinist] on top.” The osteopath thus saw his role as helping ensure that the basic human needs were being met such that the musician could fully express their art: “What I try and do is make sure that the person, on a human level, is sound. Because anything on top of that – if I have a bad shoulder, I can’t do this [demonstrates arm position needed for violin].”

The osteopath mentioned many elements that contribute to establishing a sound human baseline, with some of the most frequently mentioned elements being diet, water intake, breathing, sleep, and movement. He acknowledged that while these elements may be intuitive, or at the very least, “not rocket science,” his patients were nonetheless often surprised by the emphasis the osteopath placed on these elements in addressing their concerns. Indeed, the osteopath alluded to discovering through his work with his patients that properly addressing these basic human elements frequently resolved a significant number and wide variety of his patients’ complaints:

_Usually when you’re starting, again, on this human level – what do you eat? How do you move? What are you doing? – there’s a lot of things that start to just fall off and they start to figure out that their shoulder problem isn’t quite as bad and they actually do have range in their neck. It was just that they were dehydrated and they have really poor nutrient levels and that has poor tissue resilience and poor flexibility, and they’re not sleeping well and all this stuff, they get headaches all the time... I mean all these things are significant. And those are the things that often are the underlying cause of things, I’m finding. Treating those things is important._
The osteopath’s approach to addressing this human baseline also involved recognizing people’s need for diverse experiences, leading him to encourage patients to engage in activities, particularly movement activities, unrelated to their musical pursuits, acknowledging the benefits that such activities can provide: “So that’s a recommendation that I make where don’t spend all your time playing violin or playing piano; do other things. Because that neurological expansion and functional expansion are actually going to help you.”

It is indicative of how important the osteopath viewed this broad human baseline, that he stated it as the primary recommendation he would encourage music instructors to dispense:

> If there was any recommendation I would make to a teacher to a student, it’s to let your student be a human being, and don’t forget what makes them a human being: they have to move, they have to breathe, they have to eat, they have to sleep. If I want an athlete to be the top 1%, they have to do those things well for the athletic expression, and that’s the way that I coach any musician who comes in.

A final aspect of the human baseline that emerged later in the interview was the concept of stress and its mismanagement in musicians. The topic came up through acknowledging that musicians’ practice sessions are typically intense and stress-generating, for the mere fact that a musician is attempting to draw something out of an inanimate object, which can be exceptionally frustrating. The osteopath’s approach to addressing stress encompassed the other human baseline elements that he had addressed, enforcing the idea that establishing and maintaining a solid human baseline comprises a way of life:

> If you want to deal with, in my opinion, making your musician better and preparing a musician to understand what physical things may befall them, teach them about stress. Teach them what true stress is. The physiological aspects of stress... there are true aspects of stress that actually break down the body and actually have detrimental effects. Those things. You make a better human when you treat those things. And that is a concept, so it’s all encompassing. There’s no one exercise, it’s everything you do: it’s the breathing, it’s the walk around the block, it’s the stretching afterwards, it’s having a cool-down, it’s taking a day off, it’s drinking, it’s eating good food. All of those things are just in place so we can fight stress. That’s it. That’s the bottom line. If you can do that, you win!
Addressing the musician’s human baseline was thus not only one of the osteopath’s primary roles in helping his patients, but represented a way by which the osteopath felt that music instructors could better help their students’ musical development.

5.1.1.2 Musical skill, individual artistic expression

Musical skill and individual artistic expression were often deeply connected, usually in the form of building one idea upon the other, and thus frequently appeared simultaneously in the osteopath’s comments. As a result, they are being explored together in this discussion. In this interpretation, musical skill, as the second level, refers to those elements general to all violinists, for instance, the asymmetrical physical demands associated with playing the instrument, as well as to elements general to all musicians, such as skill acquisition through practising. The osteopath frequently commented on practice, emphasizing the importance of refined and effective practice, rather than simply accruing hours of practice, as a means of developing the requisite musical skills:

*It’s not 10,000 hours of practice, that’s useless. You’ve driven a car for probably more than 10,000 hours, or walked more than 10,000 hours, but you can’t run a marathon, and you won’t beat a Formula One racer because they do those things better, because they practise a finer degree, so it’s about perfect practice, not about just logging hours. That is probably the biggest thing that people don’t understand.*

Interestingly, these skills, while functionally part of the second level (musical skill) also contribute to the development of the individual artistic expression. This is because even the musical skills themselves, or building blocks of violin technique, are developed in an individual manner, dependent on the musician’s artistic views and experiences, and are heavily shaped by their instructors (or in sport, their coaches): “you’re going to gravitate towards certain aspects of the skill based on your experience with the coach, based on things you see, based on your expression, based on what that artistic impression is going to be.” As a result, the injuries or complaints that the osteopath’s violinist patients presented with often displayed a combination of the elements common to all violinists (musical skill), and those elements unique to that violinist’s individual artistic expression. Speaking of the commonalities between violinists’ injuries, the osteopath stated “they may complain of different things, but there’s a typical presentation that the violinist, much like a tennis player, would have, because it’s a one-sided
activity.” The tremendous variation between patients’ complaints, in contrast, is a result of each individual’s unique approach to the instrument:

Within that [the typical, asymmetrical presentation], there are probably things that are more related to their expression of the instrument and the way that they play and things like that. So how they sit or don’t sit, or how they move or don’t move, or the way that they move within holding that. So those things are more prevalent.

Hence, while there is a common challenge of repetitive strain due to the nature of playing the violin and the extensive hours typically involved in the task, the structures that will be most affected differ between individuals depending on their individual artistic expression. As a result, the osteopath viewed his role as helping his patients understand what they are doing that is creating problems, such that they can create space for the body to recover:

It’s not rocket science, but it is science. That you know full well that there’s going to be a toll of doing the same thing over and over again. But within that, it’s part of the expression of your instrument and so you can’t take it away, but you’ve gotta just at least understand how it’s breaking down, and so that’s essentially the conversation that I have. ‘You’re like this because you’ve chosen to be like this. My job is to make sure that you can do more bad stuff to your body and that you can recover.’ ... So it’s not just treating the injury but it’s creating a window where their body can essentially do more harm, and then recover from that.

This quote references all three themes, by alluding first to musical skill (“doing the same thing over and over again”), followed by individual artistic expression (“it’s part of the expression of your instrument”), and finally by referencing the necessity of a solid human baseline to support these activities (“make sure you can do more bad stuff to your body and that you can recover”). The theme of the human baseline will now be revisited to explore in more detail its role in supporting peak musical performance, with reference to specific practices and recommendations.

5.1.1.3 A human baseline underlies individual artistic expression

Bringing this analysis back to where it began, the osteopath’s views on addressing injury, or helping create a window for recovery, involved balancing the specific challenges unique to each musician’s individual artistic expression with addressing those elements common to musicians as a group (musical skill) and supporting a strong human baseline to underlie it all. Attending
particularly to the common elements among musicians (musical skill), the osteopath spoke of general health promoting practices that he felt were important to maintaining a solid human baseline and would simultaneously promote effective musical skill development. An example of this mutually-beneficial pairing was the idea of situating the musical practice between a warm-up and cool-down. The osteopath emphasized the benefits to the body and brain of engaging in warm-ups and cool-downs, acknowledging the physiological requirements of the brain and muscles. He also emphasized how better addressing these physiological requirements through appropriate warm-ups and cool-downs in turn leads to more effective and efficient practising. One of the main advantages the osteopath presented of positioning the musical practice between warm-ups/cool-downs was that it enables the musician to more effectively accomplish their musical goals, and thus to do so in a way that is less mentally and physically taxing:

Because when they [musicians/patients] go around and run around the block, they feel absolutely vitalized and invigorated and they go out and blast out, you know, an hour on the piano and then they stop. They put it away. And then they cool down, so they’re just going to go for a walk, or-- it’s marrying this idea of what their body is actually trying to do… It’s that level of attentiveness that they need, and being able to relax, but be able to play in some tension.

While there were aspects within a warm-up and cool-down that the osteopath saw as fairly universal, he also saw these placeholders as opportunities for individually-tailored practices, recognizing that the demands each musician places on their body are different. The osteopath exemplified this point by referring to a string player patient of his who clenched his teeth as part of his individual artistic expression, and as a result, the osteopath had recommended specific warm-ups and cool-downs to counteract this physical demand on the body and ensure the musician was able to return to a solid human baseline:

I have one musician whose issue is he grits his teeth when he plays. Okay, well we can give him a bite guard and we can say ‘stop that! Don’t do that!’ but it’s actually a part of the way that he plays, so there’s an expression that’s there when he’s actually ‘eee’ [demonstrates gritted teeth] doing that, so we want to try and-- I don’t want to eliminate that. I want him to just understand where it’s coming from and then we have to treat the aftermath, so we actually prepare him to do work, doing like, almost vocal exercises. And he’s not a vocalist,
he’s a stringed instrument player. So the whole idea of preparing him to do work is understanding what things he does as an artist that lead to his pitfall. If he can stop gritting his teeth, then hey, great! ‘You stopped gritting your teeth.’ But when you’re in the thick of it, and you’re actually ‘ugh’ doing this thing, it might not be possible. So we treat the aftermath. So his cool-down is making sure his body is not just doing this for days and weeks on end, because then that turns into a TMJ issue, it turns into headaches, it turns into stress, it turns into a whole bunch of things.

For the osteopath, addressing injuries, both proactively as well as retroactively, thus involved supporting a solid human baseline while also acknowledging the elements of musical skill development and execution, as well as the individual artistic expression, that challenge the musician’s body and mind. Importantly, the osteopath was emphatic about not attempting to alter his patients’ individual artistic expression, but rather he sought ways of bringing them back to a healthy baseline so that they could continue to express their art:

> Whether it’s holding an arm up, or playing tennis, or playing an instrument, it’s not natural. Our bodies are designed to walk around, maybe lift some heavy objects, look at birds, eat, drink. We’re not designed to fly, we’re not designed to swim, we’re not designed to run ultra-marathons. So there’s a little bit of poison that kind of enters the mix, and therapeutically what we try and do is bring them back to a little bit of a baseline kind of window. If we’re successful, they go through life and don’t have a problem.

As is evident in the previous quote, the osteopath operated largely from a perspective of recognizing that musical performance, like many human endeavours, inherently brings with it certain psychological and physical challenges. He presented an argument for supporting health and wellbeing not through avoiding all activities that present challenges, but rather by engaging in practices that encourage effective use of the body and mind, and by maintaining a strong and resilient human baseline that can recover from such challenges. The osteopath emphasized that music instructors could most assist in developing healthy musicians by encouraging and helping students to establish a healthy human baseline, capable of supporting their musical skill and individual artistic expression.
5.1.2 Massage therapist: Effective music-making

The massage therapist practised in a clinic that worked almost exclusively with musicians, many of whom were undergraduate students. She approached our discussion topics from a very practical perspective, creating an overlying theme of effective music-making. This idea of making music in an effective manner was built on three inter-related themes: at the peak was the idea of optimizing efficiency, both physically and mentally, which was based on strong general health habits and a solid understanding and awareness. The massage therapist additionally provided an interesting perspective for considering these last two themes (general health habits and understanding and awareness) by proposing that violinists try to think of their bodies like they do their instruments.

5.1.2.1 General health habits

Like other health practitioners interviewed, the massage therapist viewed general health habits as a key component of musicians’ health. Topics that she raised as part of general health habits included strength, core posture, eating habits, exercise or other physical activities, and psychological and emotional wellbeing. While she appeared to place great value on these habits generally for supporting an individual’s basic wellbeing, in our discussion, the massage therapist additionally almost always related these topics directly back to a musician’s music-making. She acknowledged, for instance, that insufficient strength or poor core posture renders it challenging for a violinist to effectively support their instrument with minimal physical effort. Furthermore,
the massage therapist felt that a musician’s physical fitness often directly affected their sound, and consequently it was important for musicians to understand

...that even cardiovascularly, the stronger you are cardiovascularly, the better your playing is going to be as well. Your endurance is better, you’re breathing with your music, your sound production is better. The people who I treat that when I listen to them, that have the weakest cardiovascular system, I hear it in their playing. They don’t have the energy in their music, they just don’t have it, or they have it for just a short period of time and it’s gone, like they just can’t sustain it.

Far from simply blaming students for having poor general health habits, the massage therapist acknowledged the significant struggle that music students face when trying to adopt positive habits, operating, as they do, within a system that is not well designed to enable, let alone encourage, such choices:

I think as a student, it is one of the hardest times of your life to actually care for your body, which I think is a whole system problem, which I think is—, that makes me a little upset sometimes ‘cause it’s almost impossible, especially, I feel especially with string players, the amount of—, – between chamber music, orchestra, studio time, and then playing for other things, other opportunities, and then you still have to do your theory and your history and all of that stuff on top of that – there’s not really opportunity to take good care of yourself. But, that, at that time of your life, is so critical because it almost dictates how you’re going to take care of yourself for the rest of the time. Because now you’re in a habit of doing it. You’re in a habit of eating crap, you’re in a habit of never going out and exercising, your cardiovascular sucks because you don’t do anything anymore. You might have in high school, but you don’t do it anymore... it’s shocking what happens at that time when it’s actually the most critical for us to be establishing good habits to physically take care of yourself.

The enthusiasm with which the massage therapist spoke about the importance of strong general health habits was indicative of the value she placed on this topic. This quote also exemplifies the massage therapist’s significant awareness of ways in which music students are systematically disempowered from making healthy choices by competing institutional demands.
5.1.2.2 Understanding and awareness

The theme of understanding and awareness encompasses the musician’s understanding and awareness of their body as the means by which they make music. The massage therapist was emphatic about the importance of musicians understanding the structures involved in performing musical tasks, recognizing that this understanding can powerfully affect the musician’s interpretation of their physical experience, as well as their behaviour:

...I’m so passionate about making all of my people understand when I’m talking about certain things, that they understand what that looks like... it’s so important because it completely changes, first of all what they even think that they’re feeling – it does – and then how they’re going to go about changing it.

Due to these practical implications associated with understanding basic anatomical concepts, learning about anatomy can be empowering and exciting for musicians, which the massage therapist expressed, saying

*Body mapping, if you have a good picture of what that muscle actually looks like, and what its function is, it’s such an ‘aha!’ moment for so many of those people. It’s like ‘oh, I had no idea that it goes all the way that far! Or that it does that! Like it does that?’ ‘Oh yes, it does. This is what it does. This is its function. And see how big this is?’ or ‘see how small that is? and you’re making it do this much work and it’s this little! [holds index and thumb close together]’ right?*

The massage therapist also remarked on how learning relevant anatomy can help musicians gain a better understanding of what it is they are doing, how these actions may create physical challenges and even discomfort, and how they may be able to minimize these physical challenges. The massage therapist used the example of understanding what a neutral posture is. By understanding what a neutral posture looks or feels like, a musician is able to first of all recognize when they may be deviating from a neutral posture. This awareness then allows them to make educated decisions about how much time they choose to spend in positions that deviate subtly or dramatically from neutral, and whether or not they practise non-playing movements that in some way counter these non-neutral positions. None of these decisions can be deliberately
made or consciously explored if the musician does not first have an understanding of what a neutral posture is:

*I feel like if there was a better understanding of good neutral posture, then you can work from that and understand what you can manage for certain lengths of time. Yup, as musicians, as humans, we go outside of our neutral posture constantly, but we have to know where neutral is to come back to it, and that I think would be very helpful.*

In addition to knowing about the structures involved in making music and how they function, or the theoretical concept of neutral posture, the massage therapist was emphatic about the importance of musicians developing body awareness or an ability to feel what they are doing. Recognizing that definitions and connotations of the term “body awareness” can vary between individuals, the massage therapist defined it as the ability to “*actually physically, tangibly feel*” areas of the body while playing. She recognized that strong body awareness of this kind is not necessarily part of a musician’s playing experience, saying “*we’re not always aware of our own person in what we’re doing, especially as musicians, ‘cause we’re into the music. We’re not thinking about what our body is doing, necessarily, and some musicians are and some are not connected.*” Improved body awareness not only brings the theoretical understanding of anatomy into practical application, but provides the additional critical benefit of potentially encouraging the musician to make intelligent choices about taking breaks or practising movements that counter those involved in playing their instrument, and thereby potentially limiting injury-promoting behaviours, by being able to feel “*the impact of what you [they] just did.*”

Ultimately, the concepts of understanding and awareness are intimately connected, and as previously alluded to, the massage therapist felt that an increased understanding can positively affect awareness. Similarly, increasing awareness may stimulate the musician’s curiosity to expand their understanding, allowing the two concepts to mutually benefit each other. The massage therapist spoke of how the instructor can nurture this mutually beneficial relationship in students, saying

*As a teacher, you can only give and guide so much. But if you can guide in a way that is making that person keen to understand their own body in relation to what they’re doing, that’s a win-win... you have a relationship then, where they’re learning to feel that this isn’t feeling right, and then being able to articulate what are they feeling that’s not right. And*
again, the more you know of the anatomy, the easier it is to describe... If you have no understanding of what that looks like, you can’t fix it... The more you understand about it, the easier it is to fix it.

5.1.2.3 Think of the body like the instrument

In order to shift musicians’ health practices while staying within the existing value system, the massage therapist encouraged musicians to think of the body like the instrument. In this proposed approach, the violinist would strive to apply similar effort to caring for their body as they do to caring for their instrument (general health habits). Likewise, just as the violinist may understand the various parts of the instrument and how they work together to create sound, noting when parts are not working in an ideal manner (for instance the strings need changing or the bow needs rosin), so too would the violinist understand the parts of the body involved in playing and be attuned to changes in function and feeling (understanding and awareness). The massage therapist explained the concept thus:

As a violinist, you understand what your instrument looks like. You understand how it’s built. You understand how to tune it. You understand what the strings are made of, what the bow is, what so many components of that instrument are, but have no concept of the instrument that it takes to play that instrument. To me, if you saw it as two instruments that actually interact and have to actually play together, be on the same team... you should have an equal understanding of both of those things.

Similarly, the massage therapist suggested that by understanding these two instruments (the musical instrument and the body) more equally, musicians might be more inclined to better care for themselves:

We should all have an anatomy colouring book, that you understand all the muscles that you’re using and what they do. That would change everybody’s picture of themselves and how well you take care of it... you’ve got this beautiful violin and you take such good care of this expensive piece of furniture [uses funny voice]: you’re going to have a good case for it, you’re going to make sure your bows get rehaired, you’re going to make sure you’ve got good rosin, you’re going to make sure everything is very well taken care of... But tell me how many people you know that take as good care of their body as they do their instrument!
The massage therapist’s proposed strategy of encouraging musicians to think of the body like their instrument was designed to operate within musicians’ existing values, allowing new ideas, specifically increasing understanding and awareness while promoting the adoption of beneficial general health habits, to take advantage of existing habits and value systems.

5.1.2.4 Optimizing efficiency

The final theme is in some ways the culmination of the previous themes. By building upon the foundation of strong general health habits and a good understanding and awareness, musicians can work at optimizing efficiency, which involves both the physical and mental domains. With respect to physical efficiency, the massage therapist regularly referenced the importance of using the body efficiently, whether by making greater use of larger muscle groups, or creating better stability in order to facilitate the mobility required for playing the instrument. The massage therapist’s perspective on this topic is evident in the following quote in which she explores the studio instructor’s role, from a basis of a strong anatomical understanding:

*I think if a teacher has a good understanding of anatomical posture to begin with, of what good, neutral posture looks like, it would be much easier to then look at a student and understand, ‘oh, when they’re lifting their violin, their whole low back is arching backwards,’ and you might then as a teacher go ‘hmm is that necessary? Is it necessary to actually make the body do that? Is there a way we can do that and keep the body as neutrally advantageous as possible where actually all your muscles then have the greatest advantage?’*

The massage therapist proposed that in this way, both the student and instructor could be regularly engaged in actively seeking ways to use the body most efficiently to perform each required musical task.

Efficient use of the body was presented as also being closely connected to efficient use of the mind. The massage therapist, for instance, frequently referenced the importance of preparing the body and mind for the task of playing through a warm-up, in order to make best use of the musician’s time, as well as their physical and mental resources:

*Really, for me, the importance of a warm-up is to energize your body, to break a pattern of where you were, whatever you were doing previous to that, and it’s getting your brain into a*
completely different space, getting blood pumping through your body so that your muscles are actually ready to do a job.

Rather than emphasizing purely the physical aspect of warming up, the massage therapist stressed the importance of increasing blood flow not only to the muscles, but also to the brain. Her emphasis was then on using the brain efficiently by mentally engaging with the task before becoming physically involved in playing:

You just need to get your body, first of all pumping...blood so that you can actually think so that your practice time is actually going to be efficient... the most important thing is to just do something that’s going to get your body energized. Then sit down and start planning what your practice is. Planning your practice is even more important than warming up with your instrument. You can mentally warm up your instrument...and still do a good job of it.

This idea of physically warming up also tied into the massage therapist’s views on general health habits, as she frequently emphasized the importance of being active, not only in a warm-up or even for the benefit of the musician’s playing, but also for daily life:

That’s half of the battle if you can make sure that you move your body. First of all, it allows oxygen to pump through our bodies, but it just gives us more mental clarity, we practise better, we listen better, so much of what we do is just better.

The massage therapist also illustrated the connection between physical and mental efficiencies by emphasizing the importance of assessing when physical exertions can be avoided entirely by engaging intellectually with the task, for instance through mental practice. This idea of mental practice was an important concept for the massage therapist who identified it as one of the most important ways of avoiding overuse injuries and increasing efficiency and effectiveness in practising:

I’d say the most critical thing for saving your body and to being efficient, is mental practice. Like I can’t, I can’t, I can’t tell you how important that is enough. Out of all the things I learned, one was understanding what my muscles looked like, what they did, the other was learning to better manage my time, and that is mental practice... and that doesn’t get taught enough. That is for certain. That efficiency of really-- you know even taking the time to
analyze your music... not even pick up your instrument, but figure out mentally how you think you’re going to approach it, and maybe more than one way you could approach that, before you pick up your instrument. The effectiveness of that is so big! It’s so big! And it’s one that does not get used very well.

The massage therapist’s discussion of mental practice also illuminated her emphasis on promoting general health habits that are not only valuable for music-making, but also for life in general. The massage therapist identified, for instance, that the mental preparation required for effective practice sessions is also useful in daily life. She additionally acknowledged how such habits can influence an individual’s psychological and emotional wellbeing:

"It’s true in all parts of life, even how much you accomplish in a day: the people who actually plan out their day get way more done than somebody who just enters the day and just does it. Those people have a purpose, a mission, something to follow, and then even when they get so absorbed into something, they’ve got a plan that’s there, they don’t just go ‘oh man, I don’t know where I-- I, I, I don’t know what to do any more.’ And they just stop. And I see that all the time in students. They just get so caught, they can’t think anymore. Well if you’d planned it out, you’d go, ‘okay, you know what? This is too much for me. I’m going to go on to this, and leave that for another day.’ There’s no harm in that, that’s not-- there’s no shame in going ‘that’s all I can manage on that today.’ But once you get stuck in there, now you’ve got psychological emotional connections that are really negative, and that you can’t let go of... so the planning is really important. But people don’t think that it’s important because it takes time.

The massage therapist’s final comment of the quote (“people don’t think that it’s important because it takes time”) is again indicative of her strong understanding of musicians’ culture and values, in which activities that take time and occur away from the instrument are not valued nearly as much as those activities that involve physically playing the instrument.

5.1.2.5 Effective music-making

Overall, the massage therapist’s perspective revolved around encouraging healthy and productive music, and ultimately life, skills in her clients. She regularly underlined the importance of developing and maintaining functional general health habits, and promoting clients’ increased
understanding and awareness of their bodies. Both of these practices are necessary to optimizing efficiency at either the physical or mental level, helping enable musicians and individuals to better achieve their musical and life goals.

5.1.3 Chiropractor: Adding to the student’s toolbox

The dominant theme that emerged from the interview with the chiropractor was adding to the student’s toolbox, which was supported by five fundamentally interrelated subthemes: “everybody’s a little bit different;” acknowledging the teacher’s influential role; hearing it in the music; “it’s a learning process;” and recognizing challenges of the educational system and cultural values.

![Diagram](image)

Figure 5. Chiropractor: Adding to the student’s toolbox

5.1.3.1 Adding to the student’s toolbox

The chiropractor worked in a clinic that treated a significant number of undergraduate music students, as well as many of their instructors, and other musicians in the community. Due in part to this heavy focus on students, as well as perhaps the chiropractor’s awareness of my research
focus, the chiropractor often used the terms “student” and “patient” interchangeably. Throughout the interview, the chiropractor frequently emphasized the value of teaching or informing his students/patients, to empower them to be better able to address their own unique challenges (adding to the student’s toolbox). This idea of teaching patients was clearly at the heart of the chiropractor’s view of his role, with his instruction taking a variety of forms. One such form was using models and illustrations to help his patients understand the structures and functions he believed were affected by their injuries, “to know why I’m doing something.” On a larger level, he hosted workshops for students with guest lecturers as part of the clinic in which he practised. He evidently highly valued the teaching component, saying “part of the lovely thing about the therapy clinic is that we’re trying to instruct... we’re teaching, every single session that we have.” Through the discussion, it became apparent that this teaching, or adding to the student’s toolbox, was largely a way of empowering the individual.

The component themes that contributed to this overlying theme of adding to the student’s toolbox are highly interconnected, rendering purely individual exploration of each theme somewhat limited and thin. Consequently, while each theme will be at least briefly introduced individually under its appropriate subheading, the subthemes are often developed more thoroughly under other subheadings.

5.1.3.2 “Everybody’s a little bit different”

An important aspect of the chiropractor’s views on his patients was that “everybody’s a little bit different,” and as such, he considered their instruction needs, treatment needs, and approach to their instrument to be distinctive:

\[
\text{We develop in such a unique fashion, everybody’s a little bit different, so each case is going to be a little bit different and how you react to certain treatments is going to be affected as well. So it’s not one size, one condition fits everybody either.}
\]

The chiropractor’s perspective that “everybody’s a little bit different” speaks to the importance of adding to the student’s own toolbox, as it acknowledges that pre-determined approaches to a given problem may not best serve an individual, and thus it is critical to educate and empower the individual such that they can make informed choices that are most appropriate for their unique selves.
5.1.3.3 Acknowledging the teacher’s influential role

While the individual physical abilities and needs of students inevitably affect the way students approach their instruments, the chiropractor also acknowledged other factors that influence students in their physical and conceptual approach to their music-making. Paramount among these additional factors, according to the chiropractor, is the student’s instructor, who plays a prominent role in shaping the student’s approach to their instrument by shaping their decision-making in countless ways. He spoke to this influence, saying

*There’s no position that’s ideal with any instrument, because it’s unilateral, everything’s on one side, so there’s always going to be some give and take on how best to play the instrument, and everybody has a different approach to get the best sound: chinrest, no chinrest; shoulder rest, no shoulder rest. All of those kinds of things are preferential, I believe, but you’re so influenced by the teachers that you have.*

The chiropractor also acknowledged that the instructor’s goals are ultimately deeply aligned with those of the health professional, as both are seeking to help the student achieve their musical aims. These aligned goals, coupled with the instructor’s influential role, present a strong case for the need for collaboration between the instructor and health practitioner. The chiropractor spoke to this crucial, although potentially challenging at times, collaboration saying

*One of the tricky things maybe is working with the teacher so the teacher doesn’t feel like ‘oh that person is trying to change my technique,’ you know? Because that's--–, it’s always a struggle. We’re trying to do the same thing. We’re trying to make that student realize their tone could be this or their intonation could be so much more, but you have to have that cooperation between a teacher and a health care practitioner as well. If they’re on the same page, it works so much better.*

5.1.3.4 Hearing it in the music

Both of the last two quoted passages additionally exemplify the chiropractor’s focus on bringing physical challenges back to their musical underpinnings (hearing it in the music). The chiropractor’s comment that “*everybody has a different approach to get the best sound*” acknowledges the search for a good sound as a primary driving force for musicians, while his comment that “*we’re trying to make that student realize their tone could be this or their*”
intonation could be so much more” confirms that he sees his role largely as helping the student in their musical development. Through comments like the above, the chiropractor subtly acknowledged music as being the primary force behind his work throughout the interview, suggesting he viewed his role largely as helping nurture and enable the student’s musical pursuits.

5.1.3.5 “It’s a learning process”

While the chiropractor frequently alluded to teaching his patients as part of his treatments, he repeatedly stressed the idea that the student’s learning needed to be continual; learning is a process requiring repetition and frequent exposure. These ideas again affirmed the importance of the studio instructor, and cooperation between instructor and health practitioner. The chiropractor addressed this concept directly saying

For me or for any health practitioner to go into a school setting to teach, that is okay, but if they’re getting that daily reinforcement from their teacher, it’s so much more valuable, ‘cause you can spot it [a potential problem] right away. You can spot it right away and you can change it right away and be working on it constantly instead of just one-off.

5.1.3.6 Recognizing challenges of the educational system and cultural values

Emerging largely from the concepts of “everybody’s a little bit different” and “it’s a learning process,” the chiropractor acknowledged that the health practitioner and instructor both operate within a system and culture that present challenges to optimal learning and to health. Specifically, the chiropractor spoke to the challenges of trying to promote a long-term and individualized learning process within a system that is organized according to specific and relatively inflexible objectives and timelines:

It’s always a journey for a person, where they’re at, what they’re ready to learn at that time, and I think the difficult thing in the education system is ‘oh you’ve got to learn this now. This is what we need to mark you on, and this is what you’re going to be graded on this term.’

In this way, the chiropractor linked recognizing learning as a process to recognizing that “everybody’s a little bit different.” The interconnectedness of these ideas came up most directly
as the chiropractor explored ideas of what an ideal learning environment for a four-year music degree might entail, saying

*I think it’s got to be a broad education system where it doesn’t only just start and stop in first year, it’s got to be the whole length of that, those four years of an undergrad degree just to distill all that information. It’s so much information, and it’s a learning process. If I’m not ready to learn it today, maybe I’ll be ready to learn it next month, or the next term, and you have to be patient with where a person’s at.*

Beyond the structure of the educational system, the chiropractor also acknowledged the larger influence of cultural values within the music community. Predominant among these cultural values was musicians’ tendency to value activities that involve playing their instruments above virtually all other activities. Particularly problematic is valuing playing above activities related to general health, which may have less direct or immediate effects on their playing, and even above engaging in mental practice, in which the musician may imagine themselves playing their instrument without physically performing the task. The chiropractor problematized this value system, recognizing that it not only hampers effective learning, but that it also impedes the inclusion of health promotion instruction in music education:

*If you’re there to learn violin, people say ‘well I’m not learning violin. If I’m learning about my body, I’m not learning about violin.’ But, you know, that’s a stigma that I think that we have to get over before a lot of changes will happen, because it’s important, but people don’t see it as an important aspect of that… So these things that you just touched on [warm-ups/cool-downs, body awareness, anatomy education, effective practising techniques, and mindfulness] are valuable things. You have to repetitively do them to make any change. You can’t just have one lecture on it and change a person’s playing.*

This quotation also reemphasizes the chiropractor’s view of learning as a process (“it’s a learning process”). Furthermore, it suggests that music instructors are potential agents for change, not only for their capacity to regularly address topics related to health and wellbeing, but in so doing, potentially shift the culture to one more accepting of health promotion as part of a complete music education (acknowledging the teacher’s influential role).
5.1.3.7 Adding to the student’s toolbox (reprise)

The final quotation included below comes from the end of the interview, and effectively brings in the main theme of adding to the student’s toolbox, while also acknowledging the larger system in which the student is operating (recognizing challenges of the educational system and cultural values), the importance of empowering the student to be able to identify and address their own challenges by acknowledging their individuality (“everybody’s a little bit different”), acknowledging the teacher’s influential role, recognizing that “it’s a learning process”, and that what lies at the foundation of all these efforts is the student’s musical expression (hearing it in the music):

_Incorporating health care into [studio instruction] is only going to add to that toolbox, and make it so that you can just build and build and build, not only in an [undergraduate] university setting, but in a master’s or a doctoral setting, and then playing as a career. So, the more tools you have to work with, the easier it is for you to know what to do in different situations... to know what to do when you get into a situation where you know you’re psychologically not there, but what do you do? You still have to play, you still have to do those things. So how do you get yourself into that state where you can play and you still can enjoy it without injuring yourself or without tensing up and--, people hear that, people hear that in the music, you know? You really have to know your body and yourself what to do, in every case, so it’s a hard one just to instill in one session. It’s a continual thing... A teacher can tell you, ‘this is what I’m hearing, but when you get out on your own, you’re going to change it. You’re going to have different things that you bring to the table too; you look through a different filter, what you bring is totally different, and that’s what makes you unique.’_

This final quote again illustrates the chiropractor’s commitment to empowering musicians, and particularly students, by granting them the information they need to make educated decisions regarding their health and wellbeing as well as their music-making.
5.1.4 Physiotherapist: Better informing instructors empowers them to better prevent injuries

The physiotherapist worked in a clinic devoted to musicians and was actively involved in not only treating playing-related injuries in musicians, but also in educating musicians about playing-related injuries. To a greater extent than any of the other health practitioners interviewed, the interview with the physiotherapist focused on the important role that the music instructor can play in preventing injuries in their students. While various topics came up over the course of the lengthy discussion, almost all topics came back in some way to the overall theme that better informing instructors empowers them to better prevent injuries. Different components that contributed to this perspective were three inter-related themes: instructors need scientific information in order to teach and actively monitor their students within a system that grants them influence and responsibility. An example of a comment the physiotherapist made that speaks directly to this perspective is:

*So what [musicians] need is information, and if you can teach the teachers, then they can do a world of good. Teach the teachers anatomy and physiology, and what happens, and they can stop just about--., all of these injuries that you’ve got should be preventable. It’s not that you’re weak or ill-formed or whatever. Every single one of them should never happen. If you had the information you could look after yourselves, but your teacher has to have it.*
5.1.4.1 Instructors need scientific information

The physiotherapist was particularly emphatic about the importance of musicians receiving scientific information. This emphasis on scientific information permeated her own explorations ("I had to research that; that had me fascinated") and values ("surely [musicians] deserve to have scientific treatment"), and often seemed to be connected to the idea of precision ("you can’t fix a violinist in five, ten minutes... You need at least an hour--; take an hour and a half to figure out exactly what has to be done, what’s done it, what we can do about it, and to teach, so that they know exactly what to do and when to do it"). Similarly, when the physiotherapist discussed common injuries in violinists, she mentioned the exact structures that tended to be affected or contributing to the problem, for instance an over-strengthening of the deltoid, and the importance therefore of accurately addressing the specific problem.

Coming from this scientific and physically-oriented approach to injury and injury prevention, the physiotherapist was emphatic about the importance of musicians understanding basic anatomical information and its relevance to what musicians do: “They’ve got to have a basic understanding of what they’ve got underneath the skin, what’s there, and what they’re using. And they also have to know what happens to it when they do that.” As a result, the physiotherapist viewed a key part of her work as teaching musicians scientific information, largely in the form of anatomy and physiology education, emphasizing “functional anatomy so that it makes sense to them.” She explained her rationale thus:

> What I do with them is teach them anatomy. Because I’ve never met a stupid musician yet. They are a very bright bunch. So if you can teach them anatomy, you can see lights going on, ‘oh so that’s what happened.’ And almost by the time I’ve finished giving--; we give workshops all over the place, and you can see the audience beginning to diagnose each other by the time we’ve finished with them. And they’ve got it right. It’s hilarious [laughter].

In addition to its merit in identifying and understanding injuries, this precise information and anatomical understanding is equally if not more important for injury prevention. By recognizing the demands that playing the violin places on certain structures, teachers can better identify where potential problems may arise. Referring to situations where the music or the nature of the instrument require the violinist to put themselves in a physically compromised position, the physiotherapist said:
This is where your teachers come in. They put them into a really bad position [required by the music or instrument] and the kids love that, and they’ll go home and they’ll practise it furiously, until they’re hurt. But if it’s marked as dangerous music and you mustn’t do it more than so many times a day, then your teacher will prevent an injury. That’s why you teach anatomy, and change it into functional anatomy. And then turn it into how that is interpreted for a violinist. It’s marvelous to do.

This quote also speaks to the value the physiotherapist places on educating musicians in order to empower them to prevent their own injuries (“it’s marvelous to do”).

A final component of the theme instructors need scientific information was the idea that certain concepts have been perpetuated within and beyond the musical community that are unscientific and can contribute to unhealthy practices in musicians. The physiotherapist specifically mentioned “muscle memory” as a problematic concept, and that repetitive strain injuries should not happen. These two ideas were closely connected, as is evident in the physiotherapist’s comment about muscle memory:

There’s no such thing. All your memory’s in your brain …[if] your brain isn’t there, you’re thinking of something else, all you’re doing is beating up these precious things [gestures to hands], and then you get the repetitive strains that need not happen. So yes, you have to repeat and repeat and repeat, to get something to move through your brain and go into that special bit of your memory… but you don’t have to do the whole thing with your hands. You should use the brain more, and you can learn that from exercise physiologists and exercise psychologists who work with Olympic people and should be working with our top musicians; teach you how to use the brain and leave the body alone.

By having a greater scientific understanding of the processes involved in learning and playing the violin, the physiotherapist asserted that instructors can coach their students to make more effective use of their time and body, thereby lowering risks of injury. According to the physiotherapist, developing an increased scientific understanding within the musical field involves learning from research conducted in related fields, and not perpetuating unscientific ideas:
That's my number one beef: muscle memory, which doesn’t exist... The second one is repetitive strain injuries shouldn’t happen... You have to look at the history then of working people, and the research that’s been done into them... And out of that came the rule that after three hours, people had to take a break, and they would do job rotations, do something entirely differently, because you had to have recovery time for the small muscles who can’t work that hard without getting hurt; they’re meant to pick grapes off trees occasionally, you know? And that’s such an easy thing to pass on, that in your total of your day, three to four hours max of heavy practising. Therefore, you have to start to use up here [motions to brain] more.

In this way, the physiotherapist’s emphasis on instructors need scientific information encompassed not only a crucial understanding of basic and functional anatomy, but also learning from research in other fields, whether with athletes or factory workers, to learn how musicians can more effectively perform their tasks without going beyond “tissue tolerance.” The physiotherapist recognized that instructors have great capacity to effect change in their students, but this influence must be undergirded by solid scientific information in order to have the greatest positive effect.

5.1.4.2 To teach and actively monitor

The role of the music instructor is significant, and can encompass a wide variety of responsibilities. In addition to facilitating the student’s musical development, the instructor must also be aware of the student’s physical condition and ideally teach strategies to promote a healthy physical condition, as it relates to making music. The physiotherapist saw the student’s physical wellbeing as an element that instructors ideally can include as part of their teaching domain, encompassing such topics as teaching appropriate stretches to counterbalance the effects of playing the instrument; teaching limits on the amount of time spent with the instrument; monitoring the student’s growth and its implications for the student’s instrument setup; and even monitoring the student’s other activities, for instance, sports, excessive use of hand-dependent technology, or even excessive writing or note-taking for school. Again, these concepts came back to having a scientific basis and learning from practices in other fields. The following quote illustrates the various roles that the physiotherapist identified as being worthwhile for the instructor to take on:
Your main thing I’m looking at [instructors] for is if they’ll stop this muscle memory stuff and speak scientifically and show, tell the kids early. If they’ll teach them the stretches to do, just standard stretches like you would teach a runner, before they’re injured, things that’ll keep them out of trouble, which we can teach them so easily… If they would teach them how much they’re allowed to play per day and no more. And there’s a few other things too.

Looking at what they actually do [for instance, their use of technology or how much they write in class]... the other thing too is because the young ones are growing all the time, an athletic coach would be watching that, and an athletic coach would say, ‘you’ve just grown’ because they would be watching their heights. Every music teacher should have their children’s heights on the wall. And when they’ve grown, you look at them and see if their setup still fits them... [Musicians] can have random injuries like anybody else, that’s true.

And that again is what your teachers have to watch for, what else are you doing, you know? Even you’ve got to watch their sports.

While these topics are wide-ranging, their implications for a student’s ability to safely play their instrument are significant, and hence the physiotherapist felt that these topics needed to be incorporated into the domain of the instructor’s role:

that’s all stuff that teachers have to take over. Look after that body, look after that thing that’s doing the music, that is a--., something that’s alive and has to be taken care of, and there are rules of what it can take and what it can’t take, and you need to learn them.

The end of her comment again alludes to the idea that instructors need scientific information and need to understand the anatomical structures involved in musical tasks and their physical limitations (“there are rules of what it can take and what it can’t take, and you need to learn them”).

Finally, the physiotherapist also acknowledged the advantage that an instructor can have in helping establish healthy habits due to the regular contact between student and instructor. These benefits, however, depend upon the instructor valuing the health-promoting practices enough to engage in them and enforce them regularly during lessons, while also monitoring the other elements previously alluded to:
So you must be really indoctrinated and your teacher must go do this with you every time [referring to stretches], after you’ve played, or anything else that you’re doing. They’ve got so much to watch, they have to watch what else you’re doing. They’re your trainer. You know, a musician works alone; an athlete has a coach and a trainer saying ‘don’t do that, don’t do that, do it this way.’ And musicians just learn music.

As such, the physiotherapist recognized that instructors have a huge responsibility in caring for not only their students’ musical development, but also their physical wellbeing, as it relates to the instrument. The benefit of taking on this potentially daunting, expanded role, however, is a prospective reduction in injuries within the studio, now and in the students’ futures.

5.1.4.3 Within a system that grants them influence and responsibility

Evident within the previous exploration of the instructor’s possible role is a significant amount of responsibility. This elevated level of responsibility is due in part to the tremendous influence inherent in the instructor’s role, within the musical culture. While the physiotherapist was adamant about teaching anatomy and conveying other scientific information to musicians, she was also acutely aware of the culture amongst musicians as it relates to injury, and from whom musicians might be more and less inclined to take advice. She recognized that instructors and other musicians would be more readily listened to than medical practitioners, particularly as it relates to advice on approaching the instrument, and explained her situation saying “I don’t teach in isolation because nobody would listen. Why on earth would they? ‘It’s another medical person telling us what to do.’ So I teach in conjunction with [a musician]. The two of us are always there and she’s my interpreter.”

The physiotherapist was also keenly aware of the influential role instructors can play, especially in setting up good habits in young musicians. Referring to stretches that counteract the effects of playing violin, and thus could help avoid injury, she said:

\[ \text{It should be taught at a very early age while it [injury] doesn’t happen. Because if you can get through into little children’s heads what they have to do, if they’re keen and want to play, then they will continue to do it right through their life no matter who teaches them.} \]

The physiotherapist was also aware that musicians who have been injured frequently incorporate the knowledge they have acquired through their injuries and subsequent treatments into their
own instruction. Fortunately, not all musicians get injured. Unfortunately, that translates into many instructors not having received the scientific information necessary to effectively teach music in a way that safeguards against potential injury, and no evident path for transmitting that crucial information. The physiotherapist explored this challenge, saying

... it all depends on teachers. I know all the ones that I’ve had as patients, all the musicians I’ve had, would be wonderful teachers, because they will remember, and they will really look after the ones coming through their hands, and look out for all the things that they’ve learned. If we can just get everybody doing it, it would be great. So it’s got to go to where? Where are we going to teach teachers?

While the physiotherapist was emphatic about the importance of instructors receiving scientific information, she was also very familiar with the culture of musicians and the existing channels of information transmission. She consequently recognized the challenge of meaningfully conveying valuable information to instructors, who are inherently a broad and disperse population.

### 5.1.4.4 Better informing instructors empowers them to better prevent injuries

Throughout the interview, the conversation consistently returned to the theme that better informing instructors empowers them to better prevent injuries. As such, according to the physiotherapist, a key step to reducing rates of injury in musicians was to find ways of exposing instructors to more scientific information so that they would be better equipped to look after their students’ wellbeing.
5.1.5 Physician: Individual (psychological) factors and environmental factors contribute to injury development

Unlike the other health practitioners interviewed, the physician’s view of musicians’ injuries focused largely on their psychological origins. The physician had a certificate in medical psychotherapy, for which his training had focused on trauma-based therapies. This training was highly influential on the physician’s practice, and he self-identified as having a trauma-based perspective on working with injured musicians. One of the physician’s statements that concisely represents this perspective is his assertion "there’s always a story behind the physical presentation, and you don’t know where you’re going, so that’s where the psychotherapy training is--, you don’t know--, you just ride with it."

5.1.5.1 Individual factors

The physician identified a number of factors that he saw as contributing to injuries, including a wealth of factors related to the individual. His compendium of factors was unique amongst the health practitioners interviewed for its emphasis on psychological, rather than physical qualities. Instead of focusing his diagnosis and treatment on identifying and resolving biomechanical concerns, the physician referred to his approach as
really heavy-duty mind-body, nitty-gritty diagnostic stuff; it’s not just filling out questionnaires, or whether you have major clinical depressive disorder, ‘yes I’m fine.’ That’s clinically obvious. It’s getting to the trauma history. So the tough ones that often do not return to full function, who will often have the dystonias and the treatment-resistant major depressions, and of course addictions, which I have to go through, and of course the recent risk of Fentanyl overdosing... is from those adverse childhood experiences.

His approach therefore combined physical tests with verbally identifying sources of stress and trauma for the musician, whether psychosocial or socioeconomic. He described his process, saying

*We do the [quantitative biomechanical] measurement... and you look at fatigue, and then you do the psychosocial interview; you know, ‘what’s your stress about?’ and then blah, blah, blah, and the stage parents invariably come out, and then the teacher from hell comes out, and then you get the whiplash\(^3\) syndrome coming out – and we have a lot of whiplashers...violin pedagogues – and then the socioeconomic risk factor... The childhood trauma one is the most brutal. There’s a huge amount of sexual abuse in this practice.*

This heavy emphasis on non-physical risk factors was unique among the health practitioners interviewed, and was evident in all discussions throughout the interview about musicians’ injuries and health promotion education.

### 5.1.5.2 Shaping the environment

Beyond the level of the individual, the physician spoke to a number of factors that influence the musician’s experience, specifically research, education, and politics. **Politics** crept into a wide variety of topics throughout the interview, largely in the form of shaping power relations. The physician alluded to multiple ways that politics had shaped his career, including resigning from different positions “for political reasons,” and how changing governmental policies had shifted

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\(^3\) The participant’s use of the term “whiplash” is in reference to a then-recent drama film, *Whiplash* (2014), which centres on the relationship between a jazz student and his abusive music instructor.
the structure of his clinic and the services his clinic was able to offer, ultimately affecting what services musicians could receive.

The physician also mentioned how institutional politics, for instance competition between instructors at a school, or tensions between leaders and members of an orchestra, can have a profound effect on the student or professional musician. Referencing a case that involved sexual abuse between a faculty member and student, in which the student presented with reflex sympathetic dystrophy, the physician stated “it’s amazing the politics of it all, and that’s part of the assessment... and that’s not done in one session, that’s done [by] being in a psychotherapeutic frame, in a therapeutic alliance where there’s trust and boundaries, and stuff comes out.” While not all of the physicians’ comments on politics were as dramatic, most comments acknowledged the presence of existing power discrepancies, and hence the tremendous influence of the individual’s environment.

**Education** was largely viewed as the means by which musicians’ health and wellbeing could be, and was being, improved. The physician was emphatic about the importance of education in improving musicians’ health, and had been heavily involved over the decades in various educational roles working with music students and professional musicians, developing a musicians’ health curriculum, and lobbying for changes in educational requirements. The physician was a strong proponent of the relatively recent adoption of a health requirement within all schools accredited by the National Association of Schools of Music (NASM) in the United States of America. While the physician acknowledged the benefit of various programs in place to educate musicians at different stages in their development and careers, he also recognized challenges to the dissemination of information, particularly the difficulty of reaching small-town, independently-operating music instructors. Based on the number of professional orchestral patients he worked with, he understood that musicians who were active in a professional orchestra would at least have some exposure to injury through their colleagues, and any musician who had themselves had an injury and had been a patient would similarly have gained important knowledge, “but those who have not been part of the scene and other jurisdictions may not be as aware of the risk of injury and early symptoms, so that’s why the NASM initiative has been there.” While the physician frequently referenced the value of health promotion programs or courses within training programs and institutions, he also acknowledged the critical role of the studio instructor. Given the importance of this role, he felt there were certain skills and
knowledge that instructors must possess: “the teacher needs certain skills in terms of body mapping skills, so the mind-body physiology stuff, above boundaries, whatever philosophy of violin pedagogy and technique, and certainly an awareness of the types of injuries and what to do and where to refer.”

Finally, the physician frequently referenced the role of research in positively affecting policies and education. The physician was adamant about the importance of high-quality research that students, instructors, and professionals could rely on, with such research ultimately forming the basis of education.

5.1.5.3 Individual (psychological) factors and environmental factors contribute to injury development

The physician’s perspective on injury was unique among those represented in this dissertation for its heavy emphasis on the importance of psychological factors (e.g. psychosocial, socioeconomic, political, and trauma history). Beyond the individual level, the physician spoke to the influence of politics, education, and research in shaping the individual’s environment. Ultimately, the physician returned to emphasizing the importance of including research-based health promotion in music education as a necessary means for moving forward in addressing musicians’ injuries and wellbeing.
5.2 Group Analysis

Despite the participants’ training in divergent health modalities, combined with their varied experiences with musicians’ health (including some having personal experience with playing-related injuries) and apparently divergent epistemological and axiological beliefs, there were many commonalities of opinion across the participants. Discussions typically centered on a few main concepts, with four themes emerging as the primary cornerstones on which the majority of the conversations rested:

1. Instructors are influentially positioned to positively impact musicians’ health
2. Improvements in musicians’ health require that musicians have exposure to information/knowledge
3. A musician’s ability to make music is dependent on their health, including psychological health, which must be supported by the musician’s way of life
4. There are practices that can support health, which typically increase efficiency/effectiveness, but the existing culture often does not value such practices

As is evident from exploring the individual analyses, the discussions were quite similar between some participants, while other participants addressed topics unique to that interview alone. In general, there was significant overlap of topics between the interviews with the osteopath, massage therapist, chiropractor, and physiotherapist, while the interview with the physician yielded many unique topics. In order to accommodate this diversity of thought while still representing the majority of the participants, themes were selected that appeared to be of importance to at least three of the participants, while also being at least referenced by the remaining two participants. The one exception to this rule is the fourth theme, which did not appear in the interview with the physician, but is being included nonetheless based on its evident importance to the other participants.

5.2.1 Theme 1) Instructors are influentially positioned to positively impact musicians’ health

This first theme was most evident in the discussion with the physiotherapist, which focused primarily on the role of the instructor, yet the idea of the instructor’s influence permeated each of the discussions, taking on various forms through the different conversations. Almost all
participants spoke to the influence that instructors have as a result of their frequent contact with their students, and the ensuing influence it grants on the student’s physical practices and their values. Similarly, participants commented on the opportunity for frequent observation that this regular contact affords, as well as the possibility of monitoring non-musical activities that could affect the student’s music-making. Additionally, some participants commented on the influence that instructors can have across different periods in the student’s life, recognizing the long timeline required for most musical training. As a testament to instructors’ strong influence, participants spoke also to the importance of themselves, as health practitioners, working with instructors when working with injured music students. One final perspective on the role of instructors that was presented involved the potentially negative or even abusive possibilities within such a highly power-laden relationship.

The most commonly expressed perspective surrounding the influential instructor role involved recognizing that due to the regular contact hours and direct coaching on the student’s approach to their instrument, the instructor held significant power to affect the student’s values and practices. This influence over the student’s values and practices in turn shaped the extent to which the student engaged in health-promoting activities. Referring to stretches that counter the effects of playing the instrument, for instance, the physiotherapist said “so you must be really indoctrinated and your teacher must go do this with you every time, after you’ve played, or anything else that you’re doing.” This quote effectively touches on both the elements of value (“you must be really indoctrinated”) as well as the practical element (“must go do this with you every time”).

Participants also commented on the regular contact providing frequent opportunity to observe and influence the student, both for elements inherent in the student’s instrument playing, and for other life factors that could affect playing. The chiropractor, for instance, addressed the former concept noting:

For me or for any health practitioner to go into a school setting to teach, that is okay, but if they’re getting that daily reinforcement from their teacher, it’s so much more valuable, ‘cause you can spot it [a potential problem] right away. You can spot it right away and you can change it right away and be working on it constantly instead of just one-off.

Taking a slightly different perspective, the massage therapist also reflected on the importance of instructors observing their students’ physical bodies when they play, with an awareness of
potentially harmful practices. She commented that it is easy for instructors to ignore practices or techniques that are not biomechanically advantageous in students who are quite musical or otherwise competent, but that an awareness of how their students are using their bodies is crucial to circumventing potential injuries. Additionally, this awareness can prevent instructors from encouraging techniques that are poorly suited to the student’s physical reality. On this topic, the massage therapist said:

_The responsibility, to me, of a studio teacher to observe what the physical--_, yes, _there are people who actually have physical--_, you know... _I’ve had players that have just an anatomically very short fourth finger, and as, say, as a pianist, or a violinist, especially, to get that fourth finger to do what it’s supposed to do--_, but as a teacher you don’t have that problem, but aren’t noticing that that is actually anatomically not possible for them to do. _There needs to be adjustment. But if you’re not aware of it, you then create tension in your students that is highly unnecessary, because you’re not observing what is actually correct anatomically._

Whereas the chiropractor and massage therapist focused primarily on the importance of instructors observing physical qualities of their students’ playing, the physiotherapist additionally emphasized the value of monitoring other life factors that can affect the musicians’ playing:

_They’ve [instructors] got so much to watch, they have to watch what else you’re doing._

_They’re your trainer. You know, a musician works alone; an athlete has a coach and a trainer saying ‘don’t do that, don’t do that, do it this way.’ And musicians just learn music._

On this topic, the physiotherapist additionally remarked “_[musicians] can have random injuries like anybody else, that’s true. And that again is what your teachers have to watch for, what else are you doing, you know? Even you’ve got to watch their sports._”

When commenting on a typical musical education, many participants noted the extended period of time over which musical training occurs, often from a perspective of valuing early interventions by instructors for maladaptive practices, based on the challenge of shifting long-held habits at an older age. The physiotherapist also commented on the lengthy training period for the opportunity it granted instructors to teach different age-appropriate practices at various
points of the student’s life, including as a young child, an academically-involved youth, or a
driving/commuting musician, which she summarized saying “there’s a lot to learn that can be
passed on at different stages of life of your pupils.”

Because instructors have such influence on their students, both the osteopath and chiropractor
emphasized the importance of working with the instructor as part of working with the student.
The osteopath, for instance, commented that he was fortunate to work with top-performing
musicians who no longer study with instructors. As a result, he and the musician could openly
explore aspects of the way the musician performs their instrument, using the musician’s ability to
express their art as the test for whether his recommended modifications were indeed feasible. He
described the process as

I’m just saying, ‘you know what? This is part of the problem, if it’s this or this or this or this,
this is what we need to do. Can you do that, and still be a musician? Can we change your
humanness and still have you express your art?’

He recognized, however, that such a discussion would be more challenging when there was also
an instructor (or coach) involved with a vision that includes the physical logistics of expressing
that art. To this end, he said “if they [the patient] were just a plebe and they didn’t really know
what they were doing, then they would just try it and their coach would say ‘what are you
doing?! This is all wrong, you can’t do it.’” Far from simply countering external advice, the
osteopath saw the instructor’s role as helping to bridge the distance between a healthier approach
to the instrument, which he as a health practitioner could facilitate, and achieving the specific
desired end goal. He explained this relationship saying:

Because I’m not a coach, or a teacher, I can only make so many recommendations or
inferences because they still need to put the ball in the net or put the puck in the goal. So
that’s where, in the world that I work in, working with the coach is vital. So working with the
instructor is also vital, in the music world.

In contrast to the osteopath’s experience working largely with professional musicians, the
chiropractor had significant experience working with student musicians, and similarly expressed
the tremendous benefit of working as a team with the instructor: “you have to have that
cooperation between a teacher and a health care practitioner as well. If they’re on the same page, it works so much better.”

Given the significant power dynamic within the typical music student-instructor relationship, it is not surprising that this influential relationship also has the potential to have negative effects. The physician was the only participant who explored this concept, saying:

*When you close a door with a kid and that professor, there’s a huge amount of trust... so that’s one of the major, major risk factors. So it doesn’t have to be as graphic as Whiplash, it depends on the student and how vulnerable they are. Not everybody comes in as a potential Olympic athlete and the next Jonathan Crow [famous Canadian violinist], right? They just want to learn how to play violin, so they’re extremely vulnerable... not everybody is as nice as your teachers...*

In light of this tremendous influence, instructors were seen as potential agents for positive change within the realm of musicians’ health. Their capacity to affect positive change, however, was viewed as reliant on instructors having and sharing information that is not currently common knowledge amongst them. This lack of exposure to valuable information was seen as a key barrier to improving musicians’ health, broadly stated, with discussions often returning to the second theme:

5.2.2 Theme 2) Improvements in musicians’ health require that musicians have exposure to information/knowledge

This need for exposure to information was addressed from a variety of angles. Participants frequently alluded to information as a means of empowering the individual, and enabling them to make informed decisions. Additionally, types of valuable information were explored, with most participants highlighting the importance of some understanding of functional anatomy, sometimes connecting this anatomical understanding with self-awareness. Teachers were seen as important conduits for such information, and ideas of how to expose more instructors to the information were regularly explored, acknowledging that one of the primary ways by which instructors acquire such knowledge is through personal injury and their ensuing interactions with health practitioners. This second theme could be represented by the common maxim “knowledge is power,” with subthemes exploring what constitutes relevant knowledge and how it can be
transmitted to those who could yield not only personal benefit, but also provide benefit to the wider musical community by acquiring this knowledge.

Many of the discussions around the need for knowledge approached the idea from the perspective that knowledge empowers the individual, granting them greater autonomy and the ability to make informed choices. Further to this idea, there appeared a commonly held belief that if musicians were exposed to certain key information, in many situations, they would naturally shift their behaviours towards ones more conducive to health. The massage therapist touched on this concept a few times, saying that “we [musicians] should all have an anatomy colouring book, that you understand all the muscles that you’re using and what they do. That would change everybody’s picture of themselves and how well you take care of it.” In addition to knowledge affecting behaviour, the massage therapist also spoke to how knowledge affects perception or feeling:

...I’m so passionate about making all of my people understand when I’m talking about certain things, that they understand what that looks like... it’s so important because it completely changes, first of all what they even think that they’re feeling – it does – and then how they’re going to go about changing it.

The massage therapist spoke frequently to the idea that shifting the theoretical understanding can likewise shift the experiential awareness, and this idea will be returned to later in the context of discussing what constitutes relevant knowledge. The physiotherapist was similarly emphatic about the need for information, and focused primarily on its importance for preventing injuries: “all of these injuries that you’ve got should be preventable... Every single one of them should never happen. If you had the information you could look after yourselves, but your teacher has to have it.” Along the same lines of empowering the individual to be able to take care of themselves, the chiropractor reflected on the value of “knowing the conditions that you need to be concerned about... [or] whether you can actually improve it yourself by changing something.” Similarly, in referencing the value of anatomical information for musicians, the osteopath alluded to information providing the musician with the opportunity of informed decision making: “that’s where anatomy might be, may be helpful, in acknowledging how they can maintain good, functional position. And what things interfere with that function, so that they can choose.”
These last two quotes also bring up the issue of what knowledge is relevant or valuable for musicians, which was deliberately addressed in all the discussions through direct questions from me. A common topic that participants felt would be of value to musicians was functional anatomy. It is worth noting that all of the participants who spoke about the value of musicians having some functional anatomy knowledge were emphatic about the importance of it not being strictly textbook learning for the sake of knowing anatomy, but that the anatomical ideas be understood in relation to the individual’s musical activities. The chiropractor, for instance, expressed an interest in musicians not only knowing the anatomical structures used for their music making, but rather understanding how these structures work together and what they need in order to perform well:

*Yes, the general knowledge of body function is a big one. I mean, you would expect, you know, Olympic athletes to know the body, which muscles they’re using, which muscles are maybe injured, to know what their function—, what they do, what they do for you, and what you have to do for them too. So basic body anatomy is a key one. But knowing the muscles is not enough. You have to know what they do and how they function in concert together, you know... So knowing that, yes, knowing conditions, knowing the body structure, but also knowing how they’re tied together is an important one, for me, anyways.*

The osteopath expressed a similar position, focusing on learning anatomy as a way to learn about the positions required to make music, and what facilitates and impedes these positions:

*I think that if you teach [musicians] anatomy in terms of how to hold the position... take violin, for example, when you’re sitting in this position [demonstrates violin seated position], is the student aware of where they’re sitting? Where are you? Are you here, or are you here, or are you here, or are you here? [demonstrates slightly different seated positions] Those are all different. So that’s where anatomy may be, not only of interest – I don’t want to do anything just to pass the time – but actually be useful, because this is different than this, well now the question is why, and I can tell you anatomically why that’s different. Or this is different than this, why? Can you actually hold that position and is it going to be better for the expression of your artistic impression? ... so we want to acknowledge the position you’re going to be in and then say ‘okay, what makes it possible for me to be there, and what things*
interfere with me being there?' Those are the anatomical conversations that probably musicians should have.

The osteopath’s comment also hearkens back to the earlier reflection of anatomical understanding impacting physical experience or awareness thereof. To that end, while the massage therapist was enthusiastic about teaching her patients about anatomy, she partnered the more theoretical perspective with experiential learning through exercises designed to encourage the patient’s awareness of themselves. Similar to the above-mentioned view of information as empowering the individual, the massage therapist alluded to self-awareness as affording the opportunity for informed choice. The physiotherapist also spoke to the partnering of external information with internal sensation when she addressed the value of instructors teaching their students about good posture: “so really it’s going back to teaching them [the students] what good posture is, because when you’ve wrapped yourself around a violin for years... it feels normal, yes [laughter].”

The idea of working with the student’s posture hints at the value of beginning this information with the teachers. While the physiotherapist commented on the value of teaching good posture to students, the massage therapist spoke to the value of instructors, first of all, understanding anatomical posture:

*I think if a teacher has a good understanding of anatomical posture to begin with, of what good, neutral posture looks like, it would be much easier to then look at a student and understand, ‘oh, when they’re lifting their violin, their whole low back is arching backwards’ and you might then as a teacher go ‘hmm, that, that, is that necessary?’*

This concept of instructors needing to have the information themselves, in order to pass it on to students, was a common subtheme. The chiropractor, for instance, commented “I think where it starts is that teachers need to have this knowledge themselves – you can’t teach somebody unless you know it yourself.” Similarly, the physiotherapist alluded to the value of ensuring the instructors had the relevant knowledge: “what [musicians] need is information, and if you can teach the teachers, then they can do a world of good.” The physician similarly frequently spoke of various education projects and programs for musicians that focus on information pertinent to health and wellbeing, and the need to target music instructors who have not participated in these initiatives: “so the middle age to older [instructors] who have not been into all these different
The topic of teachers needing information pertaining to health and wellbeing naturally stimulated some discussions on how to most effectively share such knowledge with this population. The physician, chiropractor, and physiotherapist all commented on how instructors frequently learn this critical information as a result of their own injuries or health challenges, and subsequent interactions with health practitioners. The instructors then pass this information on to students, having a motivating stimulus for acquiring and sharing the information. The challenge with this model is that it is not appropriate for widespread adoption. The chiropractor, for instance, jokingly commented:

*Giving that knowledge to the teachers [is] an important one. They end up actually referring back to us, you know, for cases, but if they’ve been through a case, if they’ve been through an injury, they know that information. So let’s help injure all the instructors and then--*, [laughter].

The physiotherapist similarly commented on the value of an instructor who understands injuries, referencing the idea of wanting, when in hospital, a nurse who limps. The physiotherapist recognized the value of instructors who were both informed and motivated to teach in a way that valued the wellbeing of the musicians, and that her former patients would make great teachers in this way:

*...it all depends on teachers. I know all the ones that I’ve had as patients, all the musicians I’ve had, would be wonderful teachers, because they will remember, and they will really look after the ones coming through their hands, and look out for all the things that they’ve learned. If we can just get everybody doing it, it would be great.*

This theme of recognizing that improvements in musicians’ health require musicians to have exposure to key information or knowledge encompassed a variety of topics. Fundamentally, information was seen as a means of empowering individuals. This need for exposure to information was addressed from a variety of angles. Participants frequently alluded to information as a means to individual empowerment. The content of this empowering information was explored by participants, as well as its means of transmission, namely through lesson
instructors. The implications of musicians having the information necessary to make informed choices for their health and wellbeing is explored under the third theme.

5.2.3 Theme 3) A musician’s ability to make music is dependent on their health, including psychological health, which must be supported by the musician’s way of life

While this theme was addressed in different ways with all participants, it was exemplified most emphatically in the discussion with the osteopath, as may be recalled from his individual analysis. Additionally, the massage therapist was similarly emphatic about the topic. All of the participants acknowledged the significant physical and cognitive demands of playing an instrument like the violin, and that such a taxing activity requires a body and mind that are well supported and nourished. Some participants addressed the idea of musicians needing strength or fitness specifically, while other participants spoke more to the need for general health or fitness as a way of life. All five participants acknowledged in some capacity the psychological demands or implications of a life in music, with different views emerging on how those implications may play out.

Recognizing the physical demands inherent in playing a musical instrument, many of the health professionals drew comparisons to athletes, and spoke of the value of musicians being in strong physical form in order to perform at their peak, and lower the likelihood of developing injuries. The physiotherapist spoke to all these elements, saying

*That's the other thing that you need to get across to musicians: to do what you do, which is exceedingly hard work and needs absolute precision, exactly like Olympic athletes, you have to be very, very fit. And you have to get fit without using your playing muscles... and you’ve got to take this seriously that you must be in good condition to do what you do, because what you do demands such attention and such endurance. And you will fatigue and get hurt if you’re not fit, and that’s when injuries happen.*

Similarly, the massage therapist and osteopath both commented on the physical demands inherent in simply holding the arm out to support the violin, and how these physical demands can be worked around in order to avoid problems. The massage therapist encouraged musicians to develop physical strength in order to support the activities of playing the instrument, while the physiotherapist was generally more cautious about encouraging strengthening exercises. On a
closer view, however, these opinions were not so disparate in that the massage therapist acknowledged the need for “physical strength in the bigger muscle groups,” while the physiotherapist appeared most concerned with musicians using hand-strengthening devices and other exercises that trained areas already heavily worked by playing.

Beyond specific strengthening exercises, most of the participants spoke of the need for musicians to approach fitness and general health as a way of life, with some even referencing the benefits beyond the instrument. The massage therapist, for instance, spoke to the value of movement for musical activities as well as general life:

*I often encourage the kids to, first of all never take an elevator. Run the stairs, and if you’re not fit enough to run those stairs, you make darn sure that you at least walk them every chance that you can. Don’t take a short-cut, take the long way around, so if it means just getting your body moving, that’s half of the battle, if you can make sure that you move your body. First of all, it allows oxygen to pump through our bodies, but it just gives us more mental clarity: we practise better, we listen better, so much of what we do is just better.*

Similarly, the chiropractor expressed a need to view things beyond thinking of them only for the benefit of the instrument, recognizing that the body is a holistic system, and thus even aspects that seem removed from the direct act of playing will influence the music:

*Health in general is an important aspect of it too, though. It’s not just-- you’re not just stretching the muscles that you’re going to use to move your bow. It is the way that you hold your body, the way that-- the stuff that you’re eating, or that your diaphragm, all those things that may be not connected directly to playing per se, but they do-- everything’s connected that way. And so general health, stuff that you’re eating is going to affect the way that your muscles work, so in that respect, it is tied.*

The osteopath similarly articulated his thoughts on how concepts related to general health directly affect a musician’s music making, and hence his recommendation that his patients participate in movement activities or therapies:

*If your diet is really poor, and you don’t exercise and you don’t breathe and you’re inflexible, it’s going to be really difficult to get stuff like this and hold this for a long period*
of time [demonstrates position of holding violin], coming back to this example. I can do this for 5 minutes [demonstrates moving left-hand fingers in violin position] and then I can’t do it anymore. Well if you can’t do it anymore then you’re going to have to change your position, and that’s going to change your expression. So that would be where I would recommend things like movement activities, movement therapies, breathing, yoga...

Far from simply mentioning general health habits in an inconsequential manner, the osteopath emphasized the importance of these ideas, saying

> If there was any recommendation I would make to a teacher to a student, it’s to let your student be a human being, and don’t forget what makes them a human being. They have to move, they have to breathe, they have to eat, they have to sleep.

The maintenance of general health and wellbeing was thus viewed by participants as being critical to the musician’s ability to effectively make music in a sustainable manner. In addition to making comments and recommendations within the physical realm, all the participants also commented on the importance of psychological wellbeing or mental health. When asked whether he felt that there was a psychological piece within the demands of playing an instrument, the osteopath replied, “Yes. A hundred percent. A hundred percent.” Similarly, the physiotherapist expressed, “oh the mental health is desperately important.” When discussing psychological aspects of music making or of health, participants often, though not always, drew together psychological with physical elements. The chiropractor, for instance, referred to the overlap of the psychological and physical components stating “the teacher has to be involved with psychosomatic involvement; psychology of playing music is an important, really important aspect of what’s going on in your body. And so that mind-body connection is important.” Similarly, the osteopath acknowledged the overlap between stress and physical habits, explaining:

> If you want to deal with, in my opinion, making your musician better and preparing a musician to understand what physical things may befall them, teach them about stress... And that is a concept, so it’s all encompassing. There’s no one exercise, it’s everything you do; it’s the breathing, it’s the walk around the block, it’s the stretching afterwards, it’s having a cool-down, it’s taking a day off, it’s drinking, it’s eating good food. All of those things are just in place so we can fight stress.
The previous quote alludes to a topic that generated contrasting views, namely whether or not poor psychological wellbeing could directly contribute to the development of physical injuries in musicians. At one end of the spectrum, the physician’s approach to addressing injury appeared largely predicated on the idea that psychosocial and socioeconomic factors, as well as trauma, affect an individual’s physical wellbeing, and hence can be primary contributing factors to the development of physical injury. This perspective was supported by the physician’s comment, “there’s always a story behind the physical presentation,” as well as the “really heavy-duty mind-body” component to his assessment. On the other end of the spectrum, the physiotherapist was quite clear that physical injuries should be assessed and addressed within the physical realm, and that tying physical injuries into psychological challenges was problematic:

Somehow you need to make sure that no one gets the idea that they can cause a physical injury by mental strain or mental upset, you know. People think, ‘I’m too tense, that’s why I hurt.’ Tension does not make you hurt, it makes you tight. It might give you a headache, but it will not give you any--., a strained muscle or a painful neck, and that is something that they just have to know, otherwise they’re quite sure it’s all self-inflicted again and musicians think they’ve inflicted everything upon themselves. ‘I don’t play right, I don’t practise right, I don’t relax right.’... So no, you can’t have any injuries at all that are caused by being very, very stressed to death. There is no such injury, and if you have a pain, it needs to be fixed. Find out why it is there.

It is worth reflecting on the fact that part of the physiotherapist’s rationale for her perspective is a recognition of musicians’ tendencies to blame themselves for their injuries. By attributing injuries only to their anatomical, biomechanical causes, it is possible to depersonalize the injury to a greater extent, and as a result, potentially reduce the extent to which the musician blames themselves for their situation. This rich theme most clearly illustrated some of the differences of opinion between the health practitioners, while also demonstrating consensus on recognizing the role of health, both physical and psychological, on music-making, and vice versa.

While many of the ideas discussed during the interviews were conceptual, participants also frequently referred to specific practices or strategies that could promote a healthy approach to music-making or lower the risk of developing a playing-related injury. One of the challenges that was regularly presented alongside such strategies was the idea that these approaches were
typically not valued within the musical community, inhibiting their widespread adoption. From these discussions emerged the final theme:

5.2.4 Theme 4) There are practices that can support health, which typically increase efficiency/effectiveness, but the existing culture often does not value such practices

All the practices that were suggested in discussions sought to in some way acknowledge the requirements as well as the limitations of the body and mind, in order to work more productively within them. Subthemes that emerged thus included preparing the mind and body for work through warming up, and acknowledging the demands of the work by cooling down; shifting the emphasis of practising towards greater cognitive and reduced physical involvement; and recognizing the cultural resistance to valuing such practices. While the interview with the physician did not overtly address this theme in a significant way, the topic appeared to be one of great importance to the other four participants, and consequently is included.

The subtheme of warming up the mind and body for musical work, and deliberately counterbalancing some of the strains of this work after practising was emphasized by all four participants. The physiotherapist, for instance, asserted that “warming up is absolutely essential,” while the chiropractor commented on both warm-ups and stretching as being “so important.” Approaching the topic from a slightly different perspective, the osteopath saw the inclusion of warm-ups and cool-downs as an indication of the musician’s commitment to their work and the level at which they work:

As soon as we talk about ‘is there a warm-up or cool-down?’ now you’re talking about the top one percent. I don’t care what it is that you do, if you have placeholders in your day for warm-up and cool-down between playing an instrument, like couching an instrument session, your brain is already in a different stratosphere... it’s like, yes, okay, this person is ready to be a musician now, they’re treating it seriously.

While musicians often conceive of warm-ups as the physical activities that prepare the bodily areas involved in playing the instrument for work, the participants were emphatic about the importance of warm-ups for addressing the whole body and engaging the brain. The massage therapist, physiotherapist, and osteopath all explicitly incorporated the idea of preparing the brain within their discussion of physically warming up the whole body. The massage therapist stated:
Really, for me the importance of a warm-up is to energize your body, to break a pattern of where you were, whatever you were doing previous to that, and it’s getting your brain into a completely different space, getting blood pumping through your body so that your muscles are actually ready to do a job.

Likewise, in discussing what constitutes a warm-up, the physiotherapist explained:

First of all, the tissue itself that you’re going to use has to be warm. So if you’re in a frozen place, warm it up, hot water, anything, anything... You can warm it up also by moving them, and running up and down the stairs is a really good one, because that gets your brain going twice as fast too... it gets the circulation to your brain, so you need that... But your whole body needs to be ready to go, so the stairs are your best plan.

The massage therapist and osteopath acknowledged the benefit of warm-ups specific to the instrument, but focused their discussion of warm-ups on activities that engage the full body and brain, and hence contribute to a more efficient and productive practice session. To better illustrate this more complete picture, the osteopath’s description thereof will be given. After first acknowledging the music- or instrument-specific activities that musicians engage in for a warm-up, the osteopath went on to explain:

But from preparing the muscle to do work? Absolutely! I mean what’s wrong with you going for a run on a treadmill? Increasing blood flow to the brain. That’d be enormous. And then getting in and getting on the piano for a condensed period of time, that’s 45 minutes to an hour, where you’re doing this highly cortically demanding activity where you’re relying on this newfound blood flow to the brain just by going out for a 15-minute run around the block, which is something that I give people to do often. ‘Before you sit down, run around the block.’ ‘What?’ ‘Yeah, go! Run!’ Because when they go around and run around the block, they feel absolutely vitalized and invigorated and they go out and blast out, you know, an hour on the piano and then they stop. They put it away. And then they cool down, so they’re just going to go for a walk, or--. it’s marrying this idea of what their body is actually trying to do.

This idea of using the warm-up to invigorate the musician and render them more alert was regularly emphasized, and the massage therapist went on to then underline the value of mentally
planning the practice session with this newfound alertness to ensure the musician’s time and energy were effectively spent.

Similarly, cooling down was regularly addressed, with overall support for its value, and some nuance in what form an effective cool-down might take. While the osteopath mentioned more than once the idea of the cool-down as a gentle way of returning to a state of lower stress, acknowledging the cortical and emotional intensity of a practice session, he and the other three participants also spoke to the value of stretches or exercises that counter the more specific physical strains of the practice session. The physiotherapist, massage therapist, and chiropractor spoke primarily to more universal stretches or exercises, perhaps targeting areas specific to challenges of a given instrument, while the osteopath highlighted in addition the unique aspects of the individual artistic expression that may need attention.

As alluded to by the massage therapist’s focus on planning the practice session, all participants were emphatic about the value of engaging the brain more in practising, typically with the goal of maximizing productivity while simultaneously minimizing the physical affront to the body. While all participants spoke of the concept of mental practice, the physiotherapist and massage therapist additionally described practical approaches to incorporating elements of mental practice, and both were emphatic about the importance of adopting these practices to lower the risk of developing playing-related injuries. In response to a comment about attempting to incorporate mental practice into teaching, the physiotherapist urged:

*Please push that. Because that’s what’s making our athletes win. And they don’t get hurt because they don’t do their dangerous sport as long or as often. They train their brain. They’ve got to be able to do it perfectly, but they don’t have to do it a thousand times. They can do half of that. And it seems to work, sometimes better than doing it physically. And it works with music.*

Similarly, the massage therapist stated:

*I’d say the most critical thing for saving your body and to being efficient, is mental practice. Like I can’t, I can’t, I can’t tell you how important that is enough, it’s--. out of all the things I learned, one was understanding what my muscles looked like, what they did. The other was*
learning to be better, better management of my time, and that is mental practice... and that doesn’t get taught enough. That is for certain.

Where differences arose in discussions of mental practice was typically what activities could or could not benefit from mental practice. The physiotherapist, for instance, acknowledged that mental practice was beneficial only for something that had already been learned, not for learning new material (“you can only do it with stuff you know, you can’t learn anything like that”). In contrast, the chiropractor and massage therapist spoke to the value of mental practice and planning at all stages of learning.

Evident throughout the discussion of mental practice was the subtheme acknowledging that certain practices or strategies, despite being highly effective, are not valued within the musical community. The chiropractor, for instance, referenced a television program about the brain that he had watched in which someone learned to throw a dart with their non-dominant hand using mental, rather than physical, practice strategies. He explained:

And the precision that he got just by doing the visualizations is incredible... But we don’t value that. We don’t value that time away from actually throwing that dart, and keep trying and keep trying and keep trying. He didn’t even actually touch a dart after that first try. He never touched the dart again until his training was done, and then it’s--, the changes are remarkable. They’re outstanding. They’re so valuable, if we come to learn that they are valuable, there’s [this] hidden thing that we don’t tap into but our brains are pretty amazing just going through that process.

While the discussion of mental practice seemed particularly to highlight this idea of activities away from the instrument not being valued within the musical community, it was certainly not the only practice recognized for it. Warm-ups and cool-downs were seen as being similarly dismissed by musicians in favour of activities that involved physically playing the instrument. The participants consequently felt that part of their role was to stress the value of these underrated practices, with the chiropractor commenting “warm-ups are so important, and nobody does them. Stretching is so important, and nobody does [it]. Those kinds of things, we just kind of hammer on a person.” Along the same lines, the osteopath spoke to the value of spending time away from the instrument to stimulate the brain in different ways, and thereby actually enforce the musical learning.
This idea of not valuing practices that do not directly involve the instrument also extended more broadly to the whole concept of health promotion within music education. Referring to the elimination of various health and wellbeing programs in universities as a result of budget cuts, the physiotherapist commented, “as soon as they’re out of money, the first thing that gets cut is anything other than music.” The chiropractor explored this concept in greater depth, commenting on the implications of working within, versus challenging, the existing value system:

If you’re there to learn violin, people say ‘well I’m not learning violin. If I’m learning about my body, I’m not learning about violin.’ But, you know, that’s a stigma that I think that we have to get over before a lot of changes will happen, because it’s important, but people don’t see it as an important aspect of that.

From the micro level of explaining specific health-promoting techniques to engaging in a broader discussion of cultural values, all four participants heavily explored ideas relating to effective practice strategies within a powerful cultural value system. This theme, consequently, took both a bottom-up and top-down approach to musicians’ wellbeing by exploring practical strategies that musicians can employ to maximize efficiency and limit opportunity for injury, while simultaneously examining how axiology influences behaviour.

5.2.5 Summary

Working with experienced health practitioners from different modalities encouraged the generation of rich and diverse data through this phase of research. In order to better represent the unique qualities of the varied perspectives, each participant’s perspective was presented individually, as its own distinct system. While the five health practitioners presented distinctive approaches to the topic of musicians’ health, they nonetheless ultimately expressed many common views and highlighted similar topics as being important for advancing the wellbeing of musicians, with four overriding themes emerging across the discussions:

1. Instructors are influentially positioned to positively impact musicians’ health
2. Improvements in musicians’ health require that musicians have exposure to information/knowledge
3. A musician’s ability to make music is dependent on their health, including psychological health, which must be supported by the musician’s way of life
4. There are practices that can support health, which typically increase efficiency/effectiveness, but the existing culture often does not value such practices.

Of utmost importance to promoting health in musicians is acknowledging the important role the instructor plays within the musical culture, and recognizing that musicians, and instructors in particular, need information in order to be empowered to make informed choices and improve their wellbeing. This wellbeing, both physical and psychological, was additionally identified as a necessity for musicians to express their art. Finally, participants expressed strategies that they saw as contributing to health, and acknowledged the barriers to health and wellbeing that are created in a culture that does not value such practices.
Chapter 6
Phase Three (Students) Findings

This phase of the research served largely as a culmination of the previous phases, with its purpose being fundamentally to explore from students’ perspectives the feasibility of incorporating ideas of health promotion into post-secondary violin studio lessons, by means of a practical exploration study. While implementing the Health Promotion Concepts in lessons comprised a key component of this phase of the research, the purpose of this task was largely to provide a platform for engaging with students at the post-secondary level to discuss health promotion at large, and the merits and drawbacks of this specific approach in particular. As such, this phase was guided by a single, broad research sub-question:

1. What are students’ experiences with and perceptions of the Health Promotion Concepts?

In order to closely approximate the typical post-secondary violin lesson environment, the practical exploration comprised eight, one-hour lessons, scheduled approximately weekly. Assessments were conducted before the first and after the last lesson, and consisted of three questionnaires and a short playing task. The final assessment additionally included an interview with the participant, designed to explore the participant’s experiences with the lessons.

Six students participated in the lessons, three of whom were current undergraduate students and three were recent graduates. Three of the participants identified as male and three as female. Participants were almost all in their early 20s, with ages ranging from 20 to 26 years. Based on the strong emphasis expressed by the instructors and some of the health practitioners on responding in an individualized way to the unique needs of the students, the Health Promotion Concepts were left intentionally general to facilitate tailoring instruction to each student’s needs and interests. As a result, in addition to shifting in content and style over the course of each participant’s eight lessons, the lessons also varied considerably from one participant to another. The lengthy contact time (almost 10 hours) combined with the variety of data generated with each participant provided opportunity to analyse data individually by participant and thus acknowledge and convey the participants’ varied experiences with the lessons. As a result, data is analysed first individually before being presented in a group analysis.
6.1 Individual analyses

6.1.1 Participant 1

Participant 1 was a recent graduate from the music education program and as a result was not studying with another teacher throughout the duration of the exploratory lessons. Indeed, the opportunity to have regular lessons and the motivation that such an arrangement affords were in part what drew Participant 1 to participate in the research. Participant 1 was herself a violin instructor and periodically alluded to incorporating ideas from the exploratory lessons into her own teaching. A few recurring ideas emerged in the interview, which were similarly present in the questionnaire and throughout the lessons, comprising three dominant themes: 1) an appreciation for exposure to new ideas; 2) an acknowledgment of the challenges of a lack of motivation; and 3) a commitment to stretching as a health promoting practice.

6.1.1.1 Theme 1) An appreciation for exposure to new ideas and new ways of approaching the instrument

Throughout the interview, Participant 1 was vocal about the idea that the exploratory lessons had introduced her to new ideas and new ways of approaching the violin, which she adopted not only into her approach to the instrument, but also her own teaching of it. Participant 1 specifically mentioned the idea of warming up and cooling down in a lesson as being a novel practice, saying that traditionally “we would just go right into it during the lesson. Like the teacher would go, ‘so what are you playing today?’ Yeah, and we’d never, like stretch.” Similarly, Participant 1 expressed that some of the anatomy ideas, including the presence of a skeletal model in lessons, was new to her and that these ideas had been helpful: “I really liked the skeleton, ‘cause no teacher ever talked about like, ‘this is the this bone, and this is the this bone, and that’s why you can’t reach it right now, it’s because of that, the other bone’s in the way,’ so I liked that.” Participant 1 also regularly referenced ideas relating to awareness of the body and of unnecessary tension, which had been frequent topics in our lessons. This regular focus on awareness and seeking to eliminate unnecessary tension had enabled Participant 1 to successfully execute certain challenging passages in her repertoire that she had believed to be quite literally beyond her physical reach, encouraging her to broadly adopt an approach to the violin that fostered greater relaxation in all aspects of her playing. While she acknowledged not knowing whether or
not she was more aware while she played, she nonetheless asserted “I feel more relaxed while I play.”

6.1.1.2 Theme 2) An acknowledgment of the challenges of a lack of motivation

From the beginning, Participant 1 acknowledged that part of the incentive behind participating in the study was to benefit from the motivation that regular lessons can inspire. This idea of seeking motivation emerged in a variety of forms, for instance, at both the initial and follow-up assessments, Participant 1 listed only “lack of motivation” and “lack of goals” under Question 21/22 of the researcher-developed questionnaire (“Are there other physical, psychological, or knowledge-based challenges/obstacles that you feel are impeding your ability to become the violinist you would like to be?”). This lack of motivation also came up in lessons and in the interview during discussions about whether Participant 1 had adopted certain recommendations that involved time away from the violin (e.g. warming up/cooling down or writing down practice goals). For instance, when asked for suggestions to improve the lessons or make them more valuable or relevant, Participant 1 stated, “I think it was largely on my part. Like I should’ve kept a practice log and I should’ve wrote goals like you told me to, but I didn’t do that, ‘cause I didn’t feel prompted to.” While Participant 1 often followed through on my recommendations as they related to practices at the instrument, for instance practising a passage with a metronome, or employing a specific practice technique for a given passage, recommendations that involved time away from the instrument, for instance writing down practice goals, or warming up/cooling down, were less eagerly adopted. This trend will be explored in greater depth in the group analysis, where power dynamics and external sources of motivation will also be explored.

6.1.1.3 Theme 3) A commitment to stretching as a health promoting practice

An interesting apparent contradiction to the trend of Participant 1 not adopting new practices away from the instrument was her enthusiasm for stretching before playing. When asked in the interview if she had observed any changes to her practice habits, she responded “Yeah, I stretch before I practise now. It’s very quick, it’s like two minutes to five minutes, but it still helps. And then, like, I take aspects of other people’s teaching and I put it into my own teaching, so then I make my kids stretch before each lesson now too.” In the case then of stretching, not only had
Participant 1 evidently adopted a regular stretching regime as part of her own practice, but she had also been inspired to include it as part of her teaching. Her appreciation for stretching was also evident in other parts of the interview. When asked about highlights of the warm-ups/cool-downs that were covered in the lessons, for instance, Participant 1 mentioned she liked the stretch provided by one of the cool-down exercises practised on the floor, and similarly, when asked if there were any warm-up/cool-down movements she found less useful, she reported “I don’t remember anything that didn’t stretch anything.”

The high value that Participant 1 placed on stretching challenged me to reflect more deeply on what I had taught in the lessons, given that I thought I had not only never taught, but even explicitly discouraged, stretching before playing. I was able to explore this topic more fully using questionnaire data as well as lesson videos, which helped clarify an interpretation that, while certainly not the only possible explanation, may help in part explain some of the apparent contradictions on this topic. Some of the ideas that led me to my interpretation are as follows:

- Although in the interview, Participant 1 implied that stretching before playing was a new practice inspired by the exploratory lessons, at her initial assessment, she reported on the researcher-developed questionnaire that she “always” warmed up physically before playing, and that the warm-up typically lasted 15 minutes and consisted of “stretching, scales, arpeggios, finger exercises.” On the final assessment, the same question yielded the response that she “sometimes” warmed up physically, which typically lasted 5 minutes and consisted of “stretching, looking at the music.”

- At the first lesson, Participant 1 demonstrated the stretches that she typically practised before playing. In response, I mentioned that there was a growing body of research suggesting that long-held stretches before playing may be counterproductive, and that physically warming up the body and increasing blood flow by running up and down stairs, for instance, may be more beneficial. Likewise, at the end of the lesson, when talking about suitable cool-down activities, I repeated the idea of stretches being better-suited to cool-down or after-playing time rather than before.

- In all subsequent lessons, warm-ups were always discussed, with Participant 1 typically running up and down the stairs. Over the course of the lessons, Participant 1 occasionally asked
if she could stretch instead of run the stairs, and was given instead the alternative of running on the spot.

- When topics arose that addressed the body, including discussions of stretching, Participant 1 often referenced sports or exercise activities that she was involved in. Examples include Participant 1 commenting that certain muscles felt tight, either while playing or explicitly examining how the body felt at a given point. When asked how she knew the name of the sore muscles, Participant 1 explained that she had learned the terms through a sport that she had been involved in and said the muscles were sore from her recent exercise activities. Similarly, after discussing breathing and the movement of the spine in a few lessons, Participant 1 commented that she now noticed in an exercise/movement class when the instructor would say something that seemed to contradict what we had discussed in lessons.

Throughout the lessons, I struggled with the extent to which I should continue to reiterate the idea that many of the health professionals I had interviewed were fairly emphatic about warming up through movement rather than stretches, and that this idea was supported by research. If, however, part of an instructor’s role is to help their students to develop their ability to identify problems and enact solutions that work for them, should I perhaps be encouraging Participant 1 to continue with a practice that she enjoyed and felt served her well? In the last lesson, for instance, when asked about her warm-up routine, Participant 1 stated that she was continuing her regular stretching before practising “and then my body feels fine.” An additional consideration was that this practice of stretching before the activity in question appeared to be potentially both informed and encouraged by non-violin activities in which Participant 1 regularly engaged, and as such, criticizing the practice could be interpreted as undermining the knowledge of other instructors and coaches in Participant 1’s life. As a result, while many opportunities arose in which I could have more directly dissuaded stretching before playing, I found I was uncomfortable explicitly discouraging this valued practice and chose instead to regularly encourage the adoption of new practices. I hoped that Participant 1 would experience the benefits of these new practices and find for herself compelling reasons to continue them. Unfortunately, due to the lack of motivation for adopting practices away from the violin, this shift did not appear to occur, at least not during the duration of the eight lessons.
The recognition that many of Participant 1’s views on how the body functions and how to achieve optimal function came from activities other than the violin calls to mind the physiotherapist’s comments on the responsibility of music instructors to be aware of and monitor other activities in which their students are engaged. Taking this idea a step further, if violin instructors are not regularly incorporating discussions of the body into their instruction over the years, students are likely to develop their understanding of the body and its best maintenance practices completely independently from the violin. When instructors then try to incorporate some anatomy or other body-related concept into their teaching, the student will likely seek to fit the new idea into their existing knowledge and values, which have been shaped by other experiences. This idea offers one explanation of the stretching paradox that emerged with Participant 1. While Participant 1 stated that stretching had never been a part of her violin lessons before these lessons, she nonetheless had a strong connection that warming up meant stretching; an idea that persisted despite me explicitly contradicting it and enforcing alternative practices.

An awareness of this trend could have various practical implications for instructors, including:

1. It encourages instructors to begin discussions about the body with their students early, if they wish to help shape the student’s understanding of their body;
2. It encourages instructors to be aware of other activities the student is engaged in, and how ideas they are exposed to elsewhere may contradict the instructor’s own views;
3. It encourages instructors to ensure that the information they convey is based on solid evidence and clear rationale in order to help safeguard against the student receiving contradictory information from various sources, but rather contribute to helping the student build a more thorough and multi-faceted understanding of the body and its function.

As one of the elements of the study that I found most uncomfortable, Participant 1’s commitment to stretching as a warm-up provided opportunity for reflection, some of which has been outlined above. While the above exploration is by no means exhaustive, it provides a few different perspectives for considering the apparent paradox, which come with their own practical implications. The other two themes that emerged through the work with Participant 1, including her admission of the challenge of a lack of motivation for incorporating practices away from the
instrument, and her appreciation for exposure to new ideas both arose with other participants and will be explored again in those contexts.

6.1.2 Participant 2

Unlike the other participants, Participant 2 had not only completed an undergraduate degree, but also two graduate degrees in violin performance, from which he had recently graduated. He was recruited to the study by his undergraduate instructor, and expressed an eagerness to participate as an opportunity to play for someone regularly and see what he might be able to incorporate into his own practice as well as his teaching. His participation was welcomed as an opportunity to explore the Health Promotion Concepts with a student with a slightly different background, recognizing that while many undergraduate students begin their degrees very shortly after high school, as was the case with the other participants, some students participate in other musical training before embarking on an undergraduate degree.

Perhaps more than the other participants, Participant 2 explicitly framed his experiences in the lessons as fitting into a larger context of assessing input from various instructors over his years of lessons, which he incorporated as he saw appropriate into his own playing as well as his teaching. In distilling the experience of participating in the exploratory lessons, Participant 2 assessed the lessons as taking a body-oriented approach to violin playing. As my goal was largely to assess the merits and drawbacks of taking a body-oriented approach to violin instruction, it is hardly surprising that a number of participants commented on this feature, however, their interpretations were varied and are worth considering independently. Participant 2’s viewing of the lessons in a body-oriented frame comprised the main theme of the interview.

6.1.2.1 A body-oriented approach

When asked how the exploratory lessons differed from conventional post-secondary violin lessons, Participant 2 remarked that the exploratory lessons typically addressed musical goals by way of addressing the body:

it’s a little more body-oriented: there’s some warm-ups, and so it’s a little bit unique in that sense... when you have a problem, you would try to go from the perspective of what can you do with your body to help. A bit more breathing, or in terms of where you are physiologically, and stretching, and also how you kind of group things around.
This practice of identifying “what can you do with your body to help” comprised a significant component of the practical exploration lessons, and took various forms at different times. In the first lesson with Participant 2, for instance, I observed that Participant 2 was rounding his spine and drawing his head forward as he approached a passage of chords that comprised a musical arrival point. As Participant 2 had expressed dissatisfaction with his chords and I felt that the current interpretation was not affording a satisfying musical arrival, I suggested that Participant 2 try maintaining a more upright spine and skull, perhaps even thinking of leaning backwards as he approached the chords. When Participant 2 played the passage again, trying to remain more upright rather than curve forwards, both he and I noted that the chords sounded louder and fuller, and Participant 2 commented that “it felt more comfortable.” Practices similar to the above-mentioned example were regularly employed in lessons, where I adopted a heavy focus on observing ways in which body movements may be hindering the physical movements necessary to execute a musical goal.

In the interview, Participant 2 commented that this regular focus on the body over the course of the exploratory lessons helped him keep ideas of body positioning in mind while playing, so as to avoid developing habits that could lead to injury now or in the future. He expanded on this idea, saying

*I think a positive [effect of the exploratory lessons] is that when I practise, I try to keep it more in mind, like about the body, the posture, so sometimes if you don’t think about it, you can go down a little bit of a slope, and you can develop bad habits... and I know that as we get older, injuries--, even if you haven’t had pain, it starts accumulating, so it’s good to have good posture now.*

Participant 2 found that he was able to keep an awareness of his body in his mind while playing, which he could bring to the centre of his attention when needed: “it’s in the back of your mind, and sometimes you can bring it more to the front.” Participant 2 commented that this awareness and ability to visualize his body was aided by having the skeleton model on display in lessons and seeing visual representations of anatomical concepts, which was a novel lesson experience. Similarly, Participant 2 found value in the mindfulness practices taught during the lessons for increasing focus in practice sessions. Ultimately, Participant 2 found that the various concepts discussed regarding the body and mind “worked” in the context of the lesson, and were inter-
connected, which helped increase body awareness: “I think I was more body aware, and especially when you visualize it a little bit, and you can see a little bit of your posture, and the breathing, and the spine. It all--, I think it comes together a little bit.” In this way, his experience with the various components of the Health Promotion Concepts all ultimately converged to create a positive experience immersing himself in a body-oriented approach to music-making.

6.1.3 Participant 3

Participant 3 was a recent graduate from the performance program who began the exploratory lessons with a keen interest in the body’s role in playing the violin, and at the end of the lessons, spoke of a number of benefits to his playing that had emerged through the course of the lessons. The idea of the body as the means of making music, and the benefits of approaching the music from observing the body’s function, comprised a large component of the interview, leading to the first theme of the body makes the music. This theme comprised three subthemes: “technique comes from the body,” developing greater awareness, and “experimenting” with the new approach. Additionally, throughout the interview, Participant 3 offered a number of suggestions for aspects of the exploratory lessons that could be improved according to his experience. These modifications typically centred on having the instructor provide more tangible guidance, and as such, collectively comprised the second theme.

6.1.3.1 Theme 1) The body makes the music

This overlying theme was present throughout the interview, and took on a few different forms, which will be considered as subthemes: “Technique comes from the body,” developing greater awareness, and “experimenting” with the new approach.

6.1.3.1.1 Subtheme 1: “Technique comes from the body”

As previously mentioned, Participant 3 began the exploratory lessons firmly committed to the idea that the body affects playing, and that playing can be improved by using the body more efficiently. Indeed, it was this interest that drew him to participate in the study, as he hoped to learn more about how the body worked, in relation to playing the violin. Participant 3 acknowledged that others may not share his perspective, but was nonetheless confident in rationalizing his belief:
it may seem like a cop-out of like 'oh you’re just--, instead of focusing on technique, you’re trying to fix it or hide it under just by--,' but I think it’s just like, technique comes from the body. It’s a body that does the technique, and whatever helps the technique, you should try experimenting and doing.

Furthermore, over the course of the lessons Participant 3 personally experienced benefits of approaching challenges from this perspective, noticing that some problems that he had previously attempted to address from other, perhaps more conventional, perspectives, were beginning to dissipate with this different approach: “a lot of problems now [I] was thinking about trying to solve for a really long time, I started to solve it with just noticing how the body functions when playing.” “Noticing how the body functions when playing” also tied in with the second subtheme, developing greater awareness.

6.1.3.1.2 Subtheme 2) Developing greater awareness

One of the most positive outcomes of Participant 3’s involvement in the exploratory lessons was the increased self-awareness it fostered, and the implications this awareness had for his sense of relaxation while playing, his focus, his perception of the space around him, and his approach to addressing problems. When asked, for instance, if he had noticed any differences in his playing that he attributed to these lessons, Participant 3 responded, “feeling more relaxed when playing. Definitely. Like my awareness of what my body’s feeling and what’s tense and what’s not has increased a lot... I think just overall I just feel more relaxed and in control of my playing.”

Interestingly, Participant 3 also felt he noticed a pattern in his practice sessions in which increased physical tension correlated with poor mental focus. As such, he felt the emphasis on body awareness and avoiding excessive tension during the exploratory lessons may have helped with his mental focus:

I think it’s helped me become more focused in practising, and sometimes I feel like the reason why I’m not focused in practising sometimes is ‘cause my body feels tense. I don’t know, or maybe I’m just completely wrong, but I remember the times where I’m not focused, and my body’s just tense, it just doesn’t feel good. And the times that I do feel good practising, when I’m focused, my body’s just completely relaxed, like it’s just, there’s no pain, at all, and I think these lessons help with that.
Participant 3 also briefly alluded to the idea that some of this awareness of the body was aided by the anatomy instruction, particularly in the form of having the skeleton model in lessons, saying “you just know that part exists in your body. Just knowing that exists is just like you—, your brain’s just suddenly aware of it and you feel a little bit more.” This comment is highly reminiscent of the massage therapist’s reflection on the value of understanding the structure of the body on the basis that it changes what the individual feels: “[knowledge of the body’s structure is] so important because it completely changes, first of all what they even think that they’re feeling – it does – and then how they’re going to go about changing it.”

While the exploratory lessons focused predominantly on developing greater body awareness through increased knowledge of the structures involved coupled with fostering increased attention on sensations, the lessons with Participant 3 in particular also often addressed the topic of noticing the space around one as a performer, often as a component of working with sound production. These ideas resonated quite strongly with Participant 3, and he mentioned them in the interview as moments where he “was like ‘whoa!’” He also identified that these discussions had shifted aspects of how he felt as a violinist, stating

> I feel like I have more space to work with, just around me, like instead of this much space for it [gestures small space immediately around himself], now I have this whole area [gestures full room] that’s just like—, it feels like it’s my space to work around.

Similarly, his perspective on how to address musical or technical challenges had shifted, with him now feeling he could still continue to address challenges in a very focused, direct, technical way, but if that approach was not yielding much success, he could also try approaching the problem from a broader perspective of noticing what he was doing with his body, or shifting the focus of his attention:

> I think the direction in terms of what I focus on has changed slightly. Like whenever I feel like I’m working really hard on something, like one note or something, maybe it’s better—, maybe the other approach is maybe something to do with my body. Like maybe I just have to change the way I think about something or the—, what I’m feeling during playing that note instead of trying to think technically what I’m doing wrong... So, yeah, I think I incorporated another tool into the toolbox with that.
This comment of incorporating “another tool into the toolbox” is profoundly congruent with the chiropractor’s perspective which centred around adding to the student’s toolbox.

For Participant 3, the practice of developing greater awareness appeared to have wide-ranging positive spin-off effects. Perhaps the most important of these was a perception of greater control over his playing, both in terms of direct, physical control of the instrument, as well as an expanded toolbox from which he could draw to address various challenges, whether technical or relating to his ability to focus, both of which are highly empowering.

6.1.3.1.3 Subtheme 3: “Experimenting” with the new approach

Based on discussions in lessons as well as the final interview, Participant 3 appeared to adopt many of the ideas presented throughout the lessons. Importantly, however, Participant 3 did not appear to take up these practices on blind faith, but rather from a perspective of trying them out to discover their relevance or utility to his playing. As such, when Participant 3 would describe his attempts to work by himself with the ideas presented in the lesson, he often described it as “experimenting” or “playing around” with the new ideas in his practice room.

Participant 3 also spoke highly of many of the aspects unique to this approach. He valued, for instance, the more general and open-ended approach to music, rather than the more conventional approach, which could be considered more specific and repertoire-based. His perspective emerged largely in response to being asked if the exploratory lessons differed from typical lessons, when he quickly responded

Oh yeah... So much different, ‘cause normally in a lesson, you just walk in, you tune and you play something and then the professor gives you feedback for the rest of the lesson. And I think the structure of this lesson is like a lot--, beginning was like mindfulness and doing the stretching and prepping the mind before playing and doing open strings before you play. I don’t think I’ve ever really done that in a lesson, not recently. And I think that was, that is helpful. It really does help feel relaxed when playing... I actually think most of time in the lessons is so much on doing specific things that pulling it back and focusing on general things is really helpful, which I think these lessons are.
Participant 3 also spoke positively of his experiences experimenting with the mindfulness and psychological/self-talk components of the lessons, which he appeared to view as interrelated, or at least complementary, practices:

*I think it was particularly helpful just to not get into the really negative mindset, where it just becomes destructive instead of constructive... And I think the mindfulness helps re-centre our brains, like it just brings it back a little bit into the more objective mindset or helps the body relax and all that so that your mind can get back into the objective and constructive mindset where you can be critical, but it’s in a healthier way.*

As a further testament to his apparent valuing of the mindfulness practices, Participant 3 alluded to experimenting with incorporating them into his own teaching, saying: “*I try and incorporate [mindfulness] with my own students. Like I have a student right now, it’s like, ‘oh this mindfulness thing is really cool.’*”

Throughout the lessons and interview, Participant 3 expressed a keen interest in the approach taken in these lessons, motivated largely from a conviction that it is the body that makes the music. He was therefore eager to experiment with the various new ideas presented in this approach, both in his own playing and his teaching. He also valued the lessons for their focus on developing greater body awareness, recognizing that technique comes from the body and thus greater awareness of the body can facilitate technical trouble-shooting. While Participant 3 valued many aspects of this approach, some areas resonated less for him, and he used the interview as an opportunity to suggest potential improvements in these areas.

### 6.1.3.2 Theme 2) Providing more guidance

In addition to the extensive positive feedback which Participant 3 gave on the exploratory lessons, he also had multiple recommendations for potential improvements for the lessons, primarily in the form of requesting more explicit guidance from me in order to make concepts more directly applicable. He suggested, for instance, that I (or another instructor):

- provide more feedback on what I observed in the participant’s playing, both in terms of what I thought sounded good, as well as what I observed the participant doing physically in order to create the good sound, especially in the earlier lessons, rather than asking the participant what they heard and felt
• provide more explicit instruction on how to structure a practice session that incorporates the various elements presented in the lessons (he gave the example of: “just do this five minutes before you practice”)

• draw more connections between the anatomy concepts discussed and the repertoire being worked on, so that this newly-acquired knowledge “can be applied in the playing a little bit more.”

When bringing up many of these suggestions, Participant 3 often acknowledged that time played a considerable role in determining what all was possible in a lesson. He suggested that perhaps lessons could be lengthened to afford more time to explicitly making the connections between the general skill or knowledge acquisition (for instance, learning about anatomy) and the repertoire in which it applies. He also recognized the limitation of time on a broader level, acknowledging that eight lessons over approximately two months is not a particularly long time to make significant changes, and that many of the concepts he had been or was still struggling with (for instance, figuring out how to best organize his practice to incorporate new ideas of warming up, mindfulness, body awareness, and cooling down, among others) require time to resolve. This observation was highly reminiscent of the chiropractor’s perspective of “it’s a learning process,” and his view that the concepts I was hoping to cover were indeed important, but that it would take time for students to internalize them in a meaningful way. Indeed, Participant 3’s observations speak to the importance of teaching these concepts over a longer period of time, perhaps beginning with more explicit instruction and gradually encouraging students to develop their individual solutions under the guidance, support, and instruction of knowledgeable instructors.

Participant 3 provided significant support for the concept of a body-oriented approach to instructing violin, recognizing that it is the body that makes the music. The valuing of this approach was supported by his acknowledgment that “technique comes from the body,” the multiple positive off-shoots of his development of greater awareness, and by personally experiencing benefits of “experimenting” with the new perspective. Participant 3 additionally raised important considerations regarding the manner in which such an approach is taught, which highlighted the value of such instruction occurring over a more prolonged period of time.
6.1.4 Participant 4

At the time of the practical exploration study, Participant 4 was in the early months of returning to school after taking a year off to address some health challenges, including a playing-related injury for which she had pursued physiotherapy treatments. Participant 4 readily shared her experiences with the pain and discomfort associated with the injury, as well as how she was attempting to address the problem, and our lessons often addressed strategies to help meet the taxing playing schedule required of her undergraduate degree. Two overarching ideas emerged from the interview with Participant 4, which were supported by the lessons and the questionnaires she completed. The first theme that emerged was a shift in mindset towards valuing many of the tasks that were not explicitly playing repertoire, most notably warming up and cooling down, and the second theme spoke to an apparent empowering that had occurred, in which Participant 4 reported many activities that suggested an increased independence and ability to identify challenges and find her own suitable ways to resolve them.

6.1.4.1 Theme 1) Valuing warm-up/time spent on activities other than working on repertoire

From the initial assessment and early conversations with Participant 4, it became evident that she valued working on repertoire, and had few regular practice habits that consisted of non-repertoire activities, for instance, warming up away from or with the instrument. By the end of the exploratory lessons, however, her attitude on these activities had shifted, with Participant 4’s questionnaire responses changing from “rarely” warming up physically (“just stretching my arms and neck”) to “almost always” warming up physically (“physically running in the spot, jumping jacks”). Similarly, her response regarding physical cool-down shifted from “never” to “almost always,” consisting of “stretching any tense muscle.” Her responses also indicated an understanding of warming up as physically warming the body and preparing the mind and body for work. Participant 4 elaborated on these ideas in the interview, where she stated,

*I’m not used to doing a lot of warm-ups or cool-downs. I used to just get into practising reps [repertoire], like straight into it, but then after doing this [the exploratory lessons], I’m doing a little physical warm-ups and also musical warm-ups… I think because now I’m sort of more aware of what I should be careful, and that I think warm-up gives a little time to maybe think about it, and then so, I think your body’s more aware of that you’re going into
practising, because I think I felt more tension, or like stress in my, on my body whenever I just go straight into practising, of just doing the reps, because they do work a lot of muscles.

In addition to observing physical benefits of warming up, Participant 4 also spoke to the musical value of simple musical warm-up exercises. Often, the first activity in Participant 4’s exploratory lessons to involve the violin consisted of playing open strings. While Participant 4 initially expressed displeasure with the practice, she evidently came to find value in it, and in the interview, attributed important developments in her sound to such practices:

In the beginning, I was kind of worried about the sound quality or producing good sound, and then, that kind of led to realizing I don’t play as much open strings, and then playing open strings, you can make aware of more about, like easier stuff because you don’t have to worry about all the notes. So I think now I have better sound quality than I used to before, and since the beginning of these lessons.

Participant 4’s comment also alludes to an acknowledgment of the value of greater awareness, and its potential for positively impacting playing. Participant 4 spoke more explicitly of this focus on self-awareness and reflection when she highlighted the differences between the exploratory lessons and the lessons which she was accustomed to:

I’m used to just going through all the reps and then just playing stuff, not observing how I’m playing, as like a posture-wise or like sound quality, or, and like structure-wise, and then we went through thinking how to support the violin, where it should be relaxed and things, places to think about in your body, ‘cause we usually only think about musical stuff.

It is interesting to note that these various points of focus outside of the typical realm of “musical stuff” yielded perceived positive effects for Participant 4 in the crucial musical realm of sound quality. Given these positive outcomes, it is understandable that Participant 4 came to value some of the non-repertoire activities that comprised a significant part of the exploratory lessons. She also evidently received sufficient positive reinforcement through the benefits to her playing to motivate her to continue these practices, at least for the duration of the practical exploration study.
6.1.4.2 Theme 2) Empowerment through knowledge and awareness

The theme of empowerment emerged primarily from Participant 4’s apparent increase in knowledge and self-awareness through the exploratory lessons. One of Participant 4’s comments that addresses the idea of empowerment most directly speaks not only to her increased knowledge and understanding of various concepts related to the violin, but also to her heightened awareness of resources available to her that she could access when needed, putting her in a more empowered position to be able to resolve questions and challenges as they arose:

*I think it was good to know all the stuff that I should have known before but might not really have thought about before. Like anatomy-wise and just, or even the books, or like that I can go look up whenever I need to.*

Similarly, Participant 4 spoke about practices that were used in the exploratory lessons to help bring self-awareness to movements or tendencies that she had been unaware of, and how this increased awareness then encouraged her to continue to explore the concepts on her own:

*Yeah, it was good to see what I was doing, when I didn’t know, and that kind of brought me to awareness. And then, so like putting the scroll onto the wall kind of made me notice even more, so kind of made me go practice in front of the mirror some more.*

Participant 4 also alluded to a shift in mindset that had occurred over the course of the lessons. Initially, Participant 4 had some specific ideas about what the correct position for her body should be, based in part on her interpretations of observations made by medical professionals. Unfortunately, her efforts to adopt some of these ideal postures often caused increased irritation to already painful areas, as she found that typically when she began focusing on something else, she would lose the perfect position. When she became aware that she had lost the ideal position, she would endeavour to reset it, the process of which involved movements that caused increased pain. Over the course of the lessons, we frequently discussed ideas relating to identifying a more neutral alignment, while recognizing that life tasks, including playing the violin, depend on the body’s ability to deviate from these neutral positions. As Participant 4 shifted away from trying to hold a perceived ideal position, she experienced less pain associated with the irritated area. Her shift in perspective appeared to reflect an empowered ability to assess the merits and
drawbacks she experienced when she attempted to stay within the rather rigid molds she had created for herself, and she spoke of this shift in her perspective in the interview:

*In the beginning, I thought there was always one good posture or any one good place to put your violin up on your shoulder and chin, but I think that changed quite a bit because I was always conscious about not being straight, because I know I have like some back or neck, kind of like not being curved [an observation made by a medical practitioner], and I was kind of conscious of it. And then, I guess, I was stressing too much on that idea, but I think now I’m more comfortable with the general idea that there isn’t really like a one straight position that I have to keep and then it might be even more stressful to actually think about it like that.*

This shift in mentality also appeared in some form in Participant 4’s questionnaire responses. On the initial assessment, her response to Question #21 of the researcher-developed questionnaire (“Are there other physical, psychological, or knowledge-based challenges/obstacles that you feel are impeding your ability to become the violinist you would like to be?”) stated “I am not sure how I should do to keep my posture comfortable and straight.” On the final questionnaire, her response to the same question was very different, stating “I feel a little bit challenged playing in long rehearsals.” Evidently, Participant 4 was less concerned with, or felt less challenged by, maintaining proper and comfortable playing positions, and instead acknowledged that playing in long rehearsals was “a little bit” challenging. Indeed, some performing arts medicine health practitioners advocate for better work hardening programs for injured musicians, acknowledging that it is impractical if not irresponsible to expect musicians recovering from injury to immediately participate fully in rehearsals and concerts. Unfortunately, at the time of writing, gradual re-integration programs are not common, and based on discussions with Participant 4 and other participants over the course of the practical exploration lessons, there was a perceived need or desire to fully participate in rehearsals and to avoid any behaviours that would draw attention to the student (e.g. taking a break by putting the violin down during orchestra rehearsal while the rest of the section is playing).

In addition to letting go of some rigid ideas about postures that should be held, Participant 4 also valued learning a bit about anatomy and about movements that could be practised after playing the violin, particularly movements that encouraged awareness while taking the body outside the
typical movement patterns associated with playing the instrument. Participant 4 seemed to view this knowledge as relevant information as a violinist, and appeared grateful to have gained some insight and skills in the area:

I think it was good to learn anatomical parts about my body, and then how they work... I think it's good to learn them or get a knowledge about those even once, as a violinist or as a musician, because it is something that we do only on one side, so I think it's good to know how to balance them and then do cool-downs.

This perspective of the value of basic anatomy knowledge and familiarity with potential cool-down exercises suggests an increased independence and ability to take some responsibility for self-care. It also ties into the first theme of valuing practising activities that occur away from the violin, rather than perpetuating the view that only those activities practised at the instrument have value: an idea that many of the interviewed health practitioners spoke of. Overall, Participant 4 spoke highly of her experiences with the exploratory lessons, valuing the knowledge and skills the lessons offered that, while typically separate from playing the instrument, or at the very least the repertoire of interest, nonetheless often yielded tangible benefits to playing. Importantly, Participant 4 also expressed and demonstrated an increased sense of empowerment through the acquisition of this very knowledge and skills.

6.1.5 Participant 5

Participant 5 was in her third year of the performance program, and was eager to participate in the exploratory lessons, as the topic of musicians’ health was of great interest to her. Throughout the lessons and assessments, Participant 5 expressed enthusiasm for the various components that she found unique to these lessons, with an overarching theme emerging of valuing exposure to new ideas. Within this broader theme emerged a secondary theme regarding the importance of practices to promote psychological wellbeing.

6.1.5.1 Primary theme: Valuing exposure to new ideas

From the first lesson, Participant 5 was clear about her interest in the study as stemming largely from a desire to learn more about what she felt was an important topic, but was not one that had been well addressed in her education until that point. In the interview, Participant 5 explained “I
was so interested in the topic of your dissertation, so it was like ‘yeah, that’s cool.’ We never had this before at [this school] and I think I really need that kind of stuff to focus on my own work.”

Throughout the interview, Participant 5 frequently mentioned that warming up and cooling down, as presented in the exploratory lessons, was particularly helpful. This topic initially came up at the first lesson when the participant expressed appreciation for being shown warm-ups and cool-downs. She commented that the idea of warming up and cooling down was regularly mentioned and indeed granted importance by instructors in words, yet she felt she had never been taught what they physically entailed, or how to actually go about practising them. Perhaps in part due to this pre-existing sense that she was missing important information, Participant 5 was quick to adopt the warm-up and cool-down practices that were presented in the lessons, mentioning in the second lesson that she had started incorporating warm-ups and cool-downs into her individual practice. Interestingly, even with prior mention of warm-up and cool-down, Participant 5 found that the way in which these ideas were presented in the exploratory lessons created a shift in perspective as to their role in a musician’s life:

> It was interesting for me because nobody had actually mentioned it before to me that as a musician, as a violinist, you need to exercise as well, you know to--+, you need to--+, I don’t know, your vision about your violin and your practice session should be like, I don’t know, like an athlete, you know, you have to know how to cool down and how to warm up, and it was so interesting for me to find out the similarity.

As Participant 5 began incorporating these practices into her own practice routine, she quickly experienced mental and physical benefits, which in turn helped reinforce the newly-adopted practice:

> After the first lesson that we had, I just started to warm-up, like running the stairs of the practice rooms or just on the spot, for a minute or something, and then start to practise, and then I was more engaged than before, and I had more ideas, how’s a problem here and how do I have to solve it now. And then after the practice session, even after the day, you know, we have orchestra and we have chamber music rehearsals, I, just to stay in the practice room and I force myself to cool-down, because I found it, I don’t know, helpful and relaxing after a long day, you know, after hours and hours practicing. And it’s super helpful for the day after when I have to come back to the practice room and start the day again.
Both within and beyond the practices of warming up and cooling down, Participant 5 repeatedly expressed an appreciation for the various practices that in some way worked with increasing body awareness. Participant 5 specifically mentioned the cool-down exercises as being beneficial for noticing the body, saying

> even these yoga exercises, I found it super helpful because we never have it at [this school] or any other schools. And for us as a musician or music student, it’s super helpful to know how to just focus on our body as well and not just go to practice rooms and hours and hours just hurting yourself, you know, your body.

Other practices that Participant 5 mentioned as useful for increasing awareness included such varied approaches as discussing the anatomy of breathing, and learning about anatomy in general, as well as exploring unnecessary tension while playing open strings or scales.

One final idea worth noting is that when asked during the interview if there were any other experiences she had had with the exploratory lessons that she wanted to share, Participant 5 took the opportunity to express appreciation for hearing about the various sources of information that I drew upon in my teaching. Generally, during the lessons, I made an effort to credit the sources or inspiration for different practices that were introduced, attempting to maintain a casual, not overly academic, approach while providing some information should participants wish to follow up on the ideas individually. Periodically, I would draw on ideas that had been presented at various relevant academic conferences that I had attended, in which cases, I would mention the conference and discuss the applicable presentation. Participant 5 expressed appreciation for this practice of referencing sources, for the manner in which it broadened her knowledge of the field of musicians’ health, given her existing interest in the topic:

> One more thing that I really liked about these lessons was you always talk about the seminars that you went to before, and it was super cool for me to know about them because I’m so into all this stuff as well, so I found it super interesting.

This interest in hearing about the context of the information presented appears to suggest a desire to engage more critically with the subject matter and better understand this developing field. It is apparent that Participant 5 was intrigued by ideas relating to musicians’ health and by research
occurring on the topic, and was aware that these concepts had, as of yet, been fairly absent from her education.

Throughout the exploratory lessons, Participant 5 demonstrated a genuine interest in the general subject matter of the lessons and an eagerness to try new ideas. Participant 5 took the opportunity in the final interview of commenting on the newly-presented practices she had adopted and the value she found in incorporating them into her routine.

6.1.5.2 Secondary theme: The importance of practices to promote psychological wellbeing

Over the course of the interview, Participant 5 alluded to a few different aspects of psychological wellbeing that had been touched on during the lessons, and her appreciation for these basic ideas and practices. Most lessons with each participant included some version of a mindfulness practice, often taking the form of a one- or two-minute silent practice of directing the individual’s focus toward their breathing. This practice usually took place near the beginning of the lesson, often as an opportunity to help participants transition from whatever activity or class they were running from to the lesson environment. Participant 5 expressed an appreciation for this practice, saying “I really liked the way that we start the lesson with relaxation, with the breathing, and like for two minutes or like one minute.” Participant 5 further expanded on this idea later in the interview when she shared an experience she had had of attempting to use this practice of attending to the breathing to help counteract symptoms of performance anxiety. Discussions of performance anxiety arose in lessons with a few participants, and often I presented the idea of potentially using a mindfulness practice as one tool to settle the mind and ease some of the physical effects of performance anxiety. Participant 5 had evidently tried out one such approach, as when asked in the interview about her perspective on the usefulness of the mindfulness practice in a performance setting:

*It was seriously, to be honest, super helpful for me... because I got super nervous before the masterclasses or even with my lessons with [her teacher], and I remember two weeks ago... I had to play in masterclass and before that it was like ‘okay, I have to experiment with this breathing stuff before I go and play for all my colleagues and [the masterclass instructor], and I did that, and I--*, even while I was playing in front of all the people, I was trying to*
focus on my breathing as well at the same time... it was so challenging for me, but afterwards, I feel like I wasn’t nervous at all, and my bow, it was the first time that it wasn’t shaking.

In addition to valuing mindfulness practices and discussions of strategies for working with performance anxiety, Participant 5 also spoke to a shift in her awareness of her attitude towards herself. Participant 5’s comment came in response to a question about whether she had observed any changes in how she thought about herself as a violinist or how she thought about her playing. Participant 5 quickly responded “you mentioned a couple of times in my lessons with you... that we have to be nice to ourselves, and I noticed that I was super hard on myself... it’s a good way to look at it, you know, change your vision.” This idea of being aware of one’s attitude towards oneself was also a component of discussions surrounding performance anxiety, such that all topics Participant 5 raised surrounding psychological wellbeing were ultimately interconnected. Participant 5’s discussion of these topics suggested she saw practices that promote psychological wellbeing as important and a crucial component of musicians’ health.

Throughout her participation in the study, Participant 5 demonstrated a keenness to learn more about a topic she evidently valued, namely musicians’ health, and to try out suggested practices to see how they could benefit her practice. Participant 5 enthusiastically embraced concepts of warming up and cooling down, and expressed an appreciation for fostering increased body awareness through various means. She also identified multiple valuable topics in relation to promoting psychological wellbeing and expressed multiple shifts in her intellectual approach to the violin along with changes to her physical routines.

6.1.6 Participant 6

Participant 6 was a third-year composition major, and as a non-performance major, had fewer playing requirements than the other two participants who were students at the time of their participation in the study. Throughout the interview with Participant 6, he repeatedly spoke of the exploratory lessons as being similar in many ways to more conventional violin lessons, but that they additionally incorporated other elements that needed to be delivered in a holistic manner to carry weight. From these discussions emerged the first theme: Not that different, but holistic. Participant 6 also frequently referenced ideas of knowledge empowering informed choice, leading to the theme of Knowledge as opportunity. Finally, Participant 6 often alluded to
systemic and cultural barriers to the widespread adoption of many of the ideas presented in the exploratory lessons, yielding the last theme.

6.1.6.1 Theme 1) Not that different, but holistic

While this theme emerged out of a few different comments throughout the interview, it appeared most clearly out of Participant 6’s response to being asked if the exploratory lessons differed from the lessons he was accustomed to. His response, along with other comments later in the interview, suggested that he saw much of how the repertoire was approached in the exploratory lessons as being fairly consistent with his other lesson experiences, but that some of the practices that occurred outside of working on repertoire helped inform the approach to the repertoire. As a result, he viewed it as important that the concepts be delivered holistically or seamlessly, so as to encourage students to better appreciate the value of the other activities, not just as optional addenda to working on repertoire, but as practices that meaningfully inform the repertoire work. He identified the manner in which the exploratory lessons differed from conventional lessons saying

Yeah, I think, well definitely all the other stuff [which he had earlier referred to as ‘pre-practising and post-practising stuff’]. You know, we wouldn’t usually do that. I think actually in the end, when we approach the repertoire, it is not so different, right? Because, I mean, after we sort of draw awareness to all that stuff – stuff that you should be doing anyway, maybe in a slightly different way and using different terms – when you get down to the actual playing of pieces, I don’t think it’s that different. But I think to get into that approach, you have to do the other stuff, otherwise you’re not going to understand why. You know, it’s not as holistic, right, it doesn’t become part of a process, it just sort of becomes like a masterclass where this person has an opinion and you take it in but you might not do anything with it later... I just think that the other things, the other components of that process – that people need to see it as a whole, rather than just add-ons to that main thing.

Participant 6 also spoke of the five target health promotion elements being well-integrated in the lessons, saying “in the format that you have, I think they’re pretty well integrated, so it doesn’t feel like, ‘okay, we are doing this now, and then we are doing this.’” He commented on the importance of these concepts being “seamless,” presumably to help encourage students to adopt the whole package, saying “ultimately the goal is to have it be automatic – not automatic, but
you know, natural to them, so where they don’t have to have someone telling them to do that.” In addition to reinforcing the value of maintaining a holistic perspective on the health promotion concepts, this comment also speaks to Participant 6’s emphasis on the value of students internalizing knowledge, which is addressed in the next theme.

6.1.6.2 Theme 2) Knowledge as opportunity

Participant 6 made a number of comments that addressed the benefits of students internalizing knowledge and thus being better positioned to make informed choices. These comments appeared both as reflections on his own experiences as a result of the lessons, as well as more theoretical discussions. Some of these personal experiences of increased knowledge and hence increased capacity to make informed choices were also coupled with increased awareness. When asked, for instance, about whether he had observed any differences in his playing violin since participating in the exploratory lessons, Participant 6 stated

I wouldn’t say like, ‘got worse’ or ‘got better,’ I wouldn’t really say that, but I know that I’m more aware of things like, you know, the neck, or keeping a straight line through the body or stuff like that, or being a little bit more flexible and not, you know, being so rigid in one position. So I’m definitely more aware of things like that and I now know how to adjust when I see myself doing the wrong thing. Yeah, so I don’t know if that has actually positively impacted my playing, but it definitely has health benefits [laughter].

He spoke even more explicitly about his increased knowledge and the additional choices it opened in response to being asked about changes in how he felt while he played:

I think noticing, you know, tiredness or just wear and tear. Noticing that and then knowing how to, to a certain extent, how to diagnose the problem, as opposed to having pain and then not playing, or just playing through it. Now, I mean, after having done this I’m more aware of those things and also more aware of how to deal with them.

Both these comments speak to the importance of knowledge or education as a key component of health promotion, by empowering the individual to make informed choices within day-to-day activities.
Interestingly, Participant 6 seemed less convinced of the merit of anatomy education as part of health promotion. This perspective arose when he was asked if he found the anatomical information provided in the lessons helpful. His reflection on the topic is included unedited in its full length to most accurately present his nuanced exploration of the topic:

 Yeah, I’m not sure. Again, I just wonder, because there’s sort of a fine line between actual medicine and then just health, and I know that this is health and not medicine, but, I don’t really know how to put this, but, again, in a situation where there actually needs to be some medicine, I wonder if that would be more applicable, you know, as opposed to a regular situation where that’s not strictly necessary because, I mean, obviously it’s useful to know that but maybe they don’t absolutely need to do that, or even if they knew that, they wouldn’t know how to adjust the inner workings. Like, it might be more useful just to say something, you know like, ‘keep your back straight here,’ ‘don’t lean forward’ or ‘don’t lean back,’ ‘don’t sit on your hips’ or something like that, you know. Yeah, I think like, obviously giving a basic outline of what’s going on is helpful, but beyond that, because it’s not really, you know, like a medical practice, it might--. something--. what’s the word? like less technical would be sufficient.

It is interesting to note that some of the comments Participant 6 suggested as alternatives to the lengthier, more technical explanations (e.g. “keep your back straight here”) could potentially be interpreted by some as reinforcing the dependence on the instructor to some extent, rather than empowering the student to have the information necessary to be able to develop their own suitable solutions. Nonetheless, his perspective raises an important point regarding finding an appropriate balance of information for each individual student, especially in topics that can seem more distantly related to the music at hand.

In contrast to his perspective on anatomy education, in discussions about performance anxiety, Participant 6 spoke of the importance of the student developing an appropriate strategy that did not rely on the instructor, to ensure that “that resource is there even when the person or the lessons are not there anymore.” Participant 6 acknowledged that addressing performance anxiety was to a large extent a personal journey, and as such, while it may benefit from external advice and coaching, it fundamentally required individual exploration: “I think most people understand why they’re nervous or what they can do to not be nervous, but it’s just, will you actually do
those things and can you actually do those things at that point? And no one can really teach you that.” In order to best serve this ongoing journey, Participant 6 felt that a “longer period of exposure [with an instructor/coach] might help just because it would get them into that mental routine.”

The importance of developing a routine came up a few times in the interview, and was not limited to the realm of performance anxiety. Indeed, Participant 6 spoke of the true value of the practices introduced in the exploratory lessons as being in their inclusion in the student’s regular routine, rather than through touching on them once a week in the context of the lesson. As such, the instructor’s role was seen as being largely about coaching the student in developing their own useful and adaptive routine over time: “I think out of the things that we did, I can see that those are things that you need to pursue on a regular basis. It’s more about teaching a routine rather than, ‘oh come in once a week for this’ kind of thing.” Teaching skills for students to adapt and integrate into their individual routines represented another form of Knowledge as opportunity, empowering students to develop and tweak routines that worked for them with ongoing guidance and support from instructors, as needed. Additionally, this idea of changes in behaviour or mindset taking time to implement came up frequently over the course of the interview with Participant 6 and will be addressed to some extent as part of the following theme and in the group analysis.

6.1.6.3 Theme 3) Systemic and cultural barriers

Throughout the interview, Participant 6 often alluded to the playing or repertoire component of the exploratory lessons, which he contrasted with the other components of the lessons. When asked how he would name or describe these other components, he depicted them as “adjusting to the environment, pre-practising things and then post-practising things.” He then elaborated on these other components, saying

*I think most people don’t really do that [the non-repertoire components] because you’re always just running around and your room is only booked for an hour, so obviously you’re not going to stretch for 15 minutes. But, you know, if you’re at home or in a place where time is more flexible, then I think those things would be useful.*
With this comment, Participant 6 brought up a few different important concepts that present barriers to the widespread adoption of some potentially beneficial practices. In his comment, for instance, Participant 6 explicitly mentioned the challenge of securing practice space at the school (“your room is only booked for an hour”). Over the course of the practical exploration lessons and interviews, a few participants alluded to the challenge of obtaining space or equipment for practising or doing warm-ups/cool-downs. Perhaps even more compelling in Participant 6’s comment, however, is his indirect acknowledgment of a music school culture that values time at the instrument above other activities, by stating that if one only has a limited amount of time in a practice room, “obviously” one wouldn’t spend a quarter of that time stretching. This idea appeared repeatedly and in different forms both with Participant 6 and some of the other participants who were eager to adopt suggestions that could instantly be incorporated into the time with the instrument, but struggled to find time to take on new practices away from the instrument. Participant 6, for instance, mentioned

*I think I will have to still work out how to incorporate some of those other things, but the things that I can do while I’m playing, with regards to posture and muscles, I’ve definitely already adopted. But the other stuff, you know, it also takes extra time, so you need to find a way to incorporate that.*

Despite Participant 6’s tendency to view the concepts presented through the exploratory lessons as part of a holistic approach (Theme 1: Not that different, but holistic), it was nonetheless evidently not feasible to view some of the non-playing activities as so integral to practising that they could be conceived as part of the practice (Theme 3: Systemic and cultural barriers). In a view where they were seen as an integral and beneficial part of the practice, they would not necessarily be seen as adding time to the practice session. Instead, by re-allotting practice time according to shifted priorities, these activities could be included within the existing practice slot. This pervasive attitude regarding the perceived value of playing versus non-playing activities was perhaps most notably identified in the interview with the chiropractor, and will be explored in more depth in Chapter 7. Participant 6 nonetheless saw aspects of the approach as empowering for students by granting independence through greater knowledge and skills (Theme 2: Knowledge as opportunity); a perspective congruent with those of multiple other participants.
6.2 Researcher reflections

Given the extent of my involvement with the practical exploration study, some of my reflections on the experience of engaging with the exploratory lessons will be discussed prior to presenting the group analysis. Three main ideas emerged for me over the course of the lessons: 1) The challenge of “going against the grain”; 2) The challenge of personalizing lessons; and 3) The challenge of space and logistics.

6.2.1 Theme 1) The challenge of “going against the grain”

The exploratory lessons provided an interesting challenge for me, given my extensive experience with receiving and instructing more conventional lessons, both in the decades leading up to and occurring concurrently with the practical exploration study. My familiarity and comfort, therefore, was with lessons in which working on repertoire comprised the majority of the lesson time, leading me to periodically experience some guilt at taking time away from repertoire work. Fortunately, during some of the earliest exploratory lessons, I was successfully able to draw very direct connections between physical and musical obstacles in the participants’ playing. From these experiences, I drew increased confidence with the lesson approach, as these experiences affirmed to me that it was possible to keep the music at the heart of the lesson, with the Concepts serving to provide a greater range of tools with which to approach musical challenges. Nonetheless, I continued to experience some apprehension regarding the most appropriate balance of playing and non-playing activities for each student and for each lesson, given that I had limited examples to work from, and knowing that each student had different goals and expectations, spoken or unspoken, for the lessons. I was also aware that the participants’ willingness to continue attending lessons, and hence my ability to collect data, was largely dependent on the participants finding value in the experience. This reliance on participants’ positive valuation inverted the traditional power dynamic where students typically strive to please their teachers and thereby ensure a favourable grade and career advancement recommendations by the (often) renowned musician.

6.2.2 Theme 2) The challenge of personalizing lessons

As previously mentioned, one of the themes that emerged through the interviews and lesson observations with the violin instructors in the first phase of the study was the idea that each
student is unique and that part of the instructor’s role is to tailor their teaching to each student’s individual needs. This idea weighed heavily on me as I planned and then began instructing the exploratory lessons, as I aimed to avoid any perception that I was delivering a “one-size-fits-all” approach to health promotion in the lessons. In an effort to ensure that the lessons addressed topics of relevance to the students, I did not devise an eight-week lesson plan to be delivered with all participants. Rather, I sought to incorporate the five Health Promotion Concepts as appropriate throughout the lessons, in ways that met the needs and desires of the students. Balancing the Concepts with the participants’ priorities proved challenging, however, and I felt I occasionally allowed the balance to shift too far towards addressing the participants’ goals and interests than towards ensuring that I had satisfactorily addressed all five Concepts. This tendency was also strengthened by the ideas addressed in Theme 1 (The challenge of “going against the grain”), where it felt easier to justify spending more time with the participant playing repertoire of their choice than discussing or working on mental practice, for instance.

The individual-based approach also meant that I occasionally felt unprepared in the first lesson with a participant, where I strove to respond to what had arisen in the questionnaires and playing task, as well as what the student expressed they wanted to get out of the lessons, without the luxury of time to plan or ensure that I had the most relevant supportive resources on hand for the lesson. This challenge of resource availability was significant enough to warrant a category of its own.

6.2.3 Theme 3) The challenge of space and logistics

From the earliest efforts to schedule lessons, I quickly discovered that booking rooms for lessons would present a barrier to the delivery of the practical exploration study. While I was, in the end, fortunate to be able to primarily use rooms within the main music building, I did not have consistent use of one room where I could leave resources, as is unfortunately the case for a number of the instructors teaching at that institution. After carrying parts of the skeleton model to and from lessons, I was able to secure storage space for the skeleton model and yoga mat in the music building, which facilitated their incorporation into lesson teaching. Based on my own challenges transporting the resources, I was amply aware that teaching with such aids is only feasible for instructors who have a dedicated studio where they can leave resources, unless the school makes such supplies available to instructors for teaching purposes.
The exploratory lessons also highlighted other resources that would have been an asset to the lessons. As part of enabling increased body awareness, I often worked with participants on gaining a better visual representation of what they were doing physically. I frequently hoped to use a mirror to facilitate this valuable learning experience. As mirrors were absent from almost all of the rooms used, other reflective surfaces were regularly sought out, ranging from windows to shiny pianos, with varying degrees of success. While these other solutions, combined with the use of mobile phones to take pictures and videos, were useful, having mirrors present in teaching studios would nonetheless be an asset. An additional challenge of the space, which is by no means unique to the building used, was the challenge of varying temperatures as weather patterns changed. The occasionally less-than-ideal ambient temperature was particularly noticeable when I would exhort the value of warming up and ensuring the body was indeed physically warm while playing, while I myself wore a coat in an effort to stay warm while teaching in the cool room.

Over the course of the practical exploration study, I encountered a few challenges to the delivery of the lessons, which I have outlined above in recognition of the fact that some of these challenges may well be encountered by other instructors who attempt to incorporate health promotion education into studio lessons. The barriers fell largely into three categories, namely 1) The challenge of “going against the grain”; 2) The challenge of personalizing lessons; and 3) The challenge of space and logistics. While I do not attempt to suggest that these challenges would be universal across instructors or institutions, some can nonetheless be seen as indicative of a music education system that does not currently place significant importance on health promotion as part of music performance education. The struggle to justify spending time on activities other than working on repertoire, for instance, is symbolic of the general musical culture’s values, as well as the institution’s current educational priorities. Likewise, while the institution understandably provided pianos and tools for traditional learning (e.g. blackboards, desks), resources like mirrors, skeletal models or other anatomical images, or yoga/exercise mats were absent. The broader implications of these systemic values will be explored in greater detail in Chapter 7.

6.3 Group analysis

As significant emphasis has been placed on exploring each participant’s experience individually, allowing the reader to identify some commonalities between participants, the group analysis will
focus primarily on perceived patterns of the differences between participants, with a brief
mention of the main themes common across participants. The overlying themes evident to some
extent in all participants were an acknowledgment of the novelty of the exploratory lessons, and
empowerment spurred by greater knowledge. The differences noticed between participants’
reactions to the lessons will be examined largely in the context of investigating motivating
factors within the participants’ playing lives, namely observing the differences between
performance majors with heavy playing requirements and non-performance majors with fewer
playing opportunities.

6.3.1 Theme 1) Novelty
All participants spoke in some capacity of the novelty of the exploratory lessons, referencing
components that the participants were not used to experiencing within the lesson environment.
Participants frequently referenced the idea that lessons traditionally focus on working through
repertoire, and that concepts such as physical warm-ups and cool-downs, anatomical discussions,
or mindfulness practices do not typically appear in lessons. While these inclusions were new,
they were nonetheless generally well-received, with each participant stating different highlights
from among the new inclusions.

6.3.2 Theme 2) Empowerment through increased knowledge
One of the most encouraging elements of the exploratory lessons is the way they appear to have
stimulated greater independence and resourcefulness within participants by increasing their
knowledge of topics related to violin playing and health. While this trend was evident in the
interviews, it was largely by comparing responses to particular questions in the initial versus the
follow-up researcher-developed questionnaire that this shift became particularly prominent. This
topic has already been explored to some extent in the individual participant analyses, however its
significance makes it deserving of further exploration.

Within the researcher-developed questionnaire, it was typically questions regarding how the
participant addressed challenges that most elucidated this shift towards empowerment. Often,
responses in the initial questionnaire included a heavy component of seeking answers externally,
while the responses in the follow-up questionnaire suggested greater internal reflection and
analysis. Question #20, for instance, frequently highlighted this difference, with the query “have
you sought treatment or changed the way you practise as a result of your pain/problems?” and “if yes, how?”. Participant 1 initially answered the question with “asked professor, went for massage,” while on the follow-up questionnaire, she responded with “try to think about the spine and its alignment.” Similarly, Participant 4 responded initially with “I did Pilates for a while to get my posture balanced and chiropractic” and in the follow-up with “tried to change the posture I play or examined any unnecessary tension and tried to find better chin/shoulder rest.” Even Participant 3 who responded initially with an answer more reminiscent of other participants’ follow-up responses, nonetheless suggested even greater proactivity and connection between physical and musical goals in his follow-up response. His responses were: “slow the playing down and become more aware of the part that is in pain. Focus on using that muscle/joint properly sometimes incorporating it in warm-up,” followed in the final assessment by “focused on a posture that allows me to feel the most relaxed and the freedom to express. When practising always trying to notice when I’m feeling unnecessary stress/tension and then changing something so the tension goes away.” These questionnaire responses were coupled with discussions in the lessons and interviews that suggested that through the lessons, participants had gained knowledge and an awareness of resources that left them feeling more empowered to make informed choices regarding their playing and their health in relation to their playing. Given the importance of education in health promotion generally, these findings are fitting and encouraging regarding the potential benefits of incorporating different health promotion information into the studio lesson context.

6.3.3 Theme 3) Different motivating factors

As with music students in general, each participant came from a different background and with different ongoing playing obligations. Each participant chose to participate in the study for different reasons and hoped to benefit in different ways from the lessons. These general ideas took on a very tangible form within the realm of shaping participants’ motivation to adopt the new ideas presented in the lessons. The remainder of the group analysis will explore this topic of how different motivating factors affected participants’ willingness to experiment individually with the concepts presented in the exploratory lessons. This topic is important as not all music students will be equally keen to experiment with health promoting practices as those who voluntarily agree to participate in a health promotion study, and thus it is useful to minimally understand the diversity of motivating factors within this select group.
A significant goal of the exploratory lessons was introducing participants to new practices that could ideally be incorporated into the participants’ own practice routines. As the lessons progressed, it became evident that different participants were more or less motivated to adopt these new ideas into their routines. At one end of the spectrum, and as has already been mentioned, Participant 5 spoke at her second lesson about having immediately adopted the suggested warm-ups and cool-downs into her routine. Similarly, Participant 2 referenced practising mindfulness practices that had been introduced in the lessons, and Participant 3 often spoke of experimenting with different ideas that had been presented in the lessons. As was mentioned in the individual analyses, both Participant 3 and 4 spoke in their interview of the positive effects they had noticed as a result of engaging in warm-ups. Indeed, in the interview, when asked what she had found the most helpful or useful from the lessons, Participant 4 immediately spoke of the ideas that had been presented regarding how to structure her practices, including warm-ups and cool-downs, saying the most useful thing was learning “how I have to organize my practising routines and also some warm-ups that I should go through, and things that I should think about when I practise, and like how the body is structured.” This quote provides strong support for the idea that Participant 4 viewed the beneficial ideas presented in the lessons as comprising practices that occurred both within and outside of working on repertoire. Indeed, all four of the previously mentioned participants suggested through their comments that they saw benefits beyond only those ideas that could be incorporated while practising repertoire. It is also worth noting that all four of these participants were performance majors either while they were in school (if they had already graduated) or at the time of the lessons.

While many participants alluded in some way to the challenge of adopting new habits, this idea was most pronounced with the remaining two participants, Participants 1 and 6, who both spoke of the challenge of establishing new habits that took time outside of the time spent with the violin. It seems likely that the reduced playing demand on these two non-performance majors created fewer motivating factors for changing established habits. These participants, for instance, had a diminished risk of developing a playing-related injury due to the more limited time they spent playing their instruments, and the implications of developing an injury may also be reduced compared to the implications for a performance major whose current academics and future career may both feel more jeopardized by such an injury. On a related topic, these non-
performance participants may have experienced slightly less internal pressure to be performing at their peak abilities, as they again had less riding on them playing at their highest level, both from an academic and career perspective. These reduced motivating factors, coupled with the additional demands competing for their time and energy, may well have contributed to these participants not investing in shifting their practice habits beyond those easily adoptable while playing. Finally, there is also the logistical reality of it being easier for someone who practices four hours a day to find time in those hours to incorporate warm-ups and cool-downs, for instance, compared with someone who practices less than an hour a day. As many health professionals noted, shifting habits to include practices that are relevant to the violin yet occur physically away from the instrument can be challenging at the best of times due to a strong culture of valuing time playing the instrument above all else. When students have little incentive to adopt such practices, for instance they have little resting on achieving their peak performance or are not spending enough time with the instrument to make it crucial that the time at the instrument be used effectively, it is even harder for students to shift these habits.

A further indication that participants incorporated elements from the exploratory lessons in ways that most addressed their individual musical and career needs came from the participants who openly identified as violin instructors themselves. All three participants who spoke about teaching violin (Participants 1-3) alluded to incorporating elements from the exploratory lessons, including non-playing activities, into their own teaching. These assertions reinforce the concept discussed in connection with the first phase of the study, namely that instructors draw heavily from how they themselves have been taught, to shape their teaching. Also implicit within this trend is the idea that by incorporating health promotion education into studio lessons, it is not only the current generation of students who are potentially positively affected, but also subsequent generations, who will study with today’s students.

Before concluding this analysis, it is important to reiterate the unique participant qualities inherent in the study’s design, in that only violin students interested in learning concepts related to health promotion would likely volunteer to participate in the study, let alone continue through to the end of the exploratory lessons. Recognizing this characteristic, the overwhelmingly positive feedback from all six participants suggests that while this approach to violin lessons likely would not appeal to all students, there are evidently students for whom such instruction provides important opportunities for developing crucial knowledge and skills, and thereby a
sense of empowerment. Encouragingly, the participants tended to report elements of improved wellness as it relates to their music-making as well as positive developments to their music-making itself as a result of their involvement in the exploratory lessons. These positive findings, coupled with the potential for multi-generational benefits, present a strong case for larger explorations into incorporating health promotion education into music studio lessons.
Chapter 7
Conclusion

7.1 General overview

The purpose of this research was to explore how health promotion education can be incorporated into post-secondary violin studio lessons, and how students respond to such an integration. The research questions guiding the study were: 1) What comprises ideal health promotion education in the post-secondary violin studio; and 2) What are students’ perceptions and experiences with lessons that incorporate this health promotion education?

In order to include the voices of a variety of key players on this topic, a multiphase qualitative design (Creswell, 2013) was adopted. The design used for the current study comprised three phases, with one phase each being devoted to gaining perspectives from post-secondary violin studio instructors, health practitioners who work with injured violinists, and post-secondary violin students respectively. In addition to gaining topical insights from experts in their fields, the goal of the first two phases was to help shape the development of Health Promotion Concepts for inclusion in post-secondary violin lessons. The third phase then consisted of trialing these Concepts with students for further refining and to gain the students’ perspectives on health promotion inclusion in studio lessons.

All participants were selected using purposeful selection, specifically targeting key knowledgeable in each area (Patton, 2015), and comprised four instructors, five health practitioners from different modalities, and six students. Phase one consisted of pre- and post-observation interviews with the instructors, bookending four to five lesson observations with each instructor, while phase two comprised interviews with each of the health practitioners. Phase three consisted of a practical exploration study of eight, approximately weekly, one-hour private lessons with me as the instructor, designed to replicate conventional post-secondary lessons with the addition of the developed Health Promotion Concepts. Students completed questionnaires and a playing task before and after the series of lessons, as well as an interview following the lessons to discuss experiences with the Concepts and provide suggestions for modifications.
7.2 Acknowledgment of transformation

The research underwent a transition over the course of the study, from conception to execution and analysis as I experienced a transformation through my engagement with the subject matter and the participants. Through the initial conception phases, I approached the topic from a more specific and positivist mindset, encouraged in part by the nature of the literature I was most exposed to. Gradually, as the research continued and discussions with participants and other researchers stimulated different ways of thinking, including more critical perspectives, I became more interested in broader questions and implications stimulated by a more critical approach to research. One tangible result of this transformation is that while early stages were guided by thinking in terms of injury prevention, including the beginning of the first phase in which I worked with the violin instructor participants, later stages of the research were governed by thinking in terms of health promotion. Rather than return to the earlier phases to recreate and present them under the new onto-epistemological beliefs, the natural course of study has been maintained with the hopes of accurately presenting the research process; acknowledging the capacity for research to transform all involved, including participants and researcher; as well as providing the reader the opportunity to witness this subtle yet powerful transformation, and potentially in the process experience some of this transformation themselves.

7.3 Overview of findings for phases one-three

Each phase of the research facilitated an analysis of the respective data, with the following themes emerging from their respective phases:

7.3.1 Phase one: Instructors

1. Instructors fill an influential and multifaceted role
2. Every student is different and the instructor tailors their teaching to the individual’s needs
3. There are systemic barriers to promoting health within the existing system
4. Health promotion education in music ideally needs to be proactive and holistic
5. The purpose of health promotion in music: At the heart of all of this must lie the music

7.3.2 Phase two: Health practitioners

1. Instructors are influentially positioned to positively impact musicians’ health
2. Improvements in musicians’ health require that musicians have exposure to information/knowledge
3. A musician’s ability to make music is dependent on their health, including psychological health, which must be supported by the musician’s way of life
4. There are practices that can support health, which typically increase efficiency/effectiveness, but the existing culture often does not value such practices

7.3.3 Phase three: Students
1. Health promotion in studio lessons is novel
2. Empowerment is achieved through increased knowledge
3. Individual motivating factors affect adoption of health promoting practices

7.4 Collective findings
By examining key topics and points of overlap across the different phases, three overall themes emerged, recognizing 1) A clash of values; 2) Learning is a process; and 3) Health promotion education is empowering.

7.4.1 Theme 1) A clash of values
Throughout all phases of the research, evidence arose supporting the idea that many aspects of health promotion clashed with the dominant musical culture. In the second phase, health practitioners commented on musicians’ reluctance to spend time on practices away from the instrument, for instance mental practice, regardless of how beneficial these practices may be to the musician’s physical wellbeing or musical goals. Similarly, in the third phase, some of the student participants acknowledged the challenge of incorporating practices that occurred away from the instrument, such as planning out a practice session, favouring activities that could be incorporated into repertoire practice.

The student participants also regularly alluded to another indication of this clash of values, by commenting that the lessons they were accustomed to consisted typically of launching directly into repertoire, and continuing with this focus until the end of the lesson. Indeed, these reflections were fairly consistent with what I observed during the lesson observations of the first phase.
Other indications of this clash that arose through the first phase of the research included Participant Z’s observation about the approach to learning music from a young age, which is reprinted here:

*Perhaps one of the issues that you have with the way early child training kind of works is that you practise your piece, and you get your piece, and you perform it and you’re like ‘woohoo! I achieved something,’ right? It’s a real goal-oriented system, and if you play your piece well, the people are happy. If you don’t play your piece well, it’s like ‘[clicks tongue] I didn’t play my piece well.’ Not happy. And that doesn’t lead towards considering the whole process of how you get there all that much.*

Participant Z’s observation could in some ways similarly be applied to post-secondary education. The instructor participants in the first phase were all drawn from the same University, and consequently all adhered to the same institutional policies. When asked whether the University set out clear expectations, goals, or benchmarks that instructors’ students were expected to meet, all of the participants responded by outlining the repertoire that students needed to cover over the course of their degree (for instance, the number of concertos, sonatas, works of unaccompanied Bach, studies, etc.). These repertoire guidelines were evidently in place to ensure that all students received similar breadth and depth of studio instruction, regardless of which instructor they studied with.

Prior to my discussions with the instructors, I had asked a performance administrator at the University if it was possible to obtain a copy of the guidelines or course curriculum for studio lessons, either specific to the violin or general to all undergraduate studio lessons at the University. I hoped that by seeking out multiple data sources, I would increase the variety and adequacy of data (or “triangulate” data), knowing that academic courses and even many practical courses at the University typically had thorough curricula devised by the individual course instructors. I reasoned that there were likely institutional policies to ensure that instructors met certain standard requirements, and that these requirements would provide insight into the institution’s priorities. When I spoke with the performance administrator about my request, I was informed that no such document existed, but that I should contact one of the violin instructors who would be able to speak to the departmental expectations. The instructor in question had already been contacted to be involved in the research, and when we discussed the requirements,
the instructor mentioned the repertoire guidelines outlined previously. Indeed, in the interviews with the instructors, I inquired about guidelines for student instruction, attempting to ask open-ended questions about goals and expectations that the University set for its students. All participants responded by outlining the repertoire requirements explained above. The fact that the primary guidelines to ensure lessons were appropriately administered across instructors consisted entirely of specifying repertoire selections, highlights the value system and resulting priorities in studio lessons. It is interesting to consider this curriculum choice, in light of Kincheloe’s (2012) reflection on curricula:

All curricula come from somewhere. The ‘somewhere’ subject matter and modes of teaching come from is marked by particular understandings, philosophical assumptions, interpretations of information, cultural inscriptions. It is a subjective place where some interests are included and others excluded. A self-conscious curriculum, therefore, is aware of the power relations that shape it. (p. 112)

This curriculum, or set of requirements, is not unique amongst post-secondary music programs in privileging (Western Art Music) repertoire as the irrefutable vehicle for the transmission of presumably all relevant instrument-based knowledge and skills. The practical implications of such priorities are evident in lessons that focus on covering repertoire, potentially at the expense of other valuable knowledge and skills that remain excluded from the curricula.

Participant Z also reflected on curriculum choice and the implications for institutions, as he commented on the idea that music schools, like schools in other disciplines, must look at their graduates to assess the success of their program. Participant Z commented that when music programs do not value wellbeing, and so place no emphasis on physical activity for their students, the ensuing injuries of graduates reflect poorly on their training. When students’ musical health and wellbeing are excluded entirely from the curriculum, there is little incentive or even time for instructors to engage with the topic, preoccupied as they are with meeting the established goals.

Based on the findings across all three phases of the research, it is evident that by defining goals in terms of repertoire covered, music programs are missing an opportunity to engender a more empowering and transformative learning experience that takes into account the wellbeing of
musicians and their ability to embark on sustainable careers. In addition to a deliberate redefining of curriculum objectives, this type of learning takes time and ongoing mentorship.

7.4.2 Theme 2) Learning is a process

Participants from all phases of the research repeatedly emphasized the idea that learning is a process which takes time. As such, any concepts whose understanding and integration by students is valued must be presented regularly over an extended period of time. While this idea is accepted and adopted in regards to musical concepts, concepts relating to health promotion tend to not benefit from being treated likewise in studio lessons. Health practitioners consistently spoke of the influence that instructors have in shaping their students’ practices and mindsets, through their capacity to continually observe and coach desired behaviours and attitudes over an extended period of time. Similarly, Participant X spoke of the instructor’s role as largely being that of a role model, who conveys the importance of certain ideas and values by regularly returning to those concepts over the course of instruction. Suitably, one of Participant Y’s primary concerns with my proposed topics was to ensure they would afford students the opportunity to try out and experience the ideas being taught, both within the studio setting and afterwards, allowing students the opportunity to experiment with the ideas over time and return with questions and feedback. Indeed, in the final phase of the research, some of the student participants commented on the challenge of trying to adopt and successfully integrate the wide variety of new concepts to which they had been exposed in the relatively short time of the practical exploration study. The student participants nonetheless spoke positively of the Health Promotion Concepts for the increased control, confidence, and knowledge it granted them.

As with other complex concepts and applied skills, ideas of health promotion require time to be understood and adopted in a meaningful way. Students would consequently benefit from repeated instruction in this domain over the course of their studies, with ongoing instructor feedback and guidance. For this to occur, it would not only be necessary that instructors have the appropriate knowledge and skills, but also that these topics be valued through their inclusion in institutional policies/curricula to justify the teaching time spent in this way.
7.4.3 Theme 3) Health promotion education is empowering

One of the primary roles instructors from phase one saw themselves fulfilling was helping their students develop increased independence through fostering relevant skills, knowledge, and self-awareness. The health practitioners of phase two likewise emphasized the importance of students and musicians in general having the necessary knowledge and skills to be able to make informed choices and appropriately take care of themselves. This perspective is well-aligned with the World Health Organization’s Ottawa Charter for Health Promotion, which proclaims health promotion as “the process of enabling people to increase control over, and to improve, their health” (Public Health Agency of Canada, 1986).

Student participants from the third phase of the study reported both directly in interviews, and indirectly through their responses to questionnaires, an increased sense of control, self-sufficiency, and understanding of a variety of topics, including knowledge of supportive resources available to them after participation in the exploratory lessons. Many participants also commented on an increased self-awareness, which empowered them to make wiser choices concerning their wellbeing. These findings attest to the empowering nature of the Health Promotion Concepts, and are reminiscent of writings by Freire (1984):

As [people], simultaneously reflecting on themselves and on the world, increase the scope of their perception, they begin to direct their observations towards previously inconspicuous phenomena… That which had existed objectively but had not been perceived in its deeper implications (if indeed it was perceived at all) begins to ‘stand out,’ assuming the character of a problem and therefore of challenge. Thus, [people] begin to single out elements from their ‘background awarenesses” and to reflect upon them. These elements are now objects of [one’s] consideration, and, as such, objects of their action and cognition. (p. 70)

By deliberately working to increase self-awareness in students and providing them with knowledge, skills, and resources to further their self-investigations and help inform their decision-making, health promotion education holds great potential to comprise a key, empowering component of a music student’s education.
7.5 Recommendations for future research

The Health Promotion Concepts used for this study provide one approach to incorporating health promotion into post-secondary studio lessons. Further research is needed to explore how health promotion can most appropriately be incorporated with different populations, including students of different ages and different instruments. Additionally, larger studies with more participants and multiple lesson instructors are needed to assess feasibility of adoption in real-life contexts. While logistically and ethically more challenging, it would be beneficial to include students who did not volunteer to be involved in a health promotion study, recognizing that working only with students for whom such a topic is of great interest provides a unique experience. There is much merit in discovering how concepts of health promotion can be integrated into lessons with students who are less eager to participate in such activities, to determine if students can nonetheless yield benefit and may shift their views as a result, or if indeed such lessons are limited to a specific population. Involving younger students will likely soften the distinction between students who are interested and those who are not, as their views and values of what comprises worthwhile studio music lessons will be less firmly established early on.

7.6 Recommendations for practice/conclusion

This research yielded significant cause to re-examine the value systems we as music educators are instilling in our students, both through explicit instruction and tacit encouragement. If encouraging healthy and sustainable careers in music is indeed a valuable aim, and health promotion is therefore considered an important part of music education, it is crucial that health-promoting concepts not only be mentioned as important, but are also shown to be so, by being accorded time in the lesson. In order for health promotion to be included in studio lessons, instructors must themselves have the relevant knowledge and the motivation to instruct these topics.

Given the increasing number of musicians’ health and wellbeing courses offered at post-secondary music institutions, the next generation of instructors may inherently be better equipped to instruct health promoting concepts. Even so, the strong tendency for studio instructors to teach according to how they were themselves taught suggests that additional motivating forces, such as changes to the curricula guiding instructors’ teaching, are needed to stimulate real change in this area.
Findings from phase one of this research also suggest that current post-secondary instructors are actively involved in continual learning, and that many instructors are interested in learning more about musicians’ health and wellbeing as opportunities arise. It is in the best interest of current and future students for post-secondary music institutions to make such continuing education opportunities available to faculty wherever possible.

Although many post-secondary music students may be eager to adopt health-promoting practices into their existing musical routines, these practices would be more efficiently incorporated into a musician’s music-making if they were introduced early on in the musician’s studies. While it may be unrealistic to reach all current instructors teaching beginning musicians, post-secondary music schools hold tremendous influence to shape the next generation of teachers by modelling to its current students how health-promoting practices can be an integrated and indeed integral part of learning and making music. Part of this modelling comes in the form of institutional policies that speak to and shape the values of instructors and students. In order for health promotion to be integrated into music education in a meaningful way, it must be viewed as an integral part of a student’s musical education, and therefore included as a key component of curricula or degree requirements. This research suggests that when the skills and knowledge associated with maintaining health and wellbeing come to be valued as much as the repertoire covered, significant personal and musical growth of the musician can result. Shifting curricula and policies to reflect this important priority is a crucial first step.

The current financial challenges facing the arts through cuts to funding, coupled with budget cuts at post-secondary institutions, make it a powerful time to be reassessing the role of the arts in our society and the values we as artists hold most dearly. As we reassess how to move forward to ensure our continued relevance to society, and shape our educational curricula accordingly, let us consider how we can best support our developing musicians to become happy, healthy individuals, empowered to enrich the cultural fabric of our communities.
References


Appendix I: Information and consent letter

Dear student,

August 11, 2016

Introduction
My name is Linnea Thacker and I am a violin performance doctoral student at the University of Toronto, conducting research on the role of pedagogy in playing-related injuries in violinists. I am inviting your participation in my research study entitled: Health Promotion in the Violin Studio. You were selected to participate in this study because of your status as a violin major at [names of targeted institutions]. Your participation is immensely valuable to advancing research on violin pedagogy as it pertains to playing-related injuries.

Data Collection – Your Involvement
• 1-hour initial assessment comprising questionnaires and a playing task (video recorded for external analysis)
• 8 1-hour violin lessons (weekly lessons recommended, can be spread out to accommodate travel plans)
• 1.5-hour final assessment comprising questionnaires, playing task, and an interview. The interview will be audio-recorded and lessons video-recorded for data analysis. (Playing task again video recorded for external analysis.)
• Compensation: 8 free violin lessons, 2 free [transit tickets] per visit, $20 for completion of initial assessment, $40 for completion of final assessment after 8 lessons ($20 for completion of final assessment after minimum 4 lessons)

1) Right of Withdrawal/Refusal:
Your involvement is completely voluntary and you may withdraw at any time, at which point you may request to have any collected data destroyed. You may at any point contact myself, my supervisor Lee Bartel, or the Research Oversight and Compliance Office – Human Research Ethics Program, according to the details below.

2) Risks and Benefits:
The risks of participating in this research will not exceed the risks of daily activities. Your participation will benefit future directions in violin pedagogy, particularly in relation to musicians’ health and injury prevention.

3) Anonymity and Confidentiality:
Data collected through this study will be incorporated into my dissertation as well as other publications and presentations. In all situations in which this research is presented, pseudonyms will be used in order to maintain your confidentiality. Data will not be destroyed, however, any physical data collected will be guarded in a secure, locked private location in my home and all identifiable electronic data will be encrypted and secured in a password-protected server. The study may be reviewed for quality assurance to make sure that the required laws and guidelines are followed. If chosen, (a) representative(s) of the Human Research Ethics Program (HREP) may access study-related data and/or consent materials as part of the review. All information accessed by the HREP will be upheld to the same level of confidentiality that I have indicated.

4) Access to Data:
A summary of results will be provided to you upon request, along with reference information for the dissertation.

Consent to Participate
The study described above has been explained to me and I have had an opportunity to have my questions answered. I understand that the information I provide may be quoted by Linnea Thacker in academic and professional presentations or publications, but that my identity, or that of anyone I refer to, will remain anonymous and confidential. I consent to Linnea audio and video recording as indicated above. I understand I am free to withdraw from this study at any time. I hereby agree to participate, acknowledging that I have not been ordered by a health professional to observe complete rest from violin playing, and allow information I provide to be used in this research study.

___________________  _____________________  __________
Printed Name        Signature            Date

Researcher          Faculty Supervisor         Human Research Ethics Program
Linnea Thacker      Lee Bartel               University of Toronto
[phone number]      [phone number]           [phone number]
[email address]     [email address]           [email address]
Appendix II: Researcher-developed questionnaire

Thank you for your participation in this study. The responses you provide will be used for research purposes and will be kept confidential. If you have any questions, you may ask the researcher (Linnea Thacker) at any time. Please feel free to use the back of the questionnaire for additional space. Thank you!

Age:______  Gender:____________  Years of violin study: _____________

If you currently play any other instruments, please list them specifying how often you play each instrument:

____________________________________________________________________________

The following questions relate to your violin practice habits and knowledge.

Please complete the following statements relating to your personal/individual practice.

1. In a typical week, I practise ____ days.
2. In a typical week, the longest I practise on any given day is ____ hours.
3. In a typical week, the shortest I practise on any given day is ____ hours. (please include only the days you practise, e.g. not 0 hrs)
4. On an average day, I practise ____ hours.

Please circle the answer that best represents you. For questions 5-9, if you answer “1 never” for part (a.), feel free to skip part (b.) of that question.

5. I take breaks when I practise:
   a. 1 never 2 rarely 3 sometimes 4 almost always 5 always
   b. When I take breaks, I typically take a ____ minute break after practising for ____ minutes.

6. I warm up physically (e.g. away from the instrument) before playing:
   a. 1 never 2 rarely 3 sometimes 4 almost always 5 always
   b. My physical warm-up typically lasts ___ minutes, and consists of ________________________________

7. I warm up musically (e.g. with the instrument) before playing:
   a. 1 never 2 rarely 3 sometimes 4 almost always 5 always
   b. My musical warm-up typically lasts ___ minutes and consists of ________________________________

8. I cool down musically (e.g. with the instrument) after playing:
   a. 1 never 2 rarely 3 sometimes 4 almost always 5 always
   b. My musical cool-down typically lasts ___ minutes and consists of ________________________________

9. I cool down physically (e.g. away from the instrument) after playing:
   a. 1 never 2 rarely 3 sometimes 4 almost always 5 always
   b. My physical cool-down typically lasts ___ minutes and consists of ________________________________
Researcher-Developed Violin Student Questionnaire

10. To what extent do you feel you are aware of tension or unnecessary/excess effort during your playing?
   a. 1 not at all aware 2 minimally aware 3 somewhat aware 4 fairly aware 5 exceptionally aware
   b. To what extent do you feel this awareness would be/is helpful?
      1 not at all helpful 2 minimally helpful 3 somewhat helpful 4 fairly helpful 5 exceptionally helpful

11. To what extent are you familiar with the anatomy of the human body as it is associated with playing violin (e.g. know the anatomical structures involved and how they work)?
   a. 1 not at all familiar 2 minimally familiar 3 somewhat familiar 4 fairly familiar 5 exceptionally familiar
   b. To what extent do you feel this knowledge would be/is helpful?
      1 not at all helpful 2 minimally helpful 3 somewhat helpful 4 fairly helpful 5 exceptionally helpful

12. To what extent do you feel you are knowledgeable about effective practising techniques?
   a. 1 not at all knowledgeable 2 minimally knowledgeable 3 somewhat knowledgeable 4 fairly knowledgeable 5 exceptionally knowledgeable
   b. To what extent do you feel this knowledge would be/is helpful?
      1 not at all helpful 2 minimally helpful 3 somewhat helpful 4 fairly helpful 5 exceptionally helpful

13. To what extent do you feel you are mentally present during your practice sessions?
   a. 1 not at all present 2 minimally present 3 somewhat present 4 fairly present 5 exceptionally present
   b. To what extent do you feel being mentally present would be/is helpful?
      1 not at all helpful 2 minimally helpful 3 somewhat helpful 4 fairly helpful 5 exceptionally helpful

   The following questions relate to playing-related pain/problems.
   Playing-related musculoskeletal disorders (PRMDs) are defined as “pain, weakness, lack of control, numbness, tingling, or other symptoms that interfere with [the musician’s] ability to play [their] instrument at the level [they] are accustomed to” (Zaza, 1995, p. 93).

Please circle the appropriate answer.

14. Have you ever experienced playing-related pain or problems (as described above) that interfered with your ability to play your instrument at the level you are accustomed to?
    Yes  No  (if No, please skip to question 21)

15. Have you experienced such playing-related pain or problems within the past 4 weeks?
    Yes  No

16. To what extent do/did you feel confident you knew how to address the pain/problem?
    1 not at all confident 2 minimally confident 3 somewhat confident 4 fairly confident 5 exceptionally confident
17. On the following horizontal line, please indicate with a vertical mark (e.g. |) the places that represent the most severe and least severe pain/problems you have experienced within the past 4 weeks. Additionally, please indicate with an x the place that represents the typical pain/problems you have experienced within the past 4 weeks.

no pain          worst possible pain

18. On the following horizontal line, please indicate with an x the place that represents your current pain/problems.

no pain          worst possible pain

19. What do you do when you experience pain/problems while practising?

_____________________________________________________________________

20. Have you sought treatment or changed the way you practise as a result of your pain/problems?
   a. Yes    No
   b. If yes, how? ______________________________________________________

The following questions relate to general playing-related challenges/obstacles.

21. Are there other physical, psychological, or knowledge-based challenges/obstacles that you feel are impeding your ability to become the violinist you would like to be? If you feel comfortable sharing them here, please list them below. You may elaborate on them to the extent that you are comfortable. (Turn over the page if you require more space.)

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

22. To what extent do you feel these challenges/obstacles are impeding your ability to become the violinist you would like to be? (Please answer separately for each challenge/obstacle you listed.)
   a. Challenge/obstacle: ________________________________________________
      1 not at all impeding  2 minimally impeding  3 somewhat impeding  4 fairly impeding  5 exceptionally impeding
   b. Challenge/obstacle: ________________________________________________
      1 not at all impeding  2 minimally impeding  3 somewhat impeding  4 fairly impeding  5 exceptionally impeding
   c. Challenge/obstacle: ________________________________________________
      1 not at all impeding  2 minimally impeding  3 somewhat impeding  4 fairly impeding  5 exceptionally impeding

You have completed this questionnaire. Thank you for your participation!
Appendix III: Resources for student participants

Linnea Thacker, 2017
DMA Dissertation

Resources for Student Participants

Anatomy resource:
Anatomy.tv
• great online resource for visual representations of the structures of the body
• can be accessed by searching for “anatomy.tv” in [university] library search
• link: [university link]

Books/authors I may have mentioned:
• very basic look at some general anatomy (lots of illustrations)

• detailed exploration of body mapping as it relates to violin

• Jennie Morton is a performer (singer, dancer, etc.) and osteopath

Movements for before/after playing:
• choose movements that feel good and you are comfortable practising on your own
• current literature suggests that active movements are more beneficial than stretches before playing (stretches are best reserved for after playing)

Basic movements (can be practised before or after playing):
• Rolling down and up the spine, twisting side to side, circling shoulders (or doing figure 8s)
• Imagery-guided movements (from presenter at ISME conference):
  • reaching wide like a star, curling up in a ball (movement can be fast or slow)
  • imagining the head filling with helium and the sense of lightness that provides, then imagining the helium leaving the head, being replaced by sand, dropping the head and perhaps rolling it slightly side to side, then imagining the sand pouring out and helium once again filling the space
  • moving the spine thinking of imitating the movements of a snake
• Movement sequence recommended by physiotherapist at the National Ballet School (approx.):
  • all movements are gentle and continuous, not straining to reach end range of movement
  • in one slow, continuous motion, turn head towards the left, back to centre, towards the right, back to the centre, up to the left (corner), down to the right (corner), up to the right (corner), down to the left (corner). Reverse: turn head to right, to centre, to left, to centre, down and to the right, up and to the left, down and to the left, up and to the right.
Movements suitable for after playing:

**Lying on the floor, arm/shoulder/spine movement:**
- Lie on your side with knees toward chest (fetal position – may try thighs at 90-degree angle with torso), knees stacked on top of each other
- Throughout the movement, the head, legs, and ribs remain heavy, resting on the ground (or a blanket/pillow for head if more comfortable)
- Start laying on your side with arms out in front of you, stacked one on top of the other
  1. Tracing top arm over bottom arm and then collarbones, unfold onto ground, stay in twist for a breath or two if comfortable; reverse direction (fold arm, fingers come to shoulder, trace collarbones, other arm. Repeat a few times.
  2. Tracing arc in sky (as if finger tips were dipped in paint and were painting a rainbow through the air), come into twist; reverse direction. Repeat a few times.
  3. Tracing circle with fingers on the floor around you – both directions
     a. You may trace complete circles, or focus your time on the area above your head
     b. If there is an area that feels tight, you might take an extra breath there
- Head is heavy, rolls as you move; legs are heavy; notice your breathing; you may want to take some time in a symmetrical position (e.g. lying on your back) before switching sides

**Standing arm movements:**
- Clasping hands in front of your body, draw hands up, push them out in front, bring them up overhead, unclasp fingers, might keep fingertips pointing upward, arms come out to side, clasp hands behind you, come into mini backbend (can draw shoulder blades together), start rolling down the spine (beginning with nodding head to chest), draw arms overhead as you bend/roll forward (bending your knees for comfort), plant feet, unroll up, taking as many breaths as you need to come back up

**Hands on the wall:**
- Place hands on the wall, spreading the fingers and feeling the full handprint press into the wall
- Walk your feet back to where is comfortable, or until you can create approximately a 90-degree angle between your upper body and legs, allowing your hands to slide down the wall as necessary
- Bend your knees as much as is comfortable
- You might wish to shake your head gently while you continue to reach into the full handprint on the wall, noticing how your spine feels, noticing your breath, etc.
Appendix IV: Lesson summaries

Participant 1 Lesson Summary

Physical warm-up:
• goal: physically warm up the body – increase blood flow to the muscles and brain (increase alertness)
  • stretching is better reserved for after playing – recent research suggests it may be counterproductive before playing
• examples: running up and down stairs, running on the spot (also running around the block)

Musical warm-up:
• goal: notice how the body feels, how you sound, if there are areas of the body that are doing more work than necessary, prepare the body and mind for the tasks of playing
• examples: open strings, scales (including martelé), etc.

Cool-down:
• goal: counterbalance some of the effects of playing
• examples: rolling down and up the spine; twisting side to side, letting the arms swing; circling the shoulders; lying on the floor, coming from fetal position to a twist; pressing handprint into wall, coming into rotated ‘L’ shape (see resources for descriptions of many of the above)

Practice strategies:
• practice log: can write down tasks/goals for next practice (e.g. bar numbers, what you want to improve)
  • particularly useful after running through a piece – make a list so next practice you can go straight to the problem spots
  • goals should be specific, measurable, and realistic (attainable)
• practising mentally (away from the instrument) can be tremendously helpful, both for technical as well as musical challenges – includes listening to pieces, studying the score, planning your practice, etc.
  • practising singing a passage (out loud or in your mind) can help identify if your internal representation is clear – you can work on solidifying the internal representation without your instrument (e.g. for intonation, phrasing, approach to chords, rhythm, etc.)
• simply repeating the same task over and over with no break from it tends to produce less effective learning than if you leave the task and come back to it multiple times
  • switching up repertoire frequently over the course of your practice session can also help vary the physical demands you are placing on your body
• when practising slowly, try to create a version that does not introduce unnecessary extra movements or unnecessary tension and fear

Thoughts on anatomy/body awareness:
• we may try to stack the bones more efficiently/bring ourselves into better alignment in order to put less demand on muscles. These muscles are then freer to engage in initiating movements required for playing.
• generally, in order to create freedom and mobility, we need stability – e.g. grounding/settling/resting the lower body for mobility in the upper body
• the skull balances on top of the spine – where the skull meets the spine, the joint produces a small nodding motion
  • for many of us, we tend to position the head off balance, requiring greater muscular effort; we also may clamp down through the head/neck/jaw
  • we can try using rests or moments without shifts to try briefly lifting the head off the instrument
• often the skull will be off balance if there is a shift lower in the body (e.g. the pelvis is shifted forward) – generally, people talk of aiming for ear over shoulder over hip joint over knee over ankle
  • the goal is not to maintain a rigid posture, but find an alignment that facilitates coordinated movement
  • movement of the arm can be traced to the collarbone and shoulder blade – trying to limit movement in these areas can cause excess tension and rigidity
  • the forearm has two bones: the ulna on the pinky side, and the radius (which rotates around the ulna) on the thumb side
    • maintaining the pinky side of the hand in alignment with the ulna can increase strength and stability, especially in the pinky
    • excessive tension in the hand can limit the hand span – trying to find the easiest, least effortful arrangement for the hand may help with reaching notes
• movement naturally occurs throughout the body as a result of breathing – the inhalation tends to be more active (the diaphragm contracts), while the exhalation is more passive (the diaphragm relaxes)
    • the curves of the spine tend to become more pronounced on the inhalation, and soften on the exhalation – e.g. the spine gathers on the inhalation and lengthens on the exhalation
• we can use video, photos, mirrors, reflective surfaces, etc. to identify if we are making additional movements that are counterproductive to our musical aims
  • we may also try placing the scroll of the violin against a wall while we play to highlight extra movements (and also feel the freedom of the violin being more supported)

**Mindfulness:**
• can choose a different focus: the breath (sensations/movements associated with it, its rhythm, etc.); feeling the body’s contact with the ground/chair, etc.; can combine the two (breathe in, feel contact; breathe out, settle/release/let go more)
• notice when a thought comes up, acknowledge it, and gently bring the mind back to your focus (e.g. the breathing)
• 1-2 mins can be useful to give yourself a moment to transition into a new environment/new task
• may be standing, sitting, lying down
Participant 2 Lesson Summary

Physical warm-up:
• goal: physically warm up the body – increase blood flow to the muscles and brain (increase alertness)
  • stretching is better reserved for after playing – recent research suggests it may be counterproductive before playing
• examples: running up and down stairs, running on the spot (also running around the block)

Musical warm-up:
• goal: notice how the body feels, how you sound, if there are areas of the body that are doing more work than necessary, prepare the body and mind for the tasks of playing
• examples: open strings, scales (including martelé), etc.

Cool-down:
• goal: counterbalance some of the effects of playing
• examples: rolling down and up the spine; twisting side to side, letting the arms swing; circling the shoulders; lying on the floor, coming from fetal position to a twist; pressing handprint into wall, coming into rotated ‘L’ shape (see resources for descriptions of many of the above)

Practice strategies:
• practice log: can write down tasks/goals for next practice (e.g. bar numbers, what you want to improve)
  • particularly useful after running through a piece – make a list so next practice you can go straight to the problem spots
  • goals should be specific, measurable, and realistic (attainable)
• practising mentally (away from the instrument) can be tremendously helpful, both for technical as well as musical challenges
  • when you imagine yourself playing, it helps to be as detailed in your visualization as possible (what do I hear, what do I feel, what do I see, etc.)
  • practising singing a passage (out loud or in your mind) can help identify if your internal representation is clear – you can work on solidifying the internal representation without your instrument (e.g. for intonation, phrasing, etc.)
• when practising slowly, try to create a version that does not introduce unnecessary extra movements or unnecessary tension and fear
• notice self-talk: curb negative self-talk and reframe it positively
• if trying to approach a problem from a very technical perspective (e.g. analysing bow speed, finger angle, etc.) is not proving helpful, it might be useful to switch approaches and address the problem from a musical perspective (e.g. big picture: what do I want it to sound like – you can imagine yourself playing it the way you want it to sound before returning to the instrument)
  • we can change our physical approach, or our mental approach (e.g. what we are listening for)
Thoughts on anatomy/body awareness:
• we may try to stack the bones more efficiently/bring ourselves into better alignment in order to put less demand on muscles. These muscles are then freer to engage in initiating movements required for playing.
• generally, in order to create freedom and mobility, we need stability – e.g. grounding/settling/resting the lower body for mobility in the upper body
• the skull balances on top of the spine – where the skull meets the spine, the joint produces a small nodding motion
  • for many of us, we tend to position the head off balance, requiring greater muscular effort; we also may clamp down through the head/neck/jaw
  • we can try using rests or moments without shifts to try briefly lifting the head off the instrument
• the goal is not to maintain a rigid posture, but find an alignment that facilitates coordinated movement
• movement of the arm can be traced to the collarbone and shoulder blade – trying to limit movement in these areas can cause excess tension and rigidity
• movement naturally occurs throughout the body as a result of breathing – the inhalation tends to be more active (the diaphragm contracts), while the exhalation is more passive (the diaphragm relaxes)
  • the curves of the spine tend to become more pronounced on the inhalation, and soften on the exhalation – e.g. the spine gathers on the inhalation and lengthens on the exhalation
• we can use video, photos, mirrors, reflective surfaces, etc. to identify if we are making additional movements that are counterproductive to our musical aims
  • e.g. are we flinching or looking away from the instrument when we play a chord?

Mindfulness:
• can choose a different focus: the breath (sensations associated with it, its rhythm, etc.); feeling the body’s contact with the ground/chair, etc.; can combine the two (breathe in, feel contact; breathe out, settle/release/let go more)
• notice when a thought comes up, acknowledge it, and gently bring the mind back to your focus (e.g. the breathing)
• 1-2 mins can be useful to give yourself a moment to transition into a new environment/new task
• may be standing, sitting, lying down
**Participant 3 Lesson Summary**

**Physical warm-up:**
- goal: physically warm up the body – increase blood flow to the muscles and brain (increase alertness)
  - stretching is better reserved for after playing – recent research suggests it may be counterproductive before playing
- examples: running up and down stairs, running on the spot (also running around the block)

**Musical warm-up:**
- goal: notice how the body feels, how you sound, if there are areas of the body that are doing more work than necessary, prepare the body and mind for the tasks of playing
- examples: open strings, scales, etc.

**Cool-down:**
- goal: counterbalance some of the effects of playing
- examples: rolling down and up the spine; twisting side to side, letting the arms swing or placing the hands on the shoulders; circling the shoulders; lying on the floor, coming from fetal position to a twist; standing, taking the arms in different directions; (see resources for descriptions of many of the above)

**Practice strategies:**
- entering each practice session with a plan can help increase efficiency
- practising singing a passage can help identify if your internal representation is clear – you can work on solidifying the internal representation without your instrument (e.g. for phrasing, intonation, rhythm, etc.) (mental practice)
- if trying to approach a problem from a very technical perspective (e.g. analysing bow speed, finger angle, etc.) is not proving helpful, it might be useful to switch approaches and address the problem from a musical perspective (e.g. big picture: what do I want it to sound like – you can imagine yourself playing it the way you want it to sound before returning to the instrument)
- notice self-talk: curb negative self-talk and reframe it positively
- sleep is an important part of learning and healing

**Thoughts on anatomy/body awareness:**
- we may try to stack the bones more efficiently/bring ourselves into better alignment in order to put less demand on muscles. These muscles are then freer to engage in initiating movements required for playing.
- generally, in order to create freedom and mobility, we need stability – e.g. grounding/settling/resting the lower body for mobility in the upper body
- the skull balances on top of the spine – where the skull meets the spine, the joint produces a small nodding motion
  - for many of us, we tend to position the head off balance, requiring greater muscular effort; we also may clamp down through the head/neck/jaw
  - we can try using rests or moments without shifts to try briefly lifting the head off the instrument
• often the skull will be off balance if there is a shift lower in the body (e.g. the pelvis is shifted forward) – generally, people talk of aiming for ear over shoulder over hip joint over knee over ankle
  • the goal is not to maintain a rigid posture, but find an alignment that facilitates coordinated movement
• movement of the arm can be traced to the collarbone and shoulder blade – trying to limit movement in these areas can cause excess tension and rigidity
• movement naturally occurs throughout the body as a result of breathing – the inhalation tends to be more active (the diaphragm contracts), while the exhalation is more passive (the diaphragm relaxes)
  • the curves of the spine tend to become more pronounced on the inhalation, and soften on the exhalation – e.g. the spine gathers on the inhalation and lengthens on the exhalation
• we can use video, photos, mirrors, reflective surfaces, etc. to identify if we are making additional movements that are counterproductive to our musical aims
  • we may also try placing the scroll of the violin against a wall while we play to highlight extra movements (and also feel the freedom of the violin being more supported)
• if trying to shift a habit (e.g. how we rest the head on the violin), we can try approaching it differently (e.g. bring the violin down from overhead, gently nod the head onto the violin)

**Mindfulness:**
• can choose a different focus: the breath (sensations associated with it, its rhythm, etc.); feeling the body’s contact with the ground/chair, etc.; can combine the two (breathe in, feel contact; breathe out, settle/release/let go more)
• notice when a thought comes up, acknowledge it, and gently bring the mind back to your focus (e.g. the breathing)
• 1-2 mins can be useful to give yourself a moment to transition into a new environment/new task
• may be standing, sitting, lying down
Physical warm-up:
• goal: physically warm up the body – increase blood flow to the muscles and brain (increase alertness)
  • stretching is better reserved for after playing – recent research suggests it may be counterproductive before playing
  • examples: running up and down stairs, running on the spot (also running around the block)

Musical warm-up:
• goal: notice how the body feels, how you sound, if there are areas of the body that are doing more work than necessary, prepare the body and mind for the tasks of playing
  • examples: open strings, scales, etc.

Cool-down:
• goal: counterbalance some of the effects of playing
  • examples: rolling down and up the spine; twisting side to side, letting the arms swing or placing the hands on the shoulders; circling the shoulders; lying on the floor, coming from fetal position to a twist; standing, taking the arms in different directions; pressing handprint into wall, coming into rotated ‘L’ shape (see resources for descriptions of many of the above)

Practice strategies:
• entering each practice session with some kind of plan can help increase efficiency
• practising mentally (away from the instrument) can be tremendously helpful
• practising singing a passage can help identify if your internal representation is clear – you can work on solidifying the internal representation without your instrument (e.g. for intonation, phrasing, etc.) – this is also useful for figuring out challenging rhythms
• when trying to build confidence for a performance, can imagine performing it (create a detailed image/story of what it feels like, sounds like, etc.)
  • also notice self-talk: curb negative self-talk and reframe it positively
• for a large shift, it may be useful to practise shifting to the note a semitone above and a semitone below your desired goal note – this may help the brain to better differentiate the goal
• take breaks as needed physically and mentally
  • sleep is an important part of learning and healing

Thoughts on anatomy/body awareness:
• we may try to stack the bones more efficiently/bring ourselves into better alignment in order to put less demand on muscles. These muscles are then freer to engage in initiating movements required for playing.
• generally, in order to create freedom and mobility, we need stability – e.g. grounding/settling/resting the lower body for mobility in the upper body
• the skull balances on top of the spine – where the skull meets the spine, the joint produces a small nodding motion
  • for many of us, we tend to position the head off balance, requiring greater muscular effort; we also may clamp down through the head/neck/jaw
• we can try using rests or moments without shifts to try briefly lifting the head off the instrument
• often the skull will be off balance if there is a shift lower in the body (e.g. the pelvis is shifted forward) – generally, people talk of aiming for ear over shoulder over hip joint over knee over ankle
  • the goal is not to maintain a rigid posture, but find an alignment that facilitates coordinated movement
• movement of the arm can be traced to the collarbone and shoulder blade – trying to limit movement in these areas can cause excess tension and rigidity
• the forearm has two bones: the ulna on the pinky side, and the radius (which rotates around the ulna) on the thumb side
  • maintaining the pinky side of the hand in alignment with the ulna can increase strength and stability, especially in the pinky
• movement naturally occurs throughout the body as a result of breathing – the inhalation tends to be more active (the diaphragm contracts), while the exhalation is more passive (the diaphragm relaxes)
  • the curves of the spine tend to become more pronounced on the inhalation, and soften on the exhalation – e.g. the spine gathers on the inhalation and lengthens on the exhalation
• we can use video, photos, mirrors, reflective surfaces, etc. to identify if we are making additional movements that are counterproductive to our musical aims
  • we may also try placing the scroll of the violin against a wall while we play to highlight extra movements (and also feel the freedom of the violin being more supported)
• if trying to shift a habit (e.g. how we rest the head on the violin), we can try approaching it differently (e.g. bring the violin down from overhead, gently nod the head onto the violin)

Mindfulness:
• can choose a different focus: the breath (sensations associated with it, its rhythm, etc.); feeling the body’s contact with the ground/chair, etc.; can combine the two (breathe in, feel contact; breathe out, settle/release/let go more)
• notice when a thought comes up, acknowledge it, and gently bring the mind back to your focus (e.g. the breathing)
• 1-2 mins can be useful to give yourself a moment to transition into a new environment/new task
• may be standing, sitting, lying down
**Participant 5 Lesson Summary**

**Physical warm-up:**
- goal: physically warm up the body – increase blood flow to the muscles and brain (increase alertness)
  - stretching is better reserved for after playing – recent research suggests it may be counterproductive before playing
  - examples: running up and down stairs, running on the spot (also running around the block)

**Musical warm-up:**
- goal: notice how the body feels, how you sound, if there are areas of the body that are doing more work than necessary, prepare the body and mind for the tasks of playing
  - examples: open strings, scales, etc.

**Cool-down:**
- goal: counterbalance some of the effects of playing
  - examples: rolling down and up the spine; twisting side to side, letting the arms swing or placing the hands on the shoulders; circling the shoulders; lying on the floor, coming from fetal position to a twist; standing, taking the arms in different directions; pressing handprint into wall, coming into rotated ‘L.’ shape (see resources for descriptions of many of the above)

**Practice strategies:**
- practice log: can write down tasks/goals for next practice (e.g. bar numbers, what you want to improve)
  - particularly useful after running through a piece – make a list so next practice you can go straight to the problem spots
  - goals should be specific, measurable, and realistic (attainable)
- practising mentally (away from the instrument) can be tremendously helpful
- practising singing a passage can help identify if your internal representation is clear – you can work on solidifying the internal representation without your instrument (e.g. for intonation, phrasing, etc.)
- simply repeating the same task over and over with no break from it tends to produce less effective learning than if you leave the task and come back to it multiple times
  - learning is a process and takes time and repeated exposures to the task – maintaining patience with ourselves through this process can help increase positive experiences
  - sleep is typically an important part of the learning process (and healing process…)
- if trying to approach a problem from a very technical perspective (e.g. analysing bow speed, finger angle, etc.) is not proving helpful, it might be useful to switch approaches and address the problem from a musical perspective (e.g. big picture: what do I want it to sound like – you can imagine yourself playing it the way you want it to sound before returning to the instrument)

**Thoughts on anatomy/body awareness:**
- we may try to stack the bones more efficiently/bring ourselves into better alignment in order to put less demand on muscles. These muscles are then freer to engage in initiating movements required for playing.
• generally, in order to create freedom and mobility, we need stability – e.g.
grounding/settling/resting the lower body for mobility in the upper body
• the skull balances on top of the spine – where the skull meets the spine, the joint produces a
small nodding motion
  • for many of us, we tend to position the head off balance, requiring greater muscular
effort; we also may clamp down through the head/neck/jaw
  • we can try using rests or moments without shifts to try briefly lifting the head off the
instrument
• the goal is not to maintain a rigid posture, but find an alignment that facilitates coordinated
movement
• movement of the arm can be traced to the collarbone and shoulder blade – trying to limit
movement in these areas can cause excess tension and rigidity
• the forearm has two bones: the ulna on the pinky side, and the radius (which rotates around the
ulna) on the thumb side
  • maintaining the pinky side of the hand in alignment with the ulna can increase strength
and stability, especially in the pinky
• movement naturally occurs throughout the body as a result of breathing – the inhalation tends
to be more active (the diaphragm contracts), while the exhalation is more passive (the diaphragm
relaxes)
  • the curves of the spine tend to become more pronounced on the inhalation, and soften
on the exhalation – e.g. the spine gathers on the inhalation and lengthens on the exhalation
• we can use video, photos, mirrors, reflective surfaces, etc. to identify if we are making
additional movements that are counterproductive to our musical aims
  • we may also try placing the scroll of the violin against a wall while we play to highlight
extra movements (and also feel the freedom of the violin being more supported)
• if trying to shift a habit (e.g. how we rest the head on the violin), we can try approaching it
differently (e.g. bring the violin down from overhead, gently nod the head onto the violin)

**Mindfulness:**
• can choose a different focus: the breath (sensations associated with it, its rhythm, etc.); feeling
the body’s contact with the ground/chair, etc.; can combine the two (breathe in, feel contact;
breathe out, settle/release/let go more)
• notice when a thought comes up, acknowledge it, and gently bring the mind back to your focus
(e.g. the breathing)
• 1-2 mins can be useful to give yourself a moment to transition into a new environment/new task
• may be standing, sitting, lying down
Physical warm-up:
• goal: physically warm up the body – increase blood flow to the muscles and brain (increase alertness)
  • stretching is better reserved for after playing – recent research suggests it may be counterproductive before playing
  • examples: running up and down stairs, running on the spot (also running around the block)

Musical warm-up:
• goal: notice how the body feels, how you sound, if there are areas of the body that are doing more work than necessary, prepare the body and mind for the tasks of playing
  • examples: open strings, scales (slurred, martelé), etc.

Cool-down:
• goal: counterbalance some of the effects of playing
  • examples: rolling down and up the spine; twisting side to side, letting the arms swing; circling the shoulders; lying on the floor, coming from fetal position to a twist; standing, taking the arms in different directions; pressing handprint into wall, coming into rotated ‘L’ shape (see resources for descriptions of many of the above)

Practice strategies:
• write down tasks for next practice (e.g. bar numbers and what you want to improve)
  • particularly useful after running through a piece – make a list so next practice you can go straight to the problem spots
• when practising slowly, try to create a version that does not introduce unnecessary extra movements or unnecessary tension and fear
• practising mentally (away from the instrument) can be tremendously helpful
• practising singing a passage can help identify if your internal representation is clear – you can work on solidifying the internal representation without your instrument (e.g. for intonation, phrasing, etc.)
• simply repeating the same task over and over with no break from it tends to produce less effective learning than if you leave the task and come back to it multiple times
• being very specific about where exactly the problem lies (e.g. between which two notes) can increase efficiency
• for a large shift, it may be useful to practise shifting to the note a semitone above and a semitone below your desired goal note – this may help the brain to better differentiate the goal

Thoughts on anatomy/body awareness:
• we may try to stack the bones more efficiently/bring ourselves into better alignment in order to put less demand on muscles. These muscles are then freer to engage in initiating movements required for playing.
• generally, in order to create freedom and mobility, we need stability – e.g. grounding/settling/resting the lower body for mobility in the upper body
• the skull balances on top of the spine – where the skull meets the spine, the joint produces a small nodding motion
• for many of us, we tend to position the head off balance, requiring greater muscular effort; we also may clamp down through the head/neck/jaw
• we can try using rests or moments without shifts to try briefly lifting the head off the instrument
• often the skull will be off balance if there is a shift lower in the body (e.g. the pelvis is shifted forward) – generally, people talk of aiming for ear over shoulder over hip joint over knee over ankle
  • the goal is not to maintain a rigid posture, but find an alignment that facilitates coordinated movement
• movement of the arm can be traced to the collarbone and shoulder blade – trying to limit movement in these areas can cause excess tension and rigidity
• we can use video, photos, mirrors, reflective surfaces, etc. to identify if we are making additional movements that are counterproductive to our musical aims
  • we may also try placing the scroll of the violin against a wall while we play to highlight extra movements (and also feel the freedom of the violin being more supported)
• if trying to shift a habit (e.g. how we rest the head on the violin), can try approaching it differently (e.g. bring the violin down from overhead, gently nod the head onto the violin)

**Mindfulness:**
• can choose a different focus: the breath (sensations associated with it, its rhythm, etc.); feeling the body’s contacts with the ground/chair, etc.; can combine the two (breathe in, feel contact; breathe out, settle more)
• notice when a thought comes up, acknowledge it, and gently bring the mind back to your focus (e.g. the breathing)
• 1-2 mins can be useful to give yourself a moment to transition into new environment/new task