Master Thesis

Investigating the contributing factors to resilience in coping with adversity:

A qualitative exploratory study of professional musicians in the context of COVID-19

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Abstract

Resilience is recognized as an essential factor in an individual's ability to bounce back from adverse situations, but what is resilience comprised of, and how does resilience function within a sample of professional musicians in the context of COVID-19? The research undertaken in this qualitative study involving a thematic content analysis of in-depth interviews seeks to investigate the contributing factors to resilience: the personality, situational and social factors that are most effective in supporting and increasing resilience within a sample of professional musicians. Because resilience can only be observed in adverse situations, the research further questions what the perceived major stressors in the lives of musicians are, and how these stressors are affected during the COVID-19 pandemic. Eleven professional classical musicians were selected for in-depth interviews identifying contributors to resilience, musicians' stressors, and the specific effects of COVID-19 on their professional lives. It was found that personality factors, and in particular emotional awareness/emotional regulation, flexibility, cognitive focus and gratitude, were important contributors to resilience, along with strong social supports from colleagues, family and friends, and external factors such as luck and support from non-employment agencies/organizations. Musicians' stressors were primarily internal stressors (i.e. perfectionism, high standards, and performance anxiety). Musicians expressed both difficulties, and, surprisingly, benefits and opportunities for growth in the COVID-19 pandemic.

Keywords: *Resilience, Musicians' health, Musicians' stressors, COVID-19 pandemic*

Resilienz wird als wesentlicher Faktor für die Fähigkeit eines Individuums angesehen, sich von widrigen Situationen zu erholen. Woraus besteht Resilienz und wie funktioniert Resilienz in einer Stichprobe professioneller Musiker im Kontext von COVID-19? Die in dieser qualitativen Studie durchgeführte Forschung, die eine thematische Inhaltsanalyse von ausführlichen Interviews umfasst, zielen darauf ab, die Faktoren zu untersuchen, die zur Resilienz beitragen: Die Persönlichkeits-, Situations- und Sozialfaktoren, die am effektivsten sind, um Resilienz innerhalb einer Stichprobe professioneller Musiker zu unterstützen und zu erhöhen. Da Resilienz nur in widrigen Situationen beobachtet werden kann, werden in der Forschung weitere Fragen gestellt: nämlich was die Hauptstressoren im Leben von Musikern sind und wie diese Stressoren während der COVID-19-Pandemie beeinflusst werden. Elf professionelle klassische Musiker wurden für ausführliche Interviews ausgewählt, in denen die Resilienz, die Stressfaktoren der Musiker und die spezifischen Auswirkungen von COVID-19 auf das Berufsleben der Musiker ermittelt wurden. Es wurde festgestellt, dass Persönlichkeitsfaktoren und insbesondere emotionales Bewusstsein / emotionale Regulierung, Flexibilität, kognitiver Fokus und Dankbarkeit wichtige Beiträge zur Resilienz leisten, zusammen mit einer starken sozialen Unterstützung durch Kollegen, Familie und Freunde sowie externen Faktoren wie Glück und Unterstützung durch Nichtbeschäftigungsagenturen / -organisationen. Die Stressoren der Musiker waren hauptsächlich interne Stressoren (z.B. Perfektionismus, hohe Standards und Leistungsangst). Musiker äußerten sowohl Schwierigkeiten wie auch - überraschenderweise - Vorteile und Wachstumschancen im Zuge der COVID-19-Pandemie.

Schlagwörter: *Resilienz, Musikergesundheit, Musikerstressoren, COVID-19-Pandemie*

Table of Contents

Abbreviations ***1***

Table of Figures ***2***

1 Introduction ***3***

1.1 Leading questions **4**

1.2. Resilience among classical musicians in the context of COVID-19 .... **5**

1.3 Overview of the structure of the thesis. **6**

2 Theoretical Background ***7***

2.1 Resilience **7**

2.1.1 Definitions of resilience 8

2.1.2 Factors influencing resilience 12

2.1.3 The role of resilience in the process of positive adaptation to stressors 14

2.2 Stress and adversity **14**

2.2.1 Definitions of stress 15

2.2.2 Theories of stress 15

2.2.3 Effects of stress 17

2.2.4 Coping mechanisms for stress 20

2.3 The profession of a classical musician **21**

2.3.1 Physical stressors of the classical musician 23

2.3.2 Psychological stressors of the classical musician 24

2.3.3 Social-Occupational stressors of the classical musician 26

2.3.4 Stoicism and reluctance to disclose in classical musicians' cultures 27

2.3.5 Resilience in classical musicians and its effects on stress or adversity mediation 28

3 Method ***30***

3.1 Overview of the study design **30**

3.2 The semi-structured qualitative interview **30**

3.3 Search strategy, inclusion or exclusion criteria **32**

3.4 Process of interviewing **33**

3.5 Thematic Qualitative Content Analysis 33

3.6 Procedure of qualitative content analysis 35

4 Findings 36

4.1 Quantitative and demographic information 36

4.2 Contributors to Resilience 39

4.2.1 Personality Factors....40

4.2.2 Social Support 48

4.2.3 External supports 52

4.3 Musicians' stressors 56

4.3.1 Internal stressors 56

4.3.2 Excessive work / problems with work-life balance 58

4.3.3 Financial stressors 59

4.3.4 Difficulties with colleagues 60

4.3.5 Other stressors 61

4.4 Findings related specifically to COVID-19 61

4.4.1 Difficulties arising from COVID-19 61

4.4.2 Benefits of COVID-19 66

4.4.3 Novel solutions to problems presented by COVID-19 69

5. Discussion 71

5.1 Contributors to Resilience 71

5.1.1 Personality factors 71

5.1.2 Social support 74

5.1.3 External factors 74

5.2 Musicians stressors 75

5.2.1 Internal stressors 75

5.2.2 Excessive work / problems with work-life balance 76

5.2.3 Financial stressors 76

5.3 COVID-19 and its impact on musicians 77

5.3.1 Difficulties of COVID-19 77

5.3.2 Benefits of COVID-19 78

5.3.3 Novel solutions to problems....79

5.4 Study design 79

5.5 Quality Criteria 80

5.5.1 Objectivity 80

5.5.2 Reliability 80
5.5.3 Validity 81

5.6 Implications for practice in musicians' health and prevention psychology 81

5.7 Outlook and conclusion 82

Appendix 1: Structure Tree: Contributors to Resilience 83

Appendix 2: Interview Guideline 85

Bibliography 89

Eidesstattliche Erklärung 97

Abbreviations

CAMH	The Center for Addiction and Mental Health
CD-RISC-10	Conner-Davidson Resilience Scale – 10 Item
COVID-19	Corona Virus Disease 2019
FD	Focal Dystonia
GAS	General Adaption Syndrome
GI	Gastrointestinal
HPA	Hypothalamic pituitary adrenal
MAXQDA	Software program for Qualitative Data Analysis
MPA	Music Performance Anxiety
NPY	Neuropeptide Y
PRMD	Playing-related Musculoskeletal Disorders
PTSD	Post-traumatic Stress Disorder
SAD	Social Anxiety Disorder

Table of Figures

Figure 1: Viewing resilience as an outcome vs. resilience as a process.......................11
Figure 2: The General Adaptation Syndrome (cf. Cunanan et al., 2018, pg. 790)........16
Figure 3: Transactional model of stress and coping..17
Figure 4: Code System for Text Material...38
Figure 5: Contributors to resilience, code map...39

It was hard to find words for the dark cloud that hovered over me: of anguish, of dejection, of rage…At my lowest point, I seriously considered killing myself. But I didn't kill myself. I stayed alive. And, just as I was stuck with being alive, I was stuck with my love of music. Something about it was still sustaining, and still worthwhile. So I embarked on a quest to make a life in music, in any way I could.

Pianist Leon Fleisher (1928-2020)

1 Introduction

High resilience is widely recognized as one of the most important factors in navigating moments of crisis or adversity, with resilience being cited as a key component in how and to what extent a person 'bounces back' from a challenge (Windle, Bennett & Noyes, 2011; Liu, Wang, Zhou & Li, 2014). Resilience, however, is a notoriously difficult construct to effectively define and operationalize, and the contributing factors to resilience are at this point not thoroughly identified or understood. As is often noted in various writings on resilience, there are as many definitions of resilience as there are writings focused on the construct. However, one can generally define resilience as the ability of individuals, organizations, and systems to cope with adverse events or circumstances, or "the capacity of a system to withstand disturbance and reorganize while undergoing change, so as to still retain essentially the same function, stature, identity and feedbacks" (Walker et al., 2004). A social-ecological interpretation of resilience: "In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their individual and collective capacity to negotiate for these resources to be provided and experienced in culturally meaningful ways (Ungar, 2008). A comprehensive and operational definition of resilience adopted by UK Cross-Council Programme for Lifelong Health and Wellbeing (Windle, Bennett & Noyes, 2011) is "the process of negotiating, managing and adapting to significant sources of stress or trauma." There are many terms used, often synonymously and without differentiation, to describe processes of resilience such as "psychological robustness", "positive adaptation" or "stress resistance" (Dyer & McGuinness, 1996; Herrman et al., 2011; Knoll et al., 2011).

1.1 Leading questions

In academic literature, three categories generally emerge when defining resilience: resilience as 1) outcome, 2) process, or 3) personality trait (Liu, Wang, Zhou, & Li, 2014). Regarding resilience as an outcome involves successful adaptation despite risk, acute stressors and chronic adversities (s. Masten, 2007; Olsson et al., 2003). Regarding resilience as a process involves defining resilience as a dynamic process of adapting to perilous settings, with interactions between risk factors and protective factors (Luthar et al.; 2000, Masten, 2007; Olsson et al.; 2003). Lastly, resilience can be defined as a positive personality trait that enables a person to recover from adversity and adapt or even thrive under adverse circumstances (Reivich & Seligman, 2011; Block & Kremen, 1996). For the purpose of this thesis, as is often advocated in the recent research on resilience (Davydov et al., 2010; Reimann & Hammelstein, 2006; Stewart & Yuen, 2011) the definition of resilience as a dynamic process is adopted: a process in which personality traits, protective, and situational factors interact with each other.

Having adopted an approach to the operationalization of resilience, the question remains: What are the contributing factors to resilience, especially in times in which stress and uncertainty are high, such as during the months following the COVID-19 outbreak? Which personality, situational and social factors are effective in fundamentally supporting and increasing resilience within a sample of professional musicians? Because resilience is only present in the face of adversity (Luthar, 2006, p. 742), a sub-question will inquire what the major risks and stressors in the lives of musicians are, both pre- and during COVID. Finally, the effects of COVID-19 on the interviewees will be assessed, in terms of disadvantageous and possibly advantageous effects of COVID-19 on the professional and personal lives of the interviewees.

An example for investigating these questions comes from a study of New Orleans musicians who experienced profound loss and trauma after Hurricane Katrina in 2005. Through the study's interviewing process, a mix of psychosocial aspects of resilience was identified that assisted musicians who overcame the traumatic events, continued to work, and thrived in the face of adversity. These so-called "protective factors" include absorption (flow), enjoyment of social aspects of music-making, a network of social support, reliance on family, and environmental support systems (Morris, 2013). Vaag, Giaever & Bjerkeset (2013) similarly identified three overarching protective resources that assisted in maintaining and increasing resilience among Norwegian freelance rock and pop musicians, namely personal dispositions, family coherence and social resources. Another model study investigating factors of resilience in South African youth

from 1990-2008 (Theron & Theron, 2010), identified four categories for factors that contribute to increased resilience: protective resources anchored in the self, protective resources embedded in families, protective resources anchored in the community, and protective resources facilitated by culture.

1.2. Resilience among classical musicians in the context of COVID-19

In order to investigate contributing factors to resilience, classical musicians were interviewed about their self-perceived contributing factors to resilience. Musicians are used as subjects in this study for two main reasons: 1) They suffer from abnormally high rates of mental and physical stress (see below), and 2) They are particularly at risk in the time of COVID-19, in which for many the main sources of income have been canceled or postponed.

It has been well documented that professional classical musicians experience higher rates of mental illness (Vaag et al.; 2016a; 2016b; Kenny et al. 2012) and performance-impacting physical impairments (Zaza, 1998; Ackermann et al., 2014; Ciurana, Moñino et al., 2017) than the general population. The first wide-ranging study on professional musicians from Fishbein et al. (1988) showed that 76% of players from 48 American orchestras reported a medical problem serious enough to impair their ability to work. Most of the reported medical problems were musculoskeletal, affecting the shoulder, neck or back (58%). However, psychological disorders such as acute anxiety (13%), depression (17%), and sleep disturbances (14%) were also prevalent. There are several psychosocial stress factors associated with the professional life of a classical musician, including anxiety, chronic stress, perfectionism, work-life balance problems, a lack of professional and financial security, and substandard working conditions such as insufficient pauses, lack of professional autonomy, as well as long rehearsals and performances (Kenny, Driscoll & Ackermann, 2016; 2012; Kenny & Ackerman, 2009; Morris, 2013; Vaag et al., 2014). In addition to this, the onset of COVID-19 has introduced an incalculable and unprecedented (in living memory) amount of insecurity into the lives of many professional musicians, in particular for freelance musicians who have lost many sources of work throughout the Spring and Summer of 2020 with an uncertain future in the Fall and beyond. Also, musicians with fixed and previously stable contractual employment with major arts institutions such as the Metropolitan Opera Orchestra in New York City and the four resident orchestras at the South Bank Center in London have felt the effects of COVID-19. For example, since April 2020, the Metropolitan Opera has furloughed all of its union members until September 2021 (Woolfe, 2020), and the South Bank Arts Center in London (an institution that normally presents more than 3,500 events

every year) has warned that it may be forced to remain closed through the spring of 2021 due to impending financial collapse (Brown, 2020). According to a survey of 32,000 musicians conducted by the Musicians' Union in the UK (Musicians' Union, 2020), 38% of all survey participants reported that they were ineligible to receive governmental support because their income surpassed the government's threshold for support. From the respondents who do qualify for governmental support, 26% reported that they would still experience hardship in the interim period before governmental payments begin.

Given the widespread and nearly universally detrimental effects of COVID-19 on the musicians' community, it is useful to investigate contributing factors of resilience that mitigate the psychological, social and physical effects of the adversities musicians are currently experiencing.

It thus stands to reason that musicians can provide useful insights into the contributing factors of resilience. Understanding these factors better can provide insight that can help in providing psychosocial support for musicians in the coming months and years.

1.3 Overview of the structure of the thesis.

Following this introductory chapter, a theory chapter will follow in which a historical overview of resilience research will be provided, and several diverse ways of approaching and operationalizing the construct will be described. Because resilience can only be viewed within the context of a stressful or adverse situation, an overview of stress theories will be provided. An investigation into the specific attributes of a classical musician's professional life will conclude the theory chapter. The third chapter describes the methodology employed in this study on contributors to musicians' resilience, with an overview of qualitative research and specifically thematic content analysis. The study design will be described with regard to the semi-structured interview development, search strategies, the interview process, and the thematic content analysis. In the fourth chapter, the results of the thematic content analysis will be presented in hierarchical order with regard to the number of codings of each variable in three domains: 1) Contributors to resilience, 2) Musicians' stressors, and 3) COVID-19 related themes. The fifth and final chapter of this thesis involves an in-depth discussion on the main findings of the analysis, a critical evaluation of the research methodology, and implications of the research on practical work with musicians as well as future research.

In closing this introductory chapter, it is perhaps useful to refer to a historical figure with the aim of providing music-historical context for the following chapters. Johann Sebastian Bach displayed an extraordinarily high degree of resilience in dealing with life's hardships. Psychologist and musician Andreas Kruse (2015) describes the adversities Bach was subject to, including the loss of both parents in his tenth year of life (his eldest brother became Bach's guardian after his parents' death), the death of his first wife Maria Barbara, the death of eleven of his twenty children at birth or in early childhood, severe health ailments in the last years of his life and finally a series of professional blows, including the fact that a successor was chosen for him as Cantor of the Thomas Church a full year before his death. Kruse identifies factors that are considered in contemporary resilience research to be contributing factors that aid in a positive adaptation to hardship: these include Bach's early familial support, his relationship to the act of composing music and his social relationships with - and responsibilities for - others. Additionally, Bach displayed a talent for self-design, self-initiative, openness to new impressions and experiences, and a commitment to his function as a servant of God. These factors created a basis for Bach to create and maintain an exceptionally innovative and productive body of work throughout his entire lifespan, and to dedicate his life to a cause greater than his own human needs and sufferings, as indicated in the dedication of his pieces: "Soli Deo Gloria" ("To the Glory of God Alone").

One sees through this brief biographical sketch of J.S. Bach many of the contributors to resilience reflected in contemporary resilience research that will be further elucidated throughout this thesis: personality factors such as self-efficacy and cognitive focus, social support from family, and spiritual support from his religious convictions. The thesis aims to identify such contributing factors to contemporary musicians' resilience capabilities under the context of the COVID-19 pandemic.

2 Theoretical Background

2.1 Resilience

A major paradigm shift has taken place in the past three decades by researchers, clinicians, and policymakers in psychology and affiliate fields (Rutter, 2012): a focus on positive traits and adaptive processes is increasingly emphasized over a focus on negative traits and maladaptive processes. This trend can be observed in the emergence and wide-spread influence of "Positive Psychology" (Seligman & Csikszentmihalyi, 2000) and "Happiness Economics" (Layard, 2005). Rutter (2012, p. 336) senses both promising

and concerning aspects inherent in this paradigm shift. He cites as a promising aspect the recent emphasis on socio-emotional health as an equally important aspect of overall well-being to economic prosperity, but warned of an inherent trivialization in re-labeling such constructs as “conflict” as a “risk factor”, and “social harmony” as a “protective factor”, thereby downgrading the seriousness of mental disorders. Despite the challenges inherent in this paradigm shift, the changes to how psychology is researched, practiced, and perceived has driven an ever-increasing blossoming of resilience research throughout the previous five decades.

Early resilience research concentrated on childhood or adolescent development. A resilient child was described in early research as being ‘invulnerable’ (Anthony, 1974; Werner & Smith, 1982). This term was rather quickly abandoned by most researchers because of the misleading insinuation that the sources of resilience were predominantly internal. A first major study on resilience can be traced back to Emmy Werner’s work with children from Kauai (Hawaii) in the early 1970s and the resulting longitudinal studies from this work (Werner, 1982). Werner tracked the development of 698 infants with early adverse life circumstances (for example, premature birth, unstable household, mentally ill parent) and tested the assumption that such adversities in early life would automatically predispose an individual to psychological impairments in later life. Werner found, however, that one-third of high-risk children displayed resilience and developed into competent, caring and responsible adults. She identified protective factors, such as a strong bond with a nonparent caregiver and involvement with a church or community group. A similar study from Lösel and Bender (1999) compared adolescents who had grown up in social welfare institutions, identifying two groups among these adolescents: 1) Psychologically stressed and 2) Resilient. The more resilient youths were shown to display more active coping styles, lower levels of helplessness, and more positive self-evaluation. Michael Rutter made important contributions to the research through landmark studies comparing 10-year-old children living in the center of London, with 10-year-olds on the Isle of Wight (Rutter, 1973; Berger, Yule & Rutter, 1975).

2.1.1 Definitions of resilience

The term “resilience” is derived from the Latin verb “resilere”, which can be translated as “to jump back” or “to recoil”. The etymological roots of the word relate to the physical properties of materials that change shape through some interaction with their environment and subsequently return to their original form. Therefore, the core psychological definition: “to bounce back from adversity” is derived from this physical phenomenon in

most writings on resilience (Dadydov et al.; 2010; Dyer & McGuiness, 1996; Herrman et al., 2011; Luthar, Cicchetti & Becker, 2000; Masten, 2008). Vaillant (2002, p. 259) describes resilience with a poignant image: resilience resembles a twig with a fresh and living core, when the twig is twisted out of shape it bends but does not break.

There is a myriad of related terms used to describe processes of resilience such as “psychological resilience”, “psychological robustness”, “positive adaptation” or “stress resistance” which are often used synonymously with ‘resilience’ (Dyer & McGuinness, 1996; Herrman et al., 2011; Knoll et al., 2011; Rutter, 2007).

A central debate in resilience research is whether resilience is to be defined and operationalized as a personality trait (measurable, fixed and stable over time) or a dynamic process that develops and fluctuates over the lifespan and can vary according to context (Atkinson, Martin & Rankin, 2009 p. 137). In the approach of viewing resilience as a *personality* trait (Wagnild & Young, 1990; Reivich & Seligman, 2011), resilience is understood as a stable, cross-situational trait, as a basic ‘invulnerability’ to stressors. Defining resilience as a positive personality trait involves identifying aspects of personality that enable a person to recover from adversity and adapt and thrive under adverse circumstances (Wagnild & Young, 1990; Reivich & Seligman, 2011; Block & Kremen, 1996). According to Reimann & Hammelstein (2006, p. 18), a personality trait such as dispositional optimism contributes to resilience, but resilience factors are not limited to personality variables. Luthar warns against using the term ‘resilient’ as an adjective applied to a person or group (for example ‘resilient musicians’), “as this implicitly suggests an innate personal capacity to evade risk. It is preferable to use terms such as ‘resilient adaptation’ or ‘resilient pattern’, which carry no suggestions about who or what might be responsible for the [individual’s] competence” (Luthar, 2005, p. 1).

According to Rutter's relational approach (2007, p. 205), resilience is described as a person-environment constellation, meaning that individual and environmental characteristics contribute equally to resilience. Within this framework, one can view resilience either as the *outcome* of psychosocial and situational factors, or as part of a complex *dynamic process* of these factors. Regarding resilience as an outcome involves a successful adaptation despite risk, acute stressors and chronic adversities (Masten, 2007; Werner, 1995; Olsson et al., 2003). Regarding resilience as a process involves defining resilience as a dynamic process of adapting to perilous settings, with interactions between risk factors and protective factors (Luthar et al.; 2000, Masten, 2007; Olsson et al.; 2003, Rutter, 2012). The stress resistance of an individual can be described as a continuous phenomenon. No individual is equally resistant to stress at all points in time. For this

reason, resilience is currently mostly understood as a dynamic adaptation process by which individuals maintain or restore their healthy psychological functional level in the face of negative external influences (Davydov et al., 2010; Reimann & Hammelstein, 2006; Knoll et al., 2011; Stewart & Yuen, 2011, Rutter, 2012). Because the term has evolved since major research impulses began in the 1970s, many authors have themselves undergone changes in their way of describing resilience. One can find an example of this in Werner & Smith (1982) which focused on internal, personality-driven sources of resilience, and Werner & Smith (2001) which highlighted the external influence of teachers and other caring adults as sources of resilience. It has been stressed earlier in this thesis that resilience is an inexact and continuously developing concept, and it should not be assumed that the delineations provided by researchers advocating for a certain approach to resilience (personality, outcome, or process) are clearly distinct or do not evolve over time.

2.1.1.1 Resilience as a personality factor

One of the most influential contributions to early resilience research is a qualitative study of elderly women by Wagnild & Young (1990) which led to the development of the Resilience Scale (Wagnild & Young, 1993). This qualitative study analyzed participants' narratives and identified five contributing personality factors to resilience: 1) equanimity, 2) meaningfulness, 3) perseverance, 4) existential aloneness, and 5) self-reliance. Personality traits such as resistance to stress, ego resilience, hardiness, and ego strength have been cited as contributors to the stable trait of resilience (Block & Block, 1980; Kobasa, Maddi & Kahn, 1982). Liu, Wang, Zhou & Li (2014, p. 92) define resilience as a positive personality trait, one that enables a person to bounce back from adverse situations, and to adapt, thrive and mature under adverse circumstances. They further characterize resilient people as possessing an internal locus of control, a positive self-image, an optimistic attribution style, active coping skills, and hardiness.

Several authors strongly advise against conceptualizing resilience as a personality trait (Rutter, 2012, p. 335; Schoon, 2006, p. 16) because of (among various reasons) the danger of 'blaming the victim': of insinuating that people bear sole responsibility for their problems, instead of investigating the underlying processes that enable some people to bounce back from hardship, while others are fundamentally harmed through these adversities.

2.1.1.2 Resilience as an outcome

Southwick and Bonanno define resilience as "… a stable trajectory of healthy functioning after a highly adverse event" (Southwick, Bonanno et al., 2014, p. 2). This represents a view of resilience that focuses on resilience as an end-state: having successfully confronted adversity, one experiences resilience as the outcome. Emmy Werner (1995) identified three ways in which resilience could be viewed as a positive outcome to adverse circumstances in youths with adverse early-life situations: good developmental outcomes despite high-risk status, sustained competence under stress, and recovery from trauma (Fleming & Ledogar, 2008, p. 8). Werner (2006, p. 116) states: "Resilience is conceived as an end product of buffering processes that do not eliminate risks and stress but that allow the individual to deal with them effectively". Van Breda (2018, p. 3) describes convincingly the difficulties associated with identifying resilience as an outcome: "The process-outcome debate in resilience theory is valid, but creates an unnatural split between process and outcome. Resilience research involves three connected components: adversity, outcomes and mediating factors. It is not possible to think about or research resilience without considering all three components. Nevertheless, the problem with the outcome definition of resilience is that it merely declares the observation of positive outcomes in the face of adversity; it does not explain them. A declaration without an explanation has limited use and for this reason the process definition of resilience is to be preferred. Conceptually, then, resilience is a process that leads to an outcome, and the central focus of resilience research is on the mediating processes." (van Breda, 2018, p. 3).

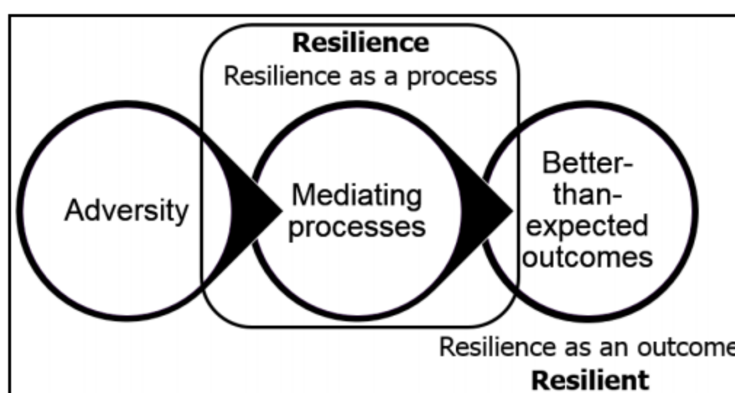


Figure 1: viewing resilience as an outcome vs. resilience as a process (van Breda, 2018, p. 4)

2.1.1.3 Resilience as a dynamic factor

Luthar & Zelazo state: “Resilience is a dynamic process involving shifting balances of protective and vulnerability forces in different risk contexts and at different developmental stages. At the same time, some fundamental components extend across adversities and stages. The many decades of stellar empirical research encompassed in this book indicate that in large measure, *resilient adaptation rests on good relationships*.“ (Luthar & Zelazo, 2003, p. 544). Michael Rutter, a leading figure advocating the consideration of resilience as a dynamic concept defines resilience as *relative resistance* to *psychosocial risk experiences* (Rutter, 1999, p. 119) arguing that resilience cannot be considered a personality trait, because people only become resilient when adverse conditions are present, and this dynamic process of interaction between resilience and adversity varies within different contexts. Therefore, resilience differs from other constructs such as competence or general positive adjustment, in that resilience cannot be perceived or investigated in the absence of adversity. Positive adjustment that occurs without the presence of adverse circumstances likely has different correlates and thus reflects different constructs. Luthar (2006, p. 742) identified resilience as a construct that could never be directly measured, but rather indirectly inferred through the presence of two dimensions: significant adversity and positive adaptation. Rutter (2012, p. 335) cites his colleague Norm Garmezy’s appeal to resist the understanding of resilience as a theoretical concept or an equivalent to positive psychology or competence (Rutter, 2012; Garmezy, Masten, & Tellegen, 1984), arguing that resilience research requires a methodologically rigorous approach to data analysis, longitudinal studies, and an ability to consider multifactorial causal pathways, as well as the interdependence of genetic and environmental influencers. Rutter states that risk and protective factors involved in resilience should not be defined based on theoretical or ideological presumptions, but instead should be investigated systematically in each study to identify how these factors operate in the context in which they were being studied.

2.1.2 Factors influencing resilience

One can divide factors that positively influence resilience into internal and external contributing factors (Amann, 2015, p. 17). Internal factors include character or personality traits; inner attitudes, opinions, and beliefs (such as self-efficacy and optimism); talents, gifts and abilities; and experiences and competencies. External factors can include positive role models, a supportive and stimulating environment, stable circumstances, at

least one reliable confidant, and opportunities for personal development and growth (Amman, 2015; Davydov, Stewart, Ritchie & Chaudieu, 2010; Reimann & Hammelstein, 2006). As has already been shown concerning the general definition of resilience, there are several terms associated with factors that influence resilience; “protective factors” (often used interchangeably with “resilience”), and “resilience factors” (Reimann & Hammelstein, 2006; Fleming & Ledogar, 2008). Concepts related to resilience include Kobasa’s concept of hardiness, Antonovsky’s sense of coherence, notions of thriving and benefit-finding and post-traumatic growth (Knoll, Scholz & Rieckmann, 2011; Reimann & Hammelstein, 2006; Rutter, 2007; Stewart & Yuen, 2011).

Related to Antonovsky's concept of ‘Salutogenesis’ (1979), resilience research is primarily *not* concerned with existing risk factors, but rather with possible protective factors that mitigate the effects of stressful environmental conditions or other negative influences (Siegrist, 2010). In the course of the scientific examination of resilience, a large number of contributing factors have emerged. It is important to keep in mind that the various factors are highly interdependent variables that are usually closely interrelated (Reimann & Hammelstein, 2006). Hammelstein’s recommendation should be taken into consideration, that resilience researchers differentiate the questioning process according to: 1) which factors 2) under which conditions, and 3) with which populations influence resilience.

As discussed above, resilience functions differently than personality attributes or biological characteristics, in that it exists only in the presence of adversity, and that it represents interactive and/or cumulative dynamic processes between personality traits, social supports, and situational elements. It should be mentioned, however, that certain biological markers appear to influence resilience. The most well-known of these biological markers is neuropeptide Y (NPY), a hormone released during stressful events. Unlike other stress hormones (cortisol and adrenaline) that activate an organism’s alert systems, NPY works to reduce activation in various parts of the brain, including the amygdala, prefrontal cortex, hippocampus and brainstem. This hormonal release, akin to braking a moving vehicle, is a significant biological marker indicating high levels of resilience (Hughes, 2012). It appears that the levels of NPY-release can be improved through resilience training, as seen in soldiers who had been trained in military survival techniques and who had higher levels of NPY during stressful events (Morgan et al., 2000, p. 902). There may be genetic and other biological variations in peoples’ responses to stress. An example of this can be seen in the gene FKBP5 which is involved in the brain’s hormonal feedback loops driving the stress response. Binder et al. (2008, p. 1291) showed that low-income, inner-city individuals who had experienced physical or sexual abuse as children shared

variants in their FKBP5 gene which predisposed them to develop PTSD symptoms as adults. Other variants to the FKBP5 gene seem to have provided protection in terms of not developing PTSD.

2.1.3 The role of resilience in the process of positive adaptation to stressors

George Vaillant oversaw the data from the longest study of adult development ever conducted: The Grant Study. In this study, 268 graduates of Harvard University between the years of 1939 until 1945 were tracked and examined through the following 75 years via biannual questionnaires, information from their primary physicians, and personal interviews. The study aimed to identify contributors to healthy aging. In Vaillant's book *Aging Well* (2002, p. 260), he identified various genetic and environmental factors that contributed to resilience, stressing the interactivity of the factors. For example, one's ability to feel safe enough to develop and deploy positive adaptive defenses (such as humor and altruism) is facilitated by the presence of loving friends. Also, people with a genetic predisposition to appearing attractive or lovable to others will have an easier time attracting support from others than those with less favorable genetic predispositions. Vaillant further states that love given by supportive others is, in itself, not sufficient. The love must be successfully recognized and 'metabolized' by the receiver. Resilient individuals show a capacity for finding loving and supportive figures, if not available in the immediate family, then in the extended family or wider community. Marriage was also found to be an important contributor to resilience. Internal personality-based factors influencing resilience (Vaillant, 2002, p. 278) include:

1. Future orientation (the ability to anticipate, plan, and hope)
2. A capacity for gratitude and forgiveness
3. A capacity for empathy and love for others
4. A desire to do things *with* people, as opposed to a desire to do things *to* people

2.2 Stress and adversity

As mentioned earlier, resilience is a phenomenon that can only be perceived in the context of stressful or adverse conditions. It is, therefore, useful to examine stress in its role as an activating agent for dynamic resilience processes.

Any intrinsic or extrinsic stimulus that causes a biological response can be called referred to as stress. How stress is responded to is known as a ‘stress response’, in other words, a compensatory mechanism aimed at restoring homeostasis. Stress can be harmful in two circumstances: 1) when the stressful event is traumatic and results in post-traumatic stress disorder (PTSD) (Hughes, 2012, p. 167); and when stress becomes chronic (Yaribeygi et. al., 2017, p. 1057).

2.2.1 Definitions of stress

The term ‘stress’ originated in the physical sciences (i.e. engineering) to describe how human-made structures must be designed in order to resist deformation by external forces. In the behavioral sciences, stress refers to psychophysical processes that occur when physical or psychological stimuli are loaded onto an individual. The endocrinologist and stress-researcher Hans Selye defined stress as the “response of the body to any demand, whether it is caused by, or results in, pleasant or unpleasant conditions” (Selye, 1976b, p. 74). According to Lazarus (1966), stress arises from a subjective assessment of a situation as a state of intense and unpleasant tension that overwhelms the coping resources of the individual. The stress-inducing situation is difficult (or not possible) to cope with, occurs within a short timeframe, and lasts for a long time or is repeated often (Greif & Stürmer, 2012, p. 1).

2.2.2 Theories of stress

Stress research can generally be classified into one of two categories: ‘systemic stress’, or approaches that concentrate on physiology and psychobiology (i.e. Seyle’s stress theory (1976), and ‘psychological stress’, or approaches developed by cognitive psychologists such as Lazarus (1966).

2.2.2.1 Selye’s General Adaption Syndrome (GAS) Theory

Hans Selye was a leading stress researcher who developed a model of a three-step process that describes the physiological changes experienced in the body during stressful events (Selye, 1976). This model, which was derived from experiments with laboratory rats at McGill University in Montreal, is known as the “General Adaptation Syndrome” and consists of three phases:

1. Alarm: initial physical symptoms occur under stress, i.e. flight or fight response, increased heart rate, cortisol release, increased adrenaline and noradrenaline. The alarm phase begins with an initial decline, followed by an increase in the level of adaptation.

2. Resistance: The cortisol level drops, heart rate and blood pressure start to normalize and return to pre-stress levels. If the source of stress persists, the stress hormones remain high and blood pressure remains elevated. If the resistance phase lasts too long, irritability, frustration, and lack of concentration may appear.

3. Exhaustion: the result of persistent or chronic stress. Symptoms include: tiredness, burnout, depression, anxiety, reduced stress tolerance, weakened immune responses, resistance is no longer possible.

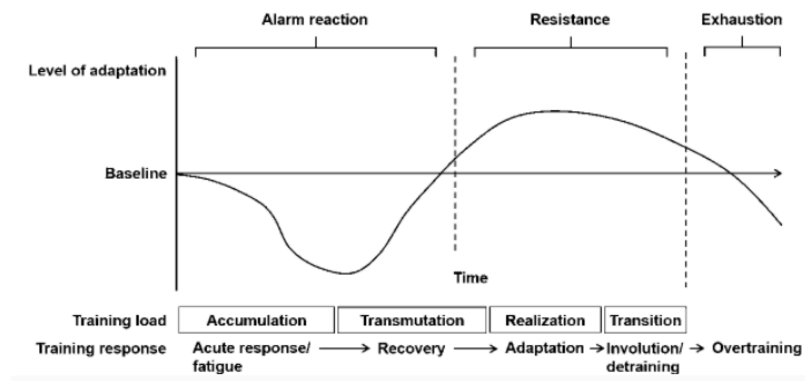


Figure 2: The General Adaptation Syndrome (cf. Cunanan et al., 2018, p. 790)

2.2.2.2 Lazarus' transactional model of stress

The Transactional Stress Model (Lazarus, Folkman, 1984; Lazarus, 1991) states that our experience of stress lies in a relational (and generally transactional) system of appraisal, reaction and adaptation. The transaction model suggests that one goes through two appraisal phases before one perceives stress and reacts to it. The primary appraisal involves evaluating the situation and deciding whether it is relevant, particularly if it contains aspects of gain or harm. If one determines that the stress is relevant, one continues to assess the stress as positive or dangerous. If the stress is classified as dangerous, a second stage of assessment is initiated. This secondary level of stress assessment involves determining whether sufficient coping resources are available by weighing the requirements (risks, uncertainties, difficulties) against the perceived resources (social

support, expertise, etc.). If the requirements outweigh the resources, the stress is perceived as negative and one feels overwhelmed by it. If the resources outweigh the requirements, stress can be perceived as positive.

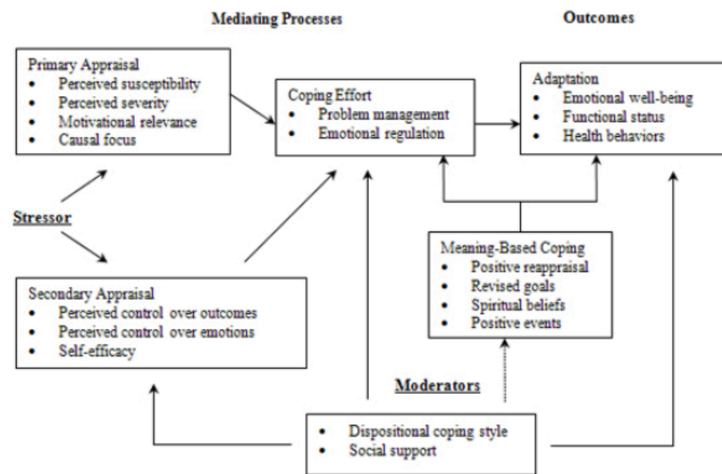


Figure 3: Transactional model of stress and coping (https://www.med.upenn.edu/hbhe4/part3-ch10-theory-overview.shtml)

Through the two models of stress described above, one sees voluntary and involuntary coping mechanisms at a physiological as well as psycho-emotional level. Some of these coping effects can be viewed as maladaptive (exhaustion, depression), and others may be viewed as contributing factors to resilience (positive adaption, emotional regulation).

2.2.3 Effects of stress

A certain amount of psychological stress is an inevitable part of living in contact with others and the world and experiencing everyday risks and hazards. Stress perceived as bearable can, depending on personal characteristics and available resources, even assist in keeping oneself vigilant, motivated, and capable of working and learning. Hans Selye writes: “Stress is the salt of life, few people would like to live an existence of no runs, no hits, no errors. Yet, it is beneficial for the human machine to rest periodically; hence the development of various religious and psychologic techniques designed to diminish temporarily all forms of biologic stress, close to the minimum compatible with survival. Total elimination of stress – that is, cessation of demands made upon any part of the body, including the cardiovascular, respiratory, and nervous systems – would be equivalent to death.” (Selye, 1976, p. 56). However, when events or environments become overly stressful, or otherwise unmanageable, unbearable amounts of stress can arise and can affect a person’s health and ability to live fully.

2.2.3.1 Impacts of stress on physical health

Under extreme forms of stress, predictable physiological processes take place. The brain's pituitary gland sends signals (originated in the hypothalamus) to the adrenal glands which start to release the stress hormones adrenaline and cortisol. Yaribeygi et al. (2017, p. 1062) identified several areas in which stress has an impact on biological health:

1. Immune system functioning: individuals experiencing acute and/or chronic stress have compromised immune responses and suffer from more frequent illnesses. In extreme cases, this may lead to the growth of malignant cells and cancerous tumors.

2. Cardiovascular system functioning: stress can activate both the sympathetic and parasympathetic nervous systems. Activating the sympathetic nervous system involves an increased heart rate, vasodilation, narrowing of the veins, and other processes related to the cardiovascular system. Stress-related activation of the parasympathetic nervous system can involve stimulation of the limbic system, resulting in a decrease or even total-stoppage of the heartbeat, and a decline in blood pressure.

3. Gastrointestinal (GI) complications: stress can affect the appetite, resulting in an increased or decreased appetite, as well as the normal functioning of the GI tract. One way in which stress affects the GI tract can be seen in inflammatory processes within the GI tract, which may result in GI inflammatory diseases, such as irritable bowel syndrome and Crohn's disease.

4. Endocrine system functioning: stress can either activate or change the activities of many endocrine processes. Even a small amount of stress can activate the hypothalamic-pituitary-adrenal axis, which in turn activates several different hormone-secreting systems.

2.2.3.2 Impacts of stress on psychological health

According to Alkadhi (2013, p. 1), acute forms of stress exert little or no long-term negative impacts on mental health outcomes. However, severe and/or long-term stress can

lead to overactivation and dysfunction of the hypothalamic pituitary adrenal (HPA) axis and exert a negative impact on the brain's structure and function. Chronic stress is associated with a loss of cognitive function, including learning and memory processes. Chronic stress increases vulnerability to mental disorders such as schizophrenia, Cushing's syndrome, thyroid hormone disorders, sleep disorders, Huntington's disease, and bipolar disorders, among others (Alkadhi, 2013, p. 11).

The Center for Addiction and Mental Health in Canada (CAMH, 2020) identify mental health risks and symptoms arising from long-term stress, including:

- Cognitive symptoms (i.e. difficulty concentrating, negativity, difficulty making decisions)
- Emotional symptoms (i.e. irritability, feelings of hopelessness, unhappiness, and guilt)
- Behavioral symptoms (i.e. changes in eating and sleeping patterns, social withdrawal, increased use of caffeine, cigarettes, alcohol, and other drugs)

2.2.3.3 Occupational stress

There are many reasons why the working environment of today is more stressful, volatile, uncertain, and ambiguous than that of several decades ago. With increased globilization arises unpredictable economic, social and political fluctuations, along with an ever-increasing interconnectedness of information and goods. The digital transformation has changed the working environment, requiring employees to be available off-site and off-hours. Businesses are forced to be more agile and lean to maintain competitiveness in the contemporary world market. Workers have less job-security than their colleagues did thirty years before. As the world order becomes more turbulent and changeable, organizations struggle to respond with increased resilience, leading to a "resilience gap" (Välikangas, 2010, p. 3). Turner, Barling and Zacharatos (2002, p. 715) wrote that the nature of work has changed over the past decades. There are more part-time and contingency workers, and "lean strategies" have been taken precedence over care for and consideration of the worker in assuring profitable outcomes for company shareholders.

The increase in stressful work environments leads to a wide range of socio-economic consequences, including absenteeism, turnover, loss of productivity, and disability pension costs (Palmer & Dryden, 1994, p. 12). There are also personal costs to chronic stress in the workplace, including lower self-esteem, somatic conditions (for example

heart disease), and negative impacts on family life (Czabala, Charzynska, & Mroziak, 2011, p. 70).

The effects of occupational stress not only extend to one's working life, but also life outside of the workplace, leisure time, and family time. According to Bamberg (1991, p. 201), 33% of workers in a study on workplace stress feel strongly exhausted, or very strongly exhausted, after work, and workers require 10% of their leisure time to recover from work exhaustion before they can undertake other activities. Bamberg continues by warning that studies addressing stress in the workplace rarely consider the effects of workplace stress on other aspects of life, particularly on free time and family time.

2.2.4 Coping mechanisms for stress

There are several ways of describing how stress is absorbed in the body. One way describes the pathological consequences of stress, such as impairments to brain function, post-traumatic stress disorder (PTSD), hippocampal shrinkage, and elevations in cortisol levels (Vaillant, 2011, p. 366). A second way of viewing stress responses is focused on voluntary and involuntary coping mechanisms that can range from a fever (as an involuntary response to a pathogen in the body) to Beethoven's insertion of Schiller's *Ode an die Freude* in his *Ninth Symphony* as a voluntary way of coping with suicidal depression. Vaillant continues to classify coping responses in three categories: the first involving the mobilization of social supports by the voluntary elicitation of help from others. The second category involves voluntary strategies such as gathering information, anticipating danger, and rehearsing responses to danger. The third category involves the involuntary mechanisms of homeostasis, such as the regulation of blood sugars via insulin, or shivering as a response to being cold. Vaillant describes these coping mechanisms as 'defenses', a term used to describe life adaptation and not necessarily referring to Freudian psychoanalysis. Vaillant developed a classification model for various defenses with four levels:

1. Psychotic defenses (common in PTSD): delusional projection, psychotic denial, and psychotic distortion
2. Immature defenses (also common in PTSD): acting out, passive aggression, autistic fantasy, dissociation (i.e. out of body experiences during assault), and projection (paranoia).

He characterizes these first two categories as maladaptive defense mechanisms.

3. Immediate (neurotic) defenses: displacement (i.e. kicking dog instead of boss, isolation (thinking without feeling), and repression (feeling without thinking).
4. Mature defenses: altruism, sublimation, suppression and humor

A defense such as humor can work similarly in the body as meditation, as a signal to shift the body's activating sympathetic agitation mechanisms to parasympathetic calmness.

2.3 The profession of a classical musician

Non-musicians tend to view professional music-making as an activity with many health-inducing benefits, including relaxation and the professionalization of an activity widely regarded as a leisure hobby (Brodsky, 2006). What is not generally sensed is the toll that music-making at a professional level can exert. Brodsky describes the various systems needed to support professional music-making: exceptionally high functioning of the autonomic and proprioceptive systems, as well as a blending of emotion and intelligence, response control and empathic abilities. Concertizing also requires high levels of attention, concentration, memory and emotional involvement. According to neuroscientists Bangert & Altenmüller (2003), one of the most difficult tasks a human can undertake is making music at a high level. Playing music at a professional level requires extraordinarily high levels of spatial and temporal precision of movement, as well as an immediate and highly critical feedback to the ongoing aural signals. In addition to the physical and neurological demands of professional music-making, the activity is emotionally charged in two distinct ways: music functions as a carrier of emotional content, and the musician is responsible for effectively communicating these affective and non-verbal semantics. The musician, particularly in the field of classical music, also operates in a culture of relentless social reward and punishment.

To achieve high levels of movement precision, emotional engagement, and audiation capability, more than two decades of study and practice in performance are most often necessary before fully entering into professional life. Musical training starts early, often by the age of seven, and develops through a highly disciplined and time-consuming acquisition of instrumental skills. Most music conservatories do not provide well-rounded educational offerings, but are rather highly focused on the development of musical skills such as aural competence and motor expertise (Brodsky, 2006). After studies, most musicians feel ill-prepared to enter the music workforce, as well as ill-equipped to practice any other profession than music. Möller & Popova (2011) describe the incongruence

between learning modalities in the conservatory – in which a painstaking process of perfecting a few number of pieces intended for solo performance is stressed – with the reality of a musician's livelihood working mostly in group ensembles – in which quick learning, navigating sometimes difficult interpersonal interactions, sight-reading, and fitting into preexisting musical social structures – are necessary for survival in the field.

These internal and external challenges of the profession may lead to a wide range of occupational difficulties and disorders. Performing musicians face a multitude of physical, psychological, and social challenges which must be mastered in order to enjoy a sustainable and rewarding career (Kenny & Ackermann, 2009). A groundbreaking study from Fishbein et al. (1988) found that 76% of 2,212 professional orchestra musicians from 48 different US orchestras reported at least one medical problem severe enough to impact performance abilities. Stage fright (performance anxiety) was the most prevalent medical problem, followed by musculoskeletal problems in the neck and back. A quarter of the musicians reported using beta-blockers to lessen performance anxiety, 70% of whom used beta-blockers without a doctor's supervision and prescription. Female musicians reported higher rates of medical problems than males (89% to 78%). More recent studies confirm these findings and show that the prevalence rates have not improved over the past three decades. Steinmetz et al. reported (2015) that 89% of professional musicians complain of playing-related musculoskeletal disorders (PRMDs) during the course of their career, with approximately 40% reporting chronic pain syndrome. Steinmetz notes that the prevalence rates for musicians' PRMDs vary widely in different studies (from 43% to 89%), and that this variability can be attributed to a lack of consensus in the definition and operationalization of PRMDs.

Various physical, psychological, and social challenges may have reciprocal and augmenting effects. For example, a violinist playing in Wagner's *Meistersinger* may be stationed in a crowded orchestra pit for 120 minutes without a pause, which constitutes an occupational (social) difficulty. She may, in the following days, experience pain in her bowing arm, which may be caused or exacerbated by the long stretches of playing without pause, and/or the cramped conditions, and/or performing anxiety. The stress caused by performance anxiety and suboptimal playing conditions may lead to pain chronification (Pak et al., 2018). The violinist is now experiencing stressors in three areas, social-occupational, physical, and psychological. Brodsky (2006) examined several studies identifying sources of stress in orchestral musicians and condensed the research into six categories of stress for orchestral musicians:

1. work environment nuisances, abuses, and hazards (such as air quality and ventilation, humidity, seating comfort, readability of score, toxic asbestos dividers used for sound isolation, and hearing losses);
2. working conditions (such as audition procedures, time pressure, workload and labor-management conflicts concerning tenure, salaries, and benefits);
3. social tensions and interpersonal factors (such as conflicts within the orchestra or with conductors, and feelings of being undervalued);
4. music performance anxiety and stage fright; problems of artistic integrity (such as unhappiness about how the music is played, and being subordinate to the will of a [guest] conductor); and
5. concerns about the technical difficulty of the music (perhaps a consequence of the ongoing decline of skills that may occur with age).

These stressors display the psychosocial and somatic adversities perceived by professional musicians. A further differentiation of physical, psychological and social-occupational stressors follows.

2.3.1 Physical stressors of the classical musician

Musicians are at risk of developing injuries, and this vulnerability increases with the number of hours per day spent at the instrument. Muscle-tendon strains constitute the majority of musicians' disorders, and other common issues include inflammatory disorders (i.e. tenosynovitis), arthritis, and hypermobility (Kenny & Ackermann, 2009, p. 390). Musicians' injuries can be classified as:

1. Muscle/tendon injuries: an overuse injury resulting from the inability of muscles to cope with the quality, quantity, and rate of demands related to the task of playing music.
2. Joint issues: degenerative disorders related to repetitive use and overload on a particular part of the body (i.e. the entire weight of the instrument must be carried by the right thumb of a clarinetist)
3. Nerve compression disorders: caused or exacerbated by sustained and non-ergonomic positioning of the body, sustained muscle contraction, or the compression from holding and supporting the instrument (Kenny & Ackermann, 2009, p. 391)
4. Central nervous system disorders: such as Focal Dystonia (FD), a task-specific movement disorder which is displayed by a loss of voluntary motor control or lack

of muscular coordination of extensively trained movements. This disorder is described as 'maladaptive plasticity' (Bangert & Altermüller, 2003, p. 141) in which neuronal abnormalities occur in three areas: 1) reduced inhibition in the sensory-motor system, 2) altered sensory perception, and 3) impaired sensorimotor integration (Altenmüller & Jabusch, 2010, p. 5). Focal Dystonia (known also as Musicians' Dystonia) affects approximately 1% of the musician population, by far the highest occupational group. By comparison, the numbers affected by FD in the US general population are: 0.0003% (Altenmüller & Jabusch, 2010, p. 3).

2.3.2 Psychological stressors of the classical musician

David Sternbach (1995) quantified psychological stressors in the lives of professional musicians through a 'total stress quotient', finding that musicians' professional stress levels far exceeded stress levels found in other professions. Some stressors he cited were the necessity to maintain peak skill levels, endure years of solitary and repetitive practice, subject themselves to harsh self-evaluation, and be closely scrutinized by the public and their colleagues. Some common psychological stressors related to professional musicians include: internal pressure/cognitive distortion, perfectionism, and music performance anxiety:

2.3.2.1 Internal pressure / cognitive distortion

"[Musical] Performers are egomaniacs with inferiority complexes" writes Evans (1998). This apparent paradox describes two fantasies harbored by many musicians: the first that they are "really marvelous" at their craft and the second that they are "really not that good at all" (Evans, 1998, p. 182). Evans goes on to describe these irreconcilable views as one of the highest stressors for musicians, causing them to obsessively occupy themselves with impossibly high internal standards. Resulting behaviors arising from this inner tension include: making excuses for never putting talent to the test (not auditioning for jobs, developing inexplicable somatic pains), developing an excuse for not playing well (developing an alcohol/drug problem), claiming that one is not understood by society, or convincing oneself that he or she is a fraud, with resulting feelings of guilt or anxiety (Evans, 1998).

2.3.2.2 Perfectionism

Skoogh & Frisk (2018, p. 6) describe perfectionism as a maladaptive coping mechanism and a response to psychological distress or loss of control in an adverse situation. It may be connected with anxiety, depression, and obsessive-compulsive disorder. Perfectionism is endemic in competitive, goal-oriented fields such as sports, academia, and classical music. Within these kinds of professions, one finds people who continuously strive to perform at their highest level and who aim at perfection. This, in itself, can be a driver for personal and societal growth. When these people, however, are never satisfied with their best efforts, or content with the amount of success they have achieved, one senses the personality trait of perfectionism at play. Studies investigating musicians' perfectionism have identified connections between perfectionism and performance anxiety, focal dystonia, and eating disorders. Stoeber, Sherry & Nealis (2015, p. 85) also correlate perfectionism with narcissism, or an excessive preoccupation with one's perceived level of importance and a lack of empathy for others. Perfectionists and narcissists also share the tendency to hold others to blame for their own failures. In perfectionists, this may function as part of an ego defense mechanism to shield themselves from self-criticism. Raphael M. Bonelli, a Viennese psychiatrist and neuroscientist, writes: "Perfectionism is avoidant behavior: those who work perfectly can neither be blamed nor dismissed [...] A perfectionist craves security [...] Often perfectionism is irrational fear of rejection accompanied by the fear of not being good enough, not meeting the demands" (Bonelli, 2019, p. 12). He further describes a perfectionist as an insecure person who constantly looks at himself in the mirror to put on a mask behind which he is hiding. "[...] Perfectionism is based on an unfree, neurotic fear of being faulty, which freezes the soul like the mouse in front of the snake" (Bonelli, 2019, p.13).

2.3.2.3 Music Performance Anxiety (MPA)

According to Kenny (2011, p. 81), music performance anxiety is a complex phenomenon that arises out of an interaction of several factors: including genetics, environmental stimuli, and an individual's experiences, cognitions, behaviors, and emotions. Though a degree of performance anxiety is regarded as a normal and facilitative response to the act of performing before others, high and prolonged performance anxiety can become a psychological disorder. The DSM-5 (American Psychiatric Association, 2013) identifies performance anxiety as a subgroup of social anxiety disorder (SAD). To be diagnosed with SAD, a person must display the following symptoms: suffer from persistent fear, anxiety, or avoidance for a minimum of 6 months; experience impaired social, occupational or general functioning.

Kenny (2011, p. 57) identified three types of music performance anxiety:

1) focal anxiety: associated with specific challenges (i.e. auditions, solo performances), not generalized to other situations
2) performance anxiety comorbid with social anxiety disorder
3) severe, performance-impacting performance anxiety comorbid with panic and either pervasive dysthymia, dysphoria, or depression

Many musicians self-medicate in an effort to cope with MPA through the misuse of alcohol, cigarettes, or drugs which can exacerbate the negative impacts to the musician's health. Beta-adrenergic receptor blockers, commonly known as beta-blockers, have become increasingly common as a way of counteracting the debilitating effects of performance anxiety. A survey of 2,122 orchestral musicians (Lockwood, 1989) identified that 27% of the musicians used propranolol (a beta-blocker) to manage anxiety before concerts, and 19% used the drug on a daily basis. Beta-blockers are prescription drugs and should only be used with medical supervision. Fishbein et al. (1988) found that 70% of orchestral musicians taking beta-blockers as a way of coping with MPA acquired and used them without the supervision of a medical professional.

2.3.3 Social-Occupational stressors of the classical musician

As noted by several researchers (Holmes, 2006; Kenny & Ackermann, 2009; Brodsky, 2006), it is nearly impossible to clearly differentiate psychological and physical stressors in the lives of classical musicians from social-occupational stressors, and there is often a compounding and amplifying aspect to various forms of stress (as illustrated in the example above of the violinist playing *Meistersinger*). When examining adversities in the lives of musicians, Holmes (2006) identifies 'destabilizing forces', also called 'risk factors' inherent in the profession. Uncertainty and unpredictability emerge as key threats to musicians, as evident in a widespread lack of professional and financial security, difficulties in work/life balance, and external/internal pressures to maintain sometimes unreasonably high expectations of performance. Several of these forms of stress arise out of social-occupational conditions of musicians illustrated by Brodsky (2006): monotony of rehearsals, uncertainties about schedule, irregular hours, frequent traveling, separation from family, competition, perceived back-stabbing among colleagues, and poor financial outcomes. Baumol and Bowen (1966) reported a conflict between the kind of training musicians underwent, and the actual jobs of orchestral musicians, citing this as a source of

cognitive and emotional dissonance. Whereas the education of a musician actively trains a musician to become a concert soloist, the job market only sustains a fraction of the number of conservatory graduates in soloist roles, with the majority dependent on orchestral or teaching jobs to earn their living. Möller & Popova (2011, p. 39) paint a perilous portrait of the musical landscape in Germany, in which ever-increasing numbers of conservatory graduates compete for decreasing numbers of fixed and contractually protected positions. As more and more students graduate from conservatory, orchestras are failing or merging, teaching positions in conservatories or music schools are being cut or allocated to freelance workforce, and more and more musicians are dependent on their income being generated in other fields than the one they intensively studied and trained for.

2.3.4 Stoicism and reluctance to disclose in classical musicians' cultures

In 1802, Beethoven wrote to his brothers describing the self-imposed social isolation he was experiencing through his encroaching deafness:

> I was compelled early to isolate myself, to live in loneliness, when I at times tried to forget all this, O how harshly was I repulsed by the doubly sad experience of my bad hearing, and *yet it was impossible for me to say to men speak louder, shout, for I am deaf. Ah how could I possibly admit such an infirmity in the one sense which should have been more perfect in me than in others* [emphasis added], a sense which I once possessed in highest perfection, a perfection such as few surely in my profession enjoy or have enjoyed — O I cannot do it, therefore forgive me when you see me draw back when I would gladly mingle with you, my misfortune is doubly painful because it must lead to my being misunderstood, for me there can be no recreations in society of my fellows, refined intercourse, mutual exchange of thought, only just as little as the greatest needs command may I mix with society, I must live like an exile, if I approach near to people a hot terror seizes upon me, *a fear that I may be subjected to the danger of letting my condition be observed* [emphasis added]...
>
> (en.wikisource.org/wiki/Heiligenstadt_Testament)

This moving description of Beethoven's fear of disclosure of the increasingly disruptive degenerative impairment to his hearing provides a way of entering into an aspect of musicians' cultures that is particularly sensitive and difficult to elucidate. An early study by David Westby (1960) identified a tendency in musicians to not

disclose negative aspects of the career. He spent six weeks of a twelve-week study getting to know the orchestra members he would later interview in an attempt to break down barriers in communication and a reluctance to disclose negative information about their professional difficulties. Westby writes: “Symphony musicians are an occupational group exhibiting considerable anxiety over their jobs on a number of dimensions... Gaining the confidence of the musicians in the interview situation was therefore crucial for the elicitation of unthreatened responses“. Rickert, Barrett & Ackermann (2014, p. 125) found that concealment of orchestra musicians’ injuries was widespread, and that this concealment played a role in the chronification of these injuries. Stoicism, or the endurance of pain or hardship without display of feelings and without complaint, is a widespread phenomenon in musicians’ cultures. Musicians indicate an expectation that anxiety and stress are endemic and normal hazards of their working lives (Kenny, 2011). Stoicism may resemble resilience, but Holmes (2017) warns that it undermines the possibility of positive adaptation, because adaptation requires both acceptance of the hardship as well as a willingness to make necessary changes in order to achieve a sustainable level of workplace stress. Musicians’ stoicism may lead to them not seek timely professional assistance when confronted with physical or mental hardships. Holmes also suggests that musicians may be susceptible to self-destructive behaviors, due to the popular conception that creativity and artistic integrity are closely related to mental disorders and suffering.

2.3.5 Resilience in classical musicians and its effects on stress or adversity mediation

Patricia Holmes (2017) warns of a too-narrow definition of resilience, instead advocating for discipline-specific interpretations of the construct. She lists attributes that might be fundamental to musicians’ resilience such as adaptability, which encompasses a sense of agency through experimentation, risk-taking, and autonomy in decision-making. Working environments in which personal agency is not permitted or actively discouraged are particularly dangerous for musicians’ resilience. The concept of transformability is also explored, meaning a global and fundamental process of significantly shifting situations and environments (either deliberately or by coercion) that have become untenable. In other words, transformability describes a positive adaptive capacity when confronted with acute challenges (Folke et al., 2010). When adversities such as injury disrupt a musicians’ status quo, a wide-ranging series of fundamental adaptations would be

necessary for the musician. In this case, a successful adaptation might involve the necessity of an array of psychosomatic medical and therapeutic interventions, adjustments to the working conditions, and perhaps even majors shifts in the musicians' career, including the cessation of performance-related activities. An example of this can be seen in pianist Leon Fleisher's shift from an active career as a soloist to a portfolio career involving teaching, conducting, and playing specific repertoire (left-hand pieces) following his years-long struggle with focal dystonia in the right hand. Such fundamental processes of reorganization in the life of a musician are dependent on a number of variables, including the individual's musical identity and self-concept, and his or her motivation to innovate, reorganize, and develop in novel ways (Holmes, 2017), as well as the amount of financial and social support the individual has at their disposal.

Holmes (2017) discusses two indispensable aspects of musicianship that may present conflicts with the development of resilience in musicians: namely vulnerability and risk-taking. Vulnerability involves the musicians' openness to exposing intimate aspects of his or her experience and personality, and, as described by Slobin (1993, p. 41), "the simultaneous projecting and dissolving of the self" in service of the music being played. Vulnerability, or the opening of the inner self to intense observation or scrutiny by colleagues and audiences, can, on the one hand, be a source of stress in a musician's life; but, on the other, can provide a sense of satisfaction and meaningfulness in the activity of music-making, thereby nourishing a fundamental psychological need of being perceived in one's existential depth. In the same vein, intentional risk-taking is an inherent part of authentic music-making. It can cause significant amounts of stress in performance situations, and, at the same time, contribute to the 'thrill' of being a musician. These aspects of music-making, as well as the constructs of sensitivity and creativity, have the potential to stabilize or destabilize a musician, and must be balanced in the attempt to create a sustainable environment in which a musician can live and work. Resilience-building interventions that focus on aspects such as self-regulation and risk-reduction (i.e the Penn Resiliency Program: Reivich, 2020) may, therefore, appear "tone-deaf" to the inherent needs of musicians.

3 Method

3.1 Overview of the study design

This thesis explores the contributing factors of resilience in a population of professional musicians after the outbreak of COVID-19. A qualitative study design employing thematic content analysis has been adopted. According to Hammarberg, Kirkman & de Lacey (2016), qualitative methods are appropriate when seeking answers to questions about experience, meaning, and perspective from the viewpoint of the study participant, as opposed to quantitative research methods in which the aim is factual data, for example, the percentage of the population, the population's distribution by age, marital status, geographical location, and so forth, as well as changes from one point in time to another. Qualitative research methods are appropriate for in-depth questioning, in which the aim is to understand a condition, experience, or event from the individual respondent's perspective.

In a novel and influential study examining the lived experience of professional musicians' PRMDs, Guptill (2011, p. 84) provides an overview of the extant literature on musicians' PRMDs, finding that the majority of studies focused primarily on the understanding and treatment of pathologies. Underrepresented in the literature were studies that examined environmental and personal factors, as well as the role of music in the life situation of the individual being studied. She further noted that developing best-practice treatments were highly contextual on issues such as mental health, socioeconomic status, access to high-quality healthcare, relationship factors, and so forth. Guptill stated that no studies exist that explore the lived-experiences of musicians with PRMDs, and advocated for the usage of qualitative phenomenological research methods to address this deficit. Based on this precedent, it was determined that a qualitative design was most appropriate for the research undertaken in this study.

3.2 The semi-structured qualitative interview

The semi-structured interview is a versatile and flexible format for qualitative research which enables reciprocity between the interviewer and the study participant. (Kallio, Pietilä, Johnson, & Kangasniemi, 2016).

In accordance with Kallio et al. (2016, p. 2956), who recommended five phases for developing a semi-structured interview, the first phase in the development of the semi-structured interview involves evaluating the appropriateness of the semi-structured

interview for the current study. The interview format was viewed by the study author as appropriate because:

- The goal is to identify complex perceptions and opinions
- The subject matter is emotionally sensitive
- The subject matter is meaningful to the study participants

The second phase of the interview development involved retrieving and employing previous knowledge. This was accomplished through a study of the following subjects: general definitions of resilience; identifying resilience as a personality factor, outcome or dynamic factor; factors influencing resilience; resilience and stress; and the particular adverse experiences inherent in the career of a professional musician. An extensive literature review was conducted for the purpose of developing a thorough understand of the above-mentioned phenomena. The results of this review of the literature are represented in chapter two of this thesis.

The third phase involved formulating a preliminary semi-structured interview guide, or a list of questions that address the research questions during the interview. The interview guide was created out of a structure tree identifying contributors to resilience based on existing research: personality factors (flexibility, self-efficacy, emotional regulation, optimism, cognitive focus); social support (support of family, friends, colleagues); and external support systems (support provided by employer, support by other agencies or organizations, and spiritual support). This structure tree is included in appendix 1. The semi-structured interview format followed an inductive trajectory, beginning from general questions and proceeding to more specific questions identifying contributors to resilience. The items in this semi-structured interview were designed using best practices for qualitative research (Froschauer & Leuger, 2009): employing open questions, clear and concise everyday language, and allowing the participant to control the length and nature of the responses. The interviewer asks questions addressing the main themes and has the liberty to ask follow-up or clarification questions, if necessary. If the participant stressed one aspect of resilience over another (for example, external sources of support over personality factors involved in resilience processes), the interviewer has the option of concentrating the questions more on aspects of particular relevance to the participant.

The fourth phase of the interview-developing process involved pilot-testing the interview guide to identify aspects of the interview-guide that needed revision or expansion. This

process was conducted on one musician who did not participate in the study. Minor revisions were made.

The fifth part of the interview development process was to present the semi-structured interview in its final form as part of the research paper. To this aim, the final semi-structured interview is included in appendix 2.

3.3 Search strategy, inclusion or exclusion criteria

Adult, professionally trained classical musicians were recruited through various means, including online platforms, trade unions and referrals. Theoretical and criterion sampling was used to ensure that the respondents met the criteria mentioned above and represented a heterogeneous mix of genders, geographic locations, types of professional activity (freelance vs. contractual work), and age groups. Theoretical sampling is described as sampling informed by "incidents, slices of life, time periods, or people on the basis of their potential manifestation or representation of important theoretical constructs" (Patton, 2001, p. 238). Criterion sampling can be used to identify cases in which an important criterion is actively sought, such as above-average resilience scores (see below for information about the usage of the resilience assessment: CD-RISC-10) (Patton, 2001, p. 238). This methodology was similar to a previous study exploring the lived experience of professional musicians with playing-related injuries (Guptill, 2011).

The participants were asked to fill out an initial questionnaire identifying general demographic characteristics (age, gender, type of employment, current location, relationship status, number of children in household under the age of 17, and total household income) as well as to complete a resilience assessment (CD-RISC-10). Of the 17 respondents, 11 were selected for in-depth interviewing to ensure demographic heterogeneity. The CD-RISC is based on Conner and Davidson’s operational definition of resilience as the ability to thrive in the face of adversity (Conner & Davidson, 2003) and ranks highly in a metastudy (Windle, Bennett, & Noyes, 2011) on internal consistency, criterion validity, and construct validity. Permission was granted by the authors to use the test for this thesis.

As part of the initial survey, participants were informed about the process and intentions of the study and their right to confidentiality in final draft of the thesis. Their informed consent was requested before proceeding (Illing, 2014).

3.4 Process of interviewing

The interviews with the eleven participants were conducted between August 8th and 24th 2020. All interviews were conducted over the video-conferencing platform Zoom, which enabled the recording of the interviews. The recordings will be archived until December 31st, 2020. After the interview was completed the video file was transferred into the program MAXQDA to be transcribed and analyzed. MAXQDA is a software program that provides computer-assisted analysis of qualitative data and is a widely-used instrument for conducting a qualitative thematic content analysis (Mayring, 2002, 2010).

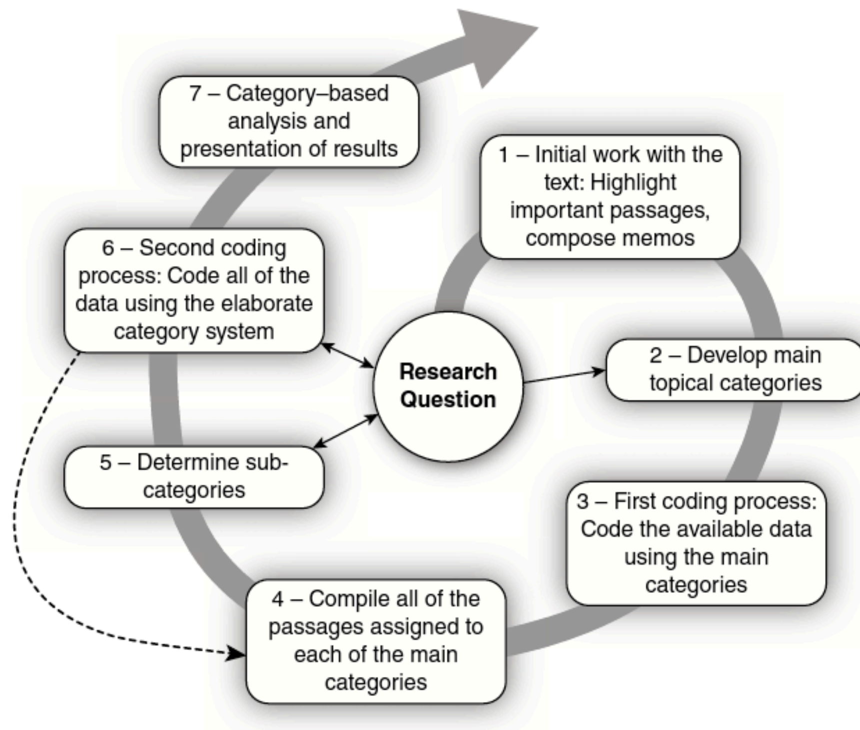
3.5 Thematic Qualitative Content Analysis

According to Philipp Mayring (2004), qualitative content analysis seeks to:

- understand analyzed material in its context of communication.
- depend on a systematic theory of category generation.
- be capable of measuring itself against quality criteria and inter-coder reliability.
- incorporate aspects of quantitative analytical procedures.

Research using qualitative content analysis focuses on the communicative aspects of language, while exposing the contextual or content meanings and categories inherent in the texts through an inductive process (Budd, Thorp & Donohew, 1967; Lindkvist, 1981).

Thematic qualitative content analysis is based on the definition of categories as the focal point for a systematic analysis of interviews. Früh writes: “the pragmatic aim of every content analysis is ultimately to reduce complexity while adhering to a certain research-based perspective” (Früh, 2004, p. 42). Kuckartz (2014, p. 36) identifies goals of qualitative content analysis as: “being rule-guided and intersubjective, but also interpretive and creative at the same time”. An example of the process of this kind of thematic qualitative text analysis follows:



(Kuckartz, 2014)

The process of thematic content analysis consists of repeated readings and categorizations of text segments. Through repeated readings, categories are identified and coded, which enables the creation of main and sub-categories. This process can happen in one of two ways: either categories are formed throughout this process, or categories are identified before the process begins, and sought out in the coding process. In this thesis, the system of category-building was based on a priori categories identified from previous research, discussed in the theory section of this thesis, and listed in appendix 1.

An early proponent of content analysis, Bernard Berelson (1952, p. 147) noted: “Content analysis stands or falls by its categories… since the categories contain the substance of the investigation, a content analysis can be no better than its system of categories”. As noted earlier, categories serve to reduce complexity. By necessity, some information gets lost in this process of reducing complexity, but the process assists in the building of inductive theoretical models. Categories can be described as factual (objective characteristics such as ‘job type’), thematic (pertaining to specific content such as ‘political behavior’), evaluative (categories with a discrete number of characteristics, such as ‘reactivity’: strong, neutral, weak), formal (related to the interview itself, for example, the length of the interview), or analytical/theoretical (developed by text

analysts as part of a deeper analysis, for example: out of the thematic and evaluative categories: ‘ideas about instrumental practice’ and ‘amount of time spent daily in practice’, the analytical category ‘practice behavior’ could arise.

3.6 Procedure of qualitative content analysis

Kuckartz (2014, p. 36) identifies six general points that guide the process of qualitative text analysis:

1. Categories, the code-book, and the process of coding are central to the analysis.
2. A systematic approach is employed that includes a set of clear rules for each of the individual steps of the analysis.
3. The entire data set is classified and categorized, and not only selected parts of the data.
4. Techniques to create categories are employed.
5. Hermeneutic interpretation and reflection are integral to the process and there is an awareness of the interactive form of the original material.
6. Quality standards and the aim of intercoder agreement are recognized.

According to Kuckartz (2014, p. 71), the procedure of a thematic qualitative text analysis follows seven phases:

Phase 1: Initial work with text

In this phase, the text is read through carefully, important text passages are highlighted, and memos are written. Memos are useful for recording subjective impressions of aspects of the text that seem particularly interesting or relevant, or identifying aspects of the text that do or do not align with the proposed theory of contributors to resilience.

Phase 2: Initial development of categories

The system of categories is derived from a theoretical framework, but in this phase it is possible to test the theoretical model and make changes if necessary. Topics and subtopics are developed and/or modified.

Phase 3: First coding process

All text is coded into main categories. It is possible to assign one text passage to multiple categories.

Phase 4: Compile all text passages that belong to the same main category
Phase 5: Create sub-categories inductively

Phases 4 and 5 serve to determine how good the fit of the empirical data is to the theoretic model used for building categories.

Phase 6: Second coding process

All the data should now be coded into the sub-categories. As an intermediary phase between phases 6 and 7, thematic matrixes are written for the main categories as they related to each of the 11 participants. From this thematic matrix arose short and factual (as opposed to interpretive) case summaries for each study participant, using both the analysis from the qualitative interview as well as the results of the initial quantitative assessment (CD-RISC-10) and demographic information. The case studies for each participant enable generalizations about resilience skills and processes, that will be further discussed in the following chapters, 4.: Results, and 5.: Discussion.

Phase 7: Category-based analysis and presentation of results

The content of this analysis constitutes the following chapter in the thesis in which findings of the study are discussed. The contributing factors to musicians' resilience in the context of COVID-19 are displayed with excerpts from the interviews to elucidate each of the main and sub-categories.

4 Findings

4.1 Quantitative and demographic information

Seventeen musicians responded to the initial inquiry for participation. Of the seventeen, eleven were selected for in-depth interviewing to ensure demographic heterogeneity and higher CD-RISC-10 scores than the sample average. The CD-RISC-10 average for the

entire sample was 29.06/40, and for those selected for the interview was 30.73/40. It should be noted that thirteen international studies employing the CD-RISC-10 for the general population between the years of 2003 and 2019 had an average of 30.61 (Davidson, 2020).

The following demographic information applies to the eleven musicians that participated in the in-depth interview.

From this demographic information, one finds a heterogenous group of musicians with regard to types of employment (i.e. freelance vs contractual) and income, with skewed results regarding age (64% between the ages of 45-54) and gender (82% female). Other demographic information collected showed that 64% of the interview participants were married, and 64% had no children.

The findings identifying contributors to resilience, stressors, and COVID-19 related issues will follow. A coding scheme emerged for the data material:

Code	Count
Code System	**471**
Covid	0
– novel solutions	19
– difficulties in this time	36
– benefits in this time	36
Stressors	1
– excessive work /work-life balance difficulti...	8
– injury	3
– difficulties with colleagues	6
– lack of preparation	1
– lack of work	2
– insecurity with job	5
– internal stressors	33
– financial	6
– competition	2
External Supports	10
– luck	17
– spiritual support	9
– support by other agencies / organizations	12
– support by employer	2
Social Support	11
– modelling	1
– effects of social support	15
– colleagues	28
– friends	18
– family	26
Personality Factor	0
– Gratitude	19
– drive (internal motivation)	11
– prosocial behavior (helping others)	8
– love of music	8
– flexibility	15
– – ability to learn / adapt to given situation	18
– self-efficacy	5
– emotional regulation / emotional awareness	40
– optimism	13
– cognitive focus	4
– – discipline /ability to set and keep goals	23

Figure 4 Code System for Text Material

The most frequently occurring codes will be presented below, together with excerpts from the text material.

4.2 Contributors to Resilience

Below is a code map for the contributors to resilience. Each circle signifies a code. The size of the circle indicates the frequency of the coding, and distances between codes display how similarly the codes were represented in the data. Lines between codes indicate which codes co-occur or overlap:

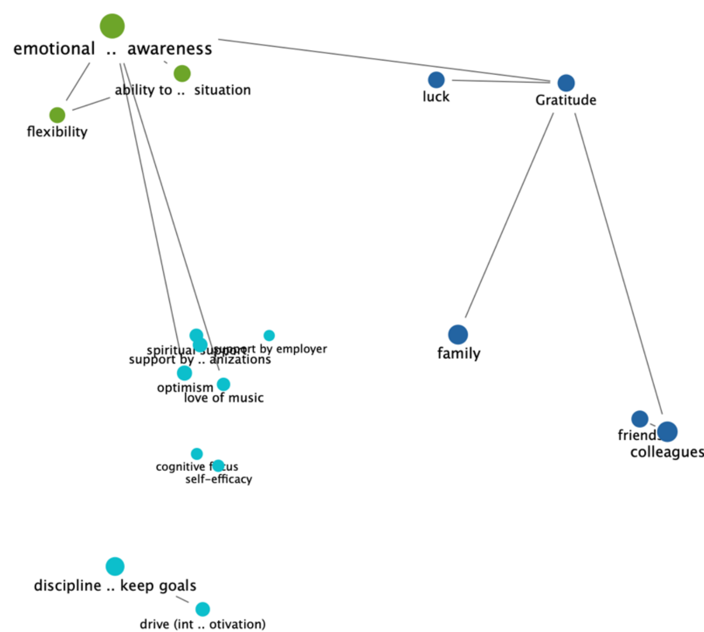


Figure 5 contributors to resilience, code map

One notices here several trends that will be elaborated in both this chapter and the following, namely that three personality factors are prominent and cluster together: ‘emotional awareness’, ‘flexibility’, and a sub-category of flexibility: ‘ability to learn/adapt to a given situation’. Other personality factors that featured prominently and will be discussed below are ‘cognitive focus’, and its sub-category ‘discipline / ability to set and keep goals’, and ‘gratitude’. Social support of family and friends/colleagues is linked with expressions of gratitude, and external supports such as luck, support by other agencies/organizations and spiritual support interact with various personality and social support systems.

4.2.1 Personality Factors

The majority of codings relating to contributors to resilience were allocated to personality codings, with a total of 164 distinct codings in the text material. The most prominent and frequently occurring personality factors will be elaborated below, with examples from the interviews, presented in hierarchical order with regard to the frequency of codings.

4.2.1.1 Emotional Awareness / Emotional Regulation

The personality factor *emotional awareness / emotional regulation* had by far the highest number of codings in the text material (40). This personality factor describes an individual's ability to absorb and regulate difficult emotions. Below are examples from the text material displaying a high level of emotional awareness and ability to regulate emotions. Please note that names and identifying information have been changed to protect the privacy of the interview participants.

Isabella, a clarinetist who works internationally as a concert soloist and is based in Düsseldorf, spoke about managing difficult emotions like sadness by allowing time to pass and thereby enabling the uncomfortable emotion to subside:

> "… If I'm really sad about something … I've learned to wait and not just erupt, but to get to some kind of an opportune moment and to try to figure out words to describe what's triggering me. So, I mean, sometimes if you're sad you just cry. I just cry sometimes. Things are just really sad, and then it goes away."

Sophia, a cellist working in Amsterdam as a freelancer and member of a new-music ensemble describes various processes involved in regulating difficult emotions, including acceptance and talking about these emotions with friends and colleagues:

> "I try to accept [difficult emotions], I try to acknowledge that they're there, sometimes I just, sort of, feel them and then I lash out at everyone around me, or I get very upset, and then I talk to someone about it, and then I get a little bit more perspective on it. But when I am feeling sad or anxious or angry, I usually am able to step back from the emotion a little bit and observe it and name it and kind of sit with it a little bit and accept it."

Margaret, a freelance pianist and academic living in Paris describes the motivating power of what she calls ‘righteous fury’:

> “On the one hand, I'm very used to rejection, you know from everything from university applications to the fact that I never win *anything*, I never win competitions. I was always a semi-finalist, never made the finals, like those sorts of knocks that make you *really* mad and upset for a week and then you're like: ‘no I'm gonna prove those f*****s wrong, because I've always felt like one day they'll be sorry … I have this righteous fury about certain things that kind of fuels me.”

Alexander, a trumpet player recently retired from an Israeli Orchestra described the weight of substandard performances on the musician’s self-esteem, and the process of modifying the self-incriminating thoughts:

> “At times it's devastating, because if you don't perform to your standards or to the standard expected, then what does it mean? And it doesn't mean *anything*, if anything, it's a learning experience, but it doesn't mean that you're a bad person, it doesn't mean that you're a failure, it just means that you're a human being that's going through what life brings.”

Charlotte, a principal violist in a major US Orchestra described learning how to emotionally regulate later in life:

> “… because in my childhood, like many children of immigrant parents, we're not taught to feel our feelings, you know, we are just taught to achieve. We’re taught to listen to our parents. That [The feeling and experiencing of difficult emotions] was not something I had any experience doing, so I had to learn how to do all of that as an adult. I had to learn how to name my depression, I had to learn how to be vulnerable and accept that that was an important step in progressing to a place of courage.”

4.2.1.2 Flexibility, ability to learn/adapt to a given situation

The coding ‘flexibility’ and its sub-category ‘ability to learn/adapt to a given situation’ was the second-highest coded personality factor with a total of 33 codings (15: flexibility; 18: ability to learn/adapt to a given situation). Flexibility is defined as the ability to adapt to

changes and bounce back after adversities, and the subcategory 'ability to learn/adapt to a given situation' describes an openness to adaptive learning processes, some of which take months or years to fully occur.

This adaptive learning process is displayed through an anecdote told by Susan, a principal cellist in a US Orchestra:

> "About 10 years ago I was preparing a concerto with my orchestra, and it was insanely difficult, I have no idea why I was doing this, it was crazy, and I had gone through a divorce a few years earlier and I was just, kind of, struggling with my personal life, you know, adapting to being alone. I had just dealt with the death of a couple of pets and so I had to perform this piece which was just too hard and it just ate me up. But my level of playing increased drastically. Now, I internalized the stress to the point where a kind of latent eating disorder came to light, so, I wound up taking the next year off to deal with both the eating disorder and the burnout and the depression that came along with it. But in doing that work on myself, I feel like I became a lot better of a person. I wound up meeting my now husband the summer afterward, and I don't think I would have been in the proper space to partner with a person like him had I not gone through that and just learned to grow. And so, personally, I had to grow from that experience like nothing else, and then just my chops were so much better. I mean, I was a different musician both from a technical standpoint and just from an empathic and emotional standpoint after going through those couple of years."

Nora, a freelance pianist, teacher, and Alexander-Method practitioner living in Belgium, spoke of a maladaptive process that arose from a psychologically difficult environment in her childhood and the necessity of developing extraordinary skills in adapting:

> "I think, for me, my personal ability to adapt is something that I find both healthy and unhealthy at the same time. So, coming from the family background I have, which was a family background with a lot of dysfunction, learning actually how to adapt meant adapting in an unhealthy way - I'm going to call it more like a survival mechanism. I think that children have this incredible ability to just adapt ... I developed antennas at a very young age so that I was always really aware of what's expected of me, what I had

> to do to survive, what I had to do in order to not get myself into trouble … and unfortunately, it took on an unhealthy turn because, in my case, when you don't learn that the people who are supposed to be taking care of you are able to do that, you start taking care of yourself, which means I relied much less on other people, I turned inward. I was doing a lot of things for myself, so my feelings of faith and trust, and being able to lean on people who would take care of me - I didn't have that safety net, so to speak. In the end, doing things myself didn't work, you know, it works to a certain extent because people would say ‘Oh, you're so strong!’ and ‘You can deal with this, you can deal with that.’, but for me, now I recognize that it wasn't strength - I was surviving … So now, I would say, I'm learning how to be resilient, and how to set boundaries, you know, it really is a choice. It's not something I have to do, I'm not a slave to my work, I'm not a slave of my children, I'm not a slave of the society. I have a choice, and there's a lot of strength in that.”

4.2.1.3 Cognitive focus / ability to set and keep goals

The factor *cognitive focus* was only coded four times. However, a subcategory emerged that appeared to be closely related to cognitive focus and common to many musicians. This factor was *discipline / the ability to set and keep goals*, which was coded 23 times.

Mia, a recently graduated clarinetist and teacher living in Virginia, U.S.A., spoke of her need for creating structure in approaching long-term professional goals:

> “I love creating structure. I'm definitely someone that does better with some level of structure, so finding things to prepare for, finding goals - you know, just finding small goals along the way – saying: ‘I would like to learn this piece by this date‘, or saying ‘Oh, you know, the Marine Band is having an audition, I should take that and I'll prepare these excerpts.‘, I think has really helped me more than just saying ‘I'm gonna play an etude today’. So, I've really appreciated that, and I've appreciated how many organizations are working to create audition environments and musical environments that can be done safely during COVID, because that has given me a good amount of structure in preparing and maintaining my professional abilities as a player.“

Charlotte, the principle violist mentioned above spoke of the necessity of a morning routine to prime herself for her work for the rest of the day:

> "On days when I know I'm playing, I have a warm-up routine. I try to wake up around the same time, I walk the dog, drink morning tea, and then I have a very strict warm-up routine, and it's a routine that I've developed as a professional. Before I start practicing, I have to warm-up properly. Otherwise, I feel like I can't find my sound for the rest of the day."

Susan, the principal cellist, cited preparation as an antidote to uncertain and destabilizing performance situations:

> "If it's a long-term project like a big performance, where you've spent so much time preparing for all the possibilities, and then something goes wrong, there's enough of a baseline there so that you know if something doesn't go according to plan, you can bring it back together very quickly. So, it all depends on the level of preparation for the situation."

In responding to the question „What kinds of things help you maintain your professional abilities under adverse circumstances like COVID-19, the pianist Margaret answered:

> "Well, very practical things, like having access to a piano and being able to have a routine, being able to create my own sort of projects. So, saying 'I'm going to video-record these things' helped me stay focused and gave me tasks to do."

4.2.1.4 Gratitude

Several participants expressed a sense of gratitude during the interviews, gratitude was therefore added to personality factors although it was not part of the original theoretical framework. Gratitude can be defined as the experience and expression of a sense that one feels fortunate by one's life circumstances. Gratitude was coded 19 times throughout the text material.

Sophia, the freelance cellist, spoke about her students during the time of COVID-19:

> “I’ve never been more grateful to have the students [that] I have than in the first couple of months when we were in a lockdown …it was really good for me just to have that contact with them, and to be able to really work on stuff, and it was good for them, it was good for their parents. I was really grateful for it, it helped, it was much better than if we had just not had anything [any employment], and, you know, I actually earned a little bit of money through that, which was very appreciated.”

Isabella, the clarinet soloist also spoke of being grateful for a relative lack of difficulties during COVID-19:

> “There are so many people that have life and death problems that are much, *much*, *much* more on a different level than mine, and I've been really lucky to not have to be in close quarters with a family with screaming kids that have no outlets or abusive marriages. I mean, you know, there's all that kind of stuff going on, so, in this case, I'm still really counting my blessings.“

Mia, the recently graduated clarinetist spoke in a general sense of being aware of her privilege when examining systems of support:

> “I mean, other than just being lucky, I was born in a very privileged position. I'm a white straight cisgender woman. I think that you, if you're living in that situation, you sort of have the implicit support of your environment almost anywhere you go, so, I think that's probably the only other thing that comes to mind. But again, I'm super blessed. I have a wonderful close-knit support system of human beings in my life.“

Charlotte, the principal violist wrote about a sense of gratitude of having had rich experiences such as travel, that would sustain her, even if life after COVID-19 became very different.

> “I think I'm also able to be grateful for the things that I have and have had, so, you know, I look around at the way we're not welcome anywhere - you know Americans - there's a ban on us and we can't come to Europe, even if we wanted to, and that does sadden me, because I have dear friends there ... and in a real sabbatical I would have been visiting them, and I thought: ‘all right, well one day, hopefully, I'll see them again’. But I, also, am so grateful

> for all the travel I've done … I can look back and say: 'well, I've done X, Y, and Z', and if this is our new normal, I will be sad, but I have had *many* opportunities - good ones."

4.2.1.5 Optimism

The last personality factor to report in depth is *optimism*, which was coded 13 times. Optimism is defined as the ability to find humor and lightness in difficult situations, to not be discouraged by failure, and to possess a belief in a benevolent world and future.

Yenay, a freelance pianist, conductor, and director of an ensemble in Hamburg, when asked what aspect of her personality helps her most in adverse circumstances, expressed an optimistic attitude:

> "Don't give up, keep hope, and I do trust that time can solve a lot of problems, so, I really also profit from this. I try to have a long view and most of the time I think it helps … also, it turns out all right in the end."

Isabella, after suggesting that she might be viewed as possessing a 'Pollyannaish' attitude, spoke of the element of choice in deciding to have, maintain, and cultivate an optimistic world view:

> "So, in looking back, I just really think it must be something in the personality that is predisposed, first of all, to either see things positively or not, but at some point, I think you have to choose to cultivate it, and you just decide that you do have a choice in your reactions."

4.2.1.6 Other personality factors

Four other personality factors were identified in the text material: *drive (internal motivation)* (11 codings), *love of music* (8 codings), *prosocial behavior* (8 codings), and *self-efficacy* (5 codings). *Drive (internal motivation)* is a perceived internal impetus that compels one to remain committed to the profession of being a musician. It can be described as inspiration, persistence, and/or ambition. Natalie, a freelance oboist, adjunct professor, and director of a music ensemble in Pittsburg described her *drive* as such:

> "I've got a crazy drive. Yeah, I've been called a tsunami, and you know, I take that as a compliment, but I know that that's not always seen as a good

personality trait. But yeah, I do have the drive, it's strong in me … I know that I can trust myself and my drive, and it's never ending. It's like a continual source of spring water that I rely on."

A theme emerged for five of the musicians interviewed which they cited as a sustaining force in their professional lives: *a love of music*. Nora, the freelance pianist, teacher and Alexander-Method practitioner described a conflict between a pure love of music, and professional obligations, such as the acquisition of work and experiencing the stress of high external demands. She worked to minimize the detrimental aspects of her professional life in order to protect her love of music, which she identifies as a sustaining force:

> “Now, if I play a concert that I organize in someone’s house, but I play music that I love and don't feel the pressure of someone needing something from me or having to make money with it, it's really about trying to find out that music means *that* to me, but it doesn't mean the whole race and stress around it. I'm not able to function in that kind of an environment, it really deadens my spirit. That's what it feels like. I don't know how to combine that passion for the creativity that I need, and then feeling the pressure of deadlines and having to get it done. It doesn't fit with who I am.”

Five musicians spoke of *prosocial behavior* as a way of navigating difficult situations, such as COVID-19. Charlotte described her section in the orchestra pooling money every month as a gift for their freelance colleagues working as substitute members in the orchestra. They gave this money monthly in the form of a gift card for groceries in order to not interfere with the freelance musicians’ unemployment benefits, and said that it was a way to let her freelance colleagues know: “’We haven't forgotten you guys.’ You’re there and you know they're not privy to any of our orchestra meetings, they don't get any of the emails because they're not full-time employees, and it's a hard position to be in.”

Mia described her own personal and professional situation during COVID-19 as relatively unburdened, but mentioned providing care for her colleagues struggling with the pandemic as a helpful aspect of her own well-being:

> “It also has helped me to step back and day-to-day ask: ‘How can I help the situation?’, ‘How can I help other people rather than focusing with the blinders on about getting myself to the other end of this?’. So, I can continue my life asking: ‘What can I do to benefit the lives of other people that can't really

> think about the end of the pandemic, that are having to live day to day, having to just survive every day, one-on-one-on-one.'"

Self-efficacy, or the belief that one can cope with difficult situations, and the belief in one's emotional strength can be seen in Natalie's description of how she navigates difficult situations through self-reliance:

> "I think that self-reliance is a combination of believing in yourself and knowing that you have the skills or the ability or even the drive to want to find a solution for something that's sitting in front of you - and it may look like an obstacle or maybe seem like a problem or something negative, but there's a way around it, or there's another way of looking at it."

4.2.2 Social Support

The social support in adverse times derived from family, friends, and colleagues was cited as an important contributor to resilience. Support from family, friends and colleagues was coded 62 times. How this support was given and perceived, and the effects of the support are described in the following sections.

4.2.2.1 Support from Colleagues

Support from colleagues was most often cited as a contributor to resilience, with 28 codings. There were several dual-codings between 'support from colleagues' and 'support from friends' because several musicians indicated that the colleagues with whom they worked most closely were among their closest friendships. Yenay, the freelance pianist and conductor talked about the intimacy and connection of making music together, which created a fertile ground for friendships developing out of collegial relationships:

> "Many colleagues become friends – especially in our musician profession. It's difficult to separate them as colleagues and not friends, especially my closest colleagues in the ensemble … To make music together, if they want to make music with me, it's already a big support as a human being and also artistically … Music-making is very social and you can't make a long-term relationship and working relationship with some colleague who has a completely different view of music and a personality that doesn't match yours. I think to make music together is already a result of social connection, and

> also, this group has a working communication through music in a larger sense … So, if someone asks you, ‘Do you want to play chamber music with me?’, it’s already the start of this trust.”

The pianist Margaret also indicated that musician colleagues were among her closest friends, but that there was a limit to friendships with other pianists, because of an underlying competitiveness:

> “I just had a concert tour with a soprano in the States in January, so we started off 2020 so well, and then this all happened, so definitely she's one of my closest friends in terms of talking about musical things and the career, but also just as friends. That has been very supportive. Some of the duo partners that I've worked with, that have been a source of support, but I always feel like with other pianists there's still some slight edge, even if they're perfectly nice in person and you would support them. There's just something that prohibits people from being, like, fully people in those situations.”

Alexander, the retired trumpet player who is now working towards a Ph.D., when asked what or who supports him most in his work, first openly questioned himself whether he should answer with “inner motivation” or “the support of my partner and family”, but then recognized that these support systems were constants in his life. What provided important extra support were colleagues who expressed interest in his academic work:

> “If someone [a colleague] praises my work, it really boosts me up. If I attend a workshop or a lecture and someone really clicks with what I'm doing with my research, and then I get all motivated to do things, because by myself, it's something like a marathon ... at times I need this extra motivation in order to get the boost.“

4.2.2.2 Support from family

Though ‘support from family’ received slightly less codings (26) than ‘support from colleagues’ (28), the emphasis with which family was cited as a source of support, and the immediacy with which family emerged as an answer to questions such as: “What supports you most in your work as a musician?”, make it clear that strong familial support is an important contributor to resilience. Below are answers to the question: “What supports you most in your work as a musician?”.

> “I have, honestly, I think a rare and wonderful network of amazing individuals in my life that supports my goals and offers me assistance constantly. So, my husband is wonderfully emotionally supportive, and also monetarily supportive, which is something a lot of musicians do not have. My parents have both been extremely emotionally supportive of my wanting to be a professional musician since I was a teenager.” (Mia)

> “Definitely my husband because I‘ve been a Ph.D. student and I have not made enough money to support myself.” (Margaret)

> “Okay, my husband. My husband is, I think, someone in my life who says that whatever I’m doing, it's the right thing, and if it's not going so well, I just should take more time, and not worry about it, and we're doing it together. That definitely helps me the most.” (Sophia)

> “My husband who's not a musician. He is a sounding board, an unwavering support and cheerleader and partner, and he's just very intuitive with what another person needs, and what he needs too.” (Susan)

> “Oh, my family, my original family: my parents, my sister, and also my new family: my husband … yeah, really, they are really wonderful!” (Yenay)

One sees in the responses above, that the forms of support provided by immediate family were emotional, financial, and as a cognitive “sounding board” who enabled the free expression of thoughts, ideas and emotions, which was cited as a help, for example, in the regulation of difficult emotions.

Alexander spoke of his family providing emotional stability and a framework for contextualizing professional successes or failures:

> “Having a relationship with a significant other, and then having a family – so, all these are things that bring it [professional ups and downs] into proportion: I think it helps to bring what you encounter through your performances, through your professional life, into proportion with other things, because it doesn't matter if it's good or bad, I still go back home, I still do the dishes, I still walk the dogs, it's just tribal.”

Susan expressed a similar function of the family as a normalizing and contextualizing force to counterbalance the excessive emotional demands of the profession:

> "[The support at home] helps me realize that it's not personal. I mean, so much of what we do as musicians - it's like we *are* our art, we *are* our music, it's really, *really* hard to separate those identities of professional and personal. But that support at home allows me to say: 'Hey, you know, you just played a really horrible concert'. You know, sometimes you just have concerts where just everything goes wrong. But it doesn't make you a bad person, it means you had a bad day."

4.2.2.3 Support from friends

Support from friends was cited often as a source of support (18 codings). A recurring theme among support from friends was the ability of musician-friends to understand the intricacies of the difficult professional situations that non-musicians would not be able to fully grasp. Musicians in this study often stated that it is nearly impossible for non-musicians to understand what it is really like to be a musician. Some ways in which this musician-friendship was described follow:

> "I have a core group of friends, there are five of us who share the stage … knowing that if something goes down, if we need to talk about something, there are people there who I know have experienced it as well, or will understand the experience without too much backstory explaining." (Charlotte)

> "I think a lot of musicians do have a good network of friends who are also musicians, especially in college, you just have a network of people that totally understand what you're experiencing, and there's a lot that is left unsaid, that is just sort of understood. I think that they definitely meet my needs of support more on the musical and the professional level than someone like my non-musical parents or my non-musical husband does. But, at the same time, it's not necessarily as *emotionally* supportive, if that makes sense." (Mia)

> "Most of my close friends are pianists that know what kinds of problems a pianist would have, and if I'm searching for support, also when I want to play my program through, for example, they are always there … [these friends] are also supportive during difficult times, especially with hand injuries, and provide all kinds of support, which I appreciate a lot." (Yenay)

On the other hand, Lucas, a freelance American pianist and teacher living in Munich, expressed a specific need for supportive friends who were not musicians:

> "I have a stable group of friends who are my guinea pigs. Every time I have a performance they come and listen to my program. None of them, almost none of them, are musicians, which is why I use them. They're the shallow surf before I dive into the water, and they come unfailingly and spend very large amounts of time listening to me play, and they come to my concerts."

Some participants expressed guilt or uncertainty in generating support from friends, viewing it as a sign of weakness that they were incapable or not strong enough to manage problematic situations by themselves. Sophia thought through this assumption, first characterizing her need for social support from friends as a personality deficit, and moving onto a recently acquired belief that receiving support from friends was *not* a sign of weakness, something she said has only occurred to her during the COVID-19 pandemic:

> "I tend to talk over problems with friends. I'm not very good at *not* talking about things that are important to me, and I've always felt that was a weakness, because I knew these people who are having really tough times or they're making huge changes in their lives, and they don't tell anybody about them until everything's done and they're like: 'Oh, by the way, I did this and that'. I've always seen it as my weakness that I have to talk about it, that I'm a blabbermouth and can't keep it inside and just deal with it myself. But recently, I've actually been thinking that that's a strength, because, first of all, it really actually helps me deal with the things that I'm dealing with. And so, I go out and look for what I need. My instinct is to ask for what I need, which is to toss thoughts and ideas back and forth with people that I know and respect. It also reinforces those relationships, it makes those supportive relationships stronger and more intimate. I really think that it's not a sign of weakness to ask people for their opinions and for their help, and that is a really recent development, I'm talking COVID-time development, to see it in that way."

4.2.3 External supports

Four support systems emerged, three of which will be presented below. The fourth one (support by employer) was only coded two times, indicating that it is not a significant form

of support for most musicians interviewed in this study. One statement did appear to be worthy of mention regarding employer support: “For my entire adult life I've had the security of a very steady paycheck. I belong to *the* [most prominent] arts organization in town. I mean, this is as close to corporate as you can get in the music world, right? I've got - and in America this is no small thing, you know - I've got health insurance.“ (Charlotte). The other three are presented hierarchically in terms of the allocated number of codings: *luck* (17 codings), *support by non-employer agencies / institutions* (12 codings) and *spiritual support* (9 codings).

4.2.3.1 Luck

Luck can be defined as the perceived sense that one has been or is assisted in life by fortunate circumstances largely out of one’s own control. Luck is expressed in comparison with the experiences of others who are perceived to be less fortunate. Luck often overlaps with gratitude, but is distinct in that gratitude is the thankful appreciation and conscious acknowledgment of perceived lucky or fortunate experiences in life. Gratitude can also be present in situations perceived as unlucky (e.g.: ‘I’m grateful that the difficult experience caused me to grow in a way I wouldn’t have without it’). Many of the interview participants acknowledged themselves as having lucky or privileged positions which shielded them from perceived true hardship:

> “I think I've done a decent amount of self-supporting, as well. I wouldn't say I’m co-dependent on my resources and on my network, but I think it would be wrong to assert that my success has totally been the work of myself. I've gotten very lucky as a musician throughout my academic career and into my professional career.” (Isabella)

> “If we talk about hardship, everyone has hardship, you know, has a difficult time at some point, but there are people who are, you know, dealt a different hand than others, and I've been very lucky in the hand that I've been dealt, so I feel like I have a lot of resources that have made it possible for me to not have hardships.” (Sophia)

> “When I was answering your survey, I thought: ‘I am resilient, however, I think a lot of that depends on how lucky you've been’, so, I consider myself very resilient professionally, but, you know, I also won my job early. I won the job when I was 22. If I had had to struggle for another 10 or 15 years to win my current job, I don't know how resilient I'd be feeling ... not only have I been

> lucky professionally, but I've been lucky with my family life as far as my parents are concerned. There's something to be said for knowing that you have a safety net that will make it easier to be resilient. You learn to be resilient, you learn how to roll with punches, but it certainly is a lot easier if you've also had a healthy dose of luck.” (Charlotte)

Yenay, when asked about the impact of COVID-19 on her life, replied:

> “I feel connected with a lot of the people suffering, especially as a Chinese person, you know, at the beginning I read a lot of sad news. But in my personal situation, I really don't have that many reasons to complain, so it's easy to say: ‘Okay, you deal with this situation well because you don't have that many difficulties.’”

4.2.3.2 Support by non-employer agencies / organizations

Three respondents cited governmental agencies as helpful supports when navigating adverse situations. All of these respondents cited the German government as a helpful source of support. Four of the eleven interview participants reside in Germany.

> “I think the German system is really good ... for example, all these systems of financial support. I think that's one of the best, maybe Switzerland is also as good as Germany, in Germany it is really one of the best [systems of artistic support] in the world that I know of … I think this kind of environment in a society - in a system - directly or indirectly supports my existence as a musician.” (Yenay)

> “In a general sense, I benefit [from the German system], that's why I'm in Germany. I benefit from the infrastructure, just generally that things function here, that art has a high place [in society], that there is usually support for people (pre-COVID), and that people pay for the services, and are interested in this "E-Musik" [concert music] and things like that.” (Isabella)

> “The German state [is a source of support]. Yes, really, like the funding for recordings.” (Lucas)

Other external sources of support included access to psychotherapy, the existence of a second career that could provide financial support for the musical activities, and

organizations that provided emotional support, such as an animal rescue agency and internet-based meditations programs.

4.2.3.3 Spiritual support

Spiritual support was cited as a contributor to resilience with several of the interviewees. Often this support was not directly expressed as ‘spiritual support’, but in follow-up questions clarified as such:

> “I also have the belief, it's a matter of faith, it's a matter of belief, but one of my beliefs is that one is not confronted with difficulties one cannot deal with. So, whenever I am confronted with some situation, it means that, first, I have the possibility of handling that, and second, it's a situation that I can learn and grow from.” (Alexander)

> “I think this kind of grand confidence [supports me in adverse times]. [This involves] a trust in one’s self, like a fundamental trust, and not only a fundamental trust in me, myself, but a fundamental trust in life, in the belief that anything that's encountered will turn out for the good.” (Yenay)

Nora described the experience of ‘being guided’ when she’s ‘open’, and that this openness provides the necessary conditions for being spiritually guided:

> “When I'm open, and that almost sounds like I'm going to speak on the more spiritual side, I have such a strong belief that when I'm open, I'm being guided. If I'm guided in that direction, and I can go with it, it's almost like I don't have to make the decisions, but they're made. I know what the right next step is, and I just follow that step. If I'm not in connection, I don't follow and I start feeling frustrated, and I feel like I should be doing more, I should be reaching more, I should have achieved more, I should be earning more, you know. I get into this kind of mindset, and then I know I'm not in tune. Those are the days where I feel that not a lot happens and I think: ‘Okay, I don't even have to practice.’ You know, it's not going to work.”

Nora further describes her process of cultivating the openness that enables spiritual support:

> "I know what I need to do to get me in the mindset of being open. *That* I can answer, but what actually happens from the time I open until I actually am able to make the right next step? I heard someone say, and I thought that was such a beautiful example (and that's what it feels like): you want to grow a tomato plant, so you know you have to plant the seeds, you have to think of soil, you know how you want to treat the soil. You do all these things to create the most incredible environment for this plant, but how does that tomato actually turn from a seed into a tomato? - I don't know how that happens. All I know is that I have an influence on my functioning and on creating the best environment for me to function. But what actually that step is that makes me do what I have to do, I don't know that part. It seems to just happen."

This concludes an overview of the findings of contributors to resilience. Below are findings associated with stressors for musicians, as well as experiences specifically related to COVID-19.

4.3 Musicians' stressors

By far, the largest stressor in the lives of the musicians interviewed arose from internal stressors (33 codings). These internal stressors were identified by the interviewees as perfectionism, the need to remain vulnerable to be artistically authentic, high performance standards, pressure to achieve, performance anxiety, a sense of being disposable, the tendency to avoid challenging situations, and self-doubt. Three of these internal stressors will be reported below.

4.3.1 Internal stressors

4.3.1.1 Perfectionism

Two musicians explicitly cited a tendency towards perfectionism as a major source of stress in their careers. Susan equates perfectionism with imposter syndrome, and speaks of the drive to always strive for better work and results:

> "The biggest stressor has been the pull of perfectionism, you know, the kind of imposter syndrome: it's never good enough, *never* good enough, there's always more work to be done, it can always be better. That, I would say has

> been the biggest stress and risk, both for mental and physical health, if you're putting that much stress on yourself."

Charlotte described a particularly stressful time in her life in which she took over a leadership role in the orchestra. This opportunity arose quickly and unexpectedly due to, for example, senior colleagues' becoming suddenly injured:

> "It was just, you know, a lot of emotional hand-to-mouth that year. It's not necessarily that I was practicing more, but I could never turn my brain off, because, you know, in order to do what we do, to a certain extent, most of us are perfectionists. So, it was exhausting, and I felt like there was no balance in my life. I wasn't prepared for it, just one day I was thrown into it: January 19. This is what happens with trauma, I go back, and I think: 'Oh my god, that's the day my life changed on a dime'."

4.3.1.2 Conflict between mental toughness and vulnerability

Natalie spoke of the stress of remaining vulnerable in order to achieve an artistic authenticity. She further expressed a need for being 'emotionally solid', and receiving social support to enable her to remain emotionally vulnerable:

> "Making ourselves vulnerable on a regular basis is not easy, so you also have to feel emotionally solid about yourself as best as you can, or have a support system who can lift you up in times of trouble when you doubt yourself, which can happen."

Charlotte speaks of her struggle to learn to identify emotions such as fear and vulnerability, and the necessity of learning as an adult how to do so:

> "I didn't know how to name emotions like fear or vulnerability, or things like that, for a long time, and then I had to deal with some pretty major depression … I had to learn how to do all of that [cope with difficult emotions] as an adult. I had to learn how to name my depression. I had to learn how to be vulnerable and accept that that was an important step in then progressing to a place of courage."

4.3.1.3 High standards

Lucas spoke of a sense of obligation and constant pull to be practicing, which he cited as a source of chronic stress:

> "I can summarize [the stress of a pianist's life] by citing Gary Grafman and the title of his autobiography: *I Really Should Be Practicing*. I mean, that sums it up. You have that hanging over you day and night … Where does that come from? I really should be practicing? I guess for everybody that's different. For some people, it comes from ambitious parents. For me, it came from my inner sense of ambition and sense of drive which I had in other aspects of my life as well, coupled with the desire to be liked and not to make a fool of myself."

Alexander mentioned 'playing up to standards' as a source of stress. While external standards certainly do exist, especially in the field of classical music, these standards are not explicitly codified, and are therefore interpreted individually by each musician, which leads the researcher to classify them as primarily an internal source of stress:

> "[A major stressor is] the fear of making mistakes and of not playing up to the standard, to the expected standards, and that's connected to fear, to stage fright, and to public fright."

Susan further clarified the tension between external and internal stressors:

> "There are external forces at work, you have to be able to perform up to a certain standard, you have this performance coming up - say there's a concerto - you sure as heck better be ready to go on. Something like that, so it's both [external and internal], but it is more internal than external."

4.3.2 Excessive work / problems with work-life balance

Excessive work and a lack of balance between work and life were cited eight times as a stressor in the lives of musicians, all of whom were freelance musicians. Margaret summed up this difficulty as such: "Being a musician is pretty much hard work the whole time." She goes on to describe her difficulties as a freelance musician in acquiring work, doing her own administrative duties, and, of course, preparing and performing the music:

> "If I want the good concerts, I will go out and get them. So, I'm always trying to market myself and send emails. Especially if I'm trying to put together a tour for myself, sort of do all of the administration, that's a big stressor. And then, just practicing and getting all the notes, and having to deal with not just the preparation, but always feeling like I'm slightly under the gun in terms of being prepared. And then the stresses of actually being on stage as well. That just makes everything stressful - *everything* is stressful."

Sophia also speaks of the extra-musical work that is integral to life as a freelance musician, including considerations about combining family responsibilities with travel, navigating relationships with a constantly changing roster of colleagues, and a lack of preparedness for such organizational and interpersonal skills in her musical education:

> "Certainly the greatest stress for me has been trying to figure out a [work-life] balance, because being a freelance musician, there's a lot of travel involved, and once you start having a family and a partner who's maybe not as flexible as you are, it gets more difficult. It's not impossible, but it takes a lot more energy, and it makes you, sort of, question the work, like, not just the amount of money you're going to make, but: 'How many hours am I going to spend there?', 'Where am I going to have to travel to?', 'Who am I going to be working with?', 'What are we going to be working on?', and 'What could I be doing instead?'. And certainly, this is something that is part of the whole work, that, I think, is not really recognized as such, but it really is a part of it. And it's a lot of work, and some people do it better than others. It's really not what they teach you when you go to music school."

4.3.3 Financial stressors

As seen above with excessive work and work-life balance issues, freelance musicians interviewed in this study were the only musicians to cite financial difficulties and uncertainties as a stressor.

Isabella acknowledged that choosing to live as a freelancer brought with it the challenge of economic precariousness:

> "Well, very early on I made the choice to be a freelance musician, so the risks of being a freelance musician are, of course, primarily economic, because

> you have no regular source of income. You're dependent on how you do your concerts."

Margaret spoke of feeling compelled to take on work for little or no pay in order to support her career goals, citing that she felt ‘disposable’, meaning, that if she didn’t take an opportunity, another musician would:

> “The stress of not being paid, that’s a big one. [That means] being expected to hustle for concerts and compete with other people for concerts that don't pay, all the while feeling like: ‘I have to take everything that I can manage to get, you know, I want to be performing’. It’s, kind of, the feeling that I'm very disposable. If I don't do something, somebody else will do it.”

Natalie, also a freelance musician, stated that the stress that arose from financial shortages in her work was primarily relational, and not financial, in that it introduced an imbalance and sense of dependency into her marital life:

> “There's also economic stressors. I'm in a fortunate situation with [my husband] who has good sustainable employment, so that I have some freedom. But, you know, there is the stress of him being the primary money-maker, and so I don't feel as empowered by myself because I know that I'm in that dependent situation, and so, sometimes I wish that there wasn't that dynamic, but at the same time, I see that it gives me freedom. So, it's one of those stressors that we have to keep talking about, and making sure that it doesn't affect how we are together.”

4.3.4 Difficulties with colleagues

The six codings for ‘difficulties with colleagues’ were primarily from members of an orchestra. Charlotte described a forced intimacy with orchestral colleagues she described as an ‘arranged marriage’ and a ‘dysfunctional family’:

> "One thing that orchestras like to call themselves, we like to say that we're a family. But, you know, families are complicated, and families are not necessarily safe and wonderful places to be. They come with a raft of issues and baggage. It's like an arranged marriage.”

She further described the difficulties in the orchestra as the result of an overarching and persistently harmful culture within the organization:

> "The culture of [my orchestra] is not great. I think the saddest lesson that I've had to learn is that there's no reward for hard work… I was raised to work really, *really* hard, and to be a good colleague. There's no reward for hard work. The squeaky wheel gets the most grease, for sure… I mean, it *is* a great orchestra, in spite of it all, and we are capable of making really great music, and yes, I do have some great colleagues, but the culture is rotten."

4.3.5 Other stressors

The remaining stressors: *insecurity with job* (5 codings), *injury* (3 codings), *lack of wor*k (2 codings) and *lack of preparation for professional requirments* (1 coding) did not appear significant enough to warrant report, with regard to the amount of codings as well as the actual content in the textual material.

4.4 Findings related specifically to COVID-19

Several questions of the semi-structured interview asked about the effects of COVID-19 on the lives of the interviewees. Findings from these COVID-specific questions as well as from other questions about contributors to resilience in adverse times and stressors in the lives of musicians fell into three categories: 1) Difficulties arising from COVID-19; 2) Benefits arising from COVID-19; and 3) Novel solutions during COVID-19.

4.4.1 Difficulties arising from COVID-19

Difficulties arising from COVID-19 was coded 36 times, equal to the number of codings for *Benefits arising from COVID-19*. Of these codings, the difficulties could be further categorized into 1) Cancelled work / lack of income; 2) Lack of motivation; 3) Emotional burdens; 4) The necessity of interacting online; and 5) The danger of contracting the coronavirus disease through professional work.

4.4.1.1 Cancelled work, lack of income

Isabella described the most stressful aspect of COVID-19 for a freelance musician as the loss of work and income: "The first stressful thing is, of course, having all kinds of

concerts cancelled. Basically, my income from March through the end of August and beyond … has been cancelled."

Sophia spoke about a difficult professional decision that she had previously made to favor orchestral work over freelance ensemble work. She had, in the months preceding COVID-19, cancelled several concerts with a freelance ensemble to enable her to take on a long-term orchestral commitment. This orchestral job included a tour starting at the beginning of September 2020. She described the superior payment, time commitment, and emotional benefits that this job offered, making it clearly a better choice than her freelance ensemble work:

> "[The orchestral job] would have taken place every month for two or three days, which, for me, is perfect. And, it paid better than [the freelance ensemble]. I would have gotten to leave the house and have all the extra emotional goodies that we get when we have a family and we get to travel for work."

Sophia further described the difficult decision-making process in turning down work with the freelance ensemble that she had been involved in founding, and the difficult conversations she had with her colleagues in the ensemble:

> "So, I thought about it, I did the math. I thought about the connections, thought about all of that stuff, and finally I said to [my ensemble]: 'You know, guys, I'm sorry. But I can't do it at this time. Over the course of a year and a half, it's a question of three thousand Euros difference in what I would earn'. That was the reason I gave to [my ensemble]. The other reason for myself was that I wanted to do something different … And then COVID hit and everything with the orchestra got canceled. The [freelance ensemble] projects, which only use between 10 and 15 performers, are still going forward. One of them was done entirely in an online format, which they were rehearsing and filming in April and May with single people in single rooms, and it's totally fine… So, all of the income, *everything* was gone, *everything* that I had for the rest of the year... So, that was pretty intense, and that was really interesting, because I thought I was making a smart decision in terms of who I want to play with, where I want to play, how much money I want to be paid for my work, that kind of stuff. And it *was* [a smart decision], if the world had functioned the way it always had functioned."

Isabella described other financial consequences of COVID-19 that added to the financial precariousness in the months after the outbreak of the pandemic:

> "So, it was not just the concerts being canceled, but usually when I'm on tour, if I'm gone for a long period of time, I rent my apartment out to cover my rent and to have somebody water my flowers while I'm gone. And I had a really interesting woman lined up for a half a year who was going to come here for international studies, and that fell through, so immediately I lost six months of rent."

4.4.1.2 Lack of motivation

Several musicians described a lack of motivation to keep up daily practicing routines. Several of them attributed this lack of motivation to the cancelled concerts during COVID, and, therefore, a loss of meaningful goals to work towards, and others cited limited interactions with colleagues as a contributor to their lack of desire to continue practicing.

Sophia described several issues that made practicing difficult, namely a lack of time due to new projects, a loss of interest and excitement for music, and the inability to play with colleagues. She expressed that the lack of motivation for practicing led to feelings of stress and sadness:

> "I haven't practiced in so long, and it's really stressful for me. I've actually decided to start a small business in a completely different field for multiple reasons, one of them being that it's difficult for me to maintain the level of interest and excitement that I had 10 years ago for my performance. I miss music in some way, I miss playing with other people. Since all of this stuff got canceled, I don't have people that I play chamber music with right now. It's kind of sad. I hope it will change."

Sophia further explored an underlying sense of dread about the uncertainty of the future of classical music post-COVID:

> "For me, it's really difficult to practice if I don't have performances or rehearsals or recordings that I'm looking forward to. It's not entirely true, I mean, if I was just hanging out at home and didn't have other things to work on - to develop - then, I think I would be practicing and that would be lovely. But I sort of made the decision that in the hours that I have [available], that I want to sow the

> seeds for something different and see what happens. I’m very skeptical about what's going to happen in the next years. I think that what's going on now - there's a lot of money being thrown at the scene, especially here [in Germany], but in general there's a lot of money, probably not enough, but still quite a lot in comparison to other places. And I don't think we're going to know for the next two to five years - at some point, we're really going to understand what happened structurally to the classical music scene and the experimental music scene, but we're not going to know it until it's behind us.”

Lucas used the term “practicing into the void” to describe the feeling of practicing without concrete knowledge of when and how concert life would start up again after the pandemic:

> “It's really hard to be motivated to practice right now... I need dates, I need concerts, I need a reason to practice, I need new deadlines … I've discovered that my drive doesn't include just practicing into the void.”

4.4.1.3 Emotional burdens

Margaret described her struggle with difficult emotions in the weeks after the onset of the pandemic. These emotions interfered with her ability to concentrate, practice, and do meaningful work:

> “I do find it hard to work with all of these negative emotions, it’s hard to get anything done ... I lost weeks [after the onset of COVID]: I couldn't practice, I couldn't concentrate, I couldn't do anything meaningful except furiously clean the bathroom and sit on the floor and obsessively read the news. So, I look back at that and think ‘Well, that wasn't very practical‘. But, on the other hand, there was so much going on. I know I was not alone in that I know many, many people who experienced that, but I do wish that I could be better about compartmentalizing those sorts of things, or putting stuff aside enough to do the other things I need to do, so that when I come out of it three weeks later, I'm not thinking: ‘Oh my god, and now I have twice as much to do, and I'm still mad!’, because that is really unhelpful.”

4.4.1.4 Necessity of interacting with audiences, colleagues and students online

Natalie identified stressful aspects of adapting music performance for online platforms and of interacting with colleagues online:

> “Adapting music performance for virtual, online viewing [has been a risk and stressor]. We're learning, it's exciting, but it's also a new skill that we're all having to learn [in my ensemble] … we're also learning how to operate organizationally differently. We also are interacting differently which causes stress between us, because we're not seeing each other in person which can sometimes help alleviate some of the work stress.”

Natalie further spoke of the difficulties of teaching online, questioning her effectiveness as a teacher when engaging with students through the computer:

> “Interacting with my students only online has been very painful for me. I think they're fine with it, because they're just looking at another screen. I worry that I'm as effective as a teacher, so I have stress about that, because teaching is very important to me and I want to make sure that I’m there for my students.”

4.4.1.5 Danger of contracting the coronavirus disease

Susan expressed concerns about contracting the virus through her professional work as an orchestral musician. She was doubtful that the management of her orchestra was as concerned about the players’ health and safety as they were about the safety of the audience and patrons:

> “Of course, in returning to work, there's the health risk that wasn't there before. I played a wedding as a favor to a friend, unpaid, over the weekend, and was horrified when I got there and realized at the location that there was no distancing, no masking. So, that was a very visible risk I haven't encountered before. I expect that I will [encounter this risk again] once I return to performance situations. … I'm not confident in the orchestra's ability to provide the necessary safety measures. I get the feeling that they're more concerned about their audience and patrons’ safety, helping them to feel safe, than to actually cover all the bases with musicians.”

4.4.2 Benefits of COVID-19

Many of the interviewees stated that the effects of COVID were not all negative, and that there were, in fact, some positive consequences of the pandemic. Many of them acknowledged that this viewpoint arose from a privileged and/or fortuitous set of experiences, meaning that they did not experience strong adverse effects of the virus, for example through becoming ill, having ill family-members or friends, or experiencing severe financial hardship. Three trends emerged in the findings indicating positive effects of COVID-19: 1) that the pandemic and resulting lock-down provided a respite from the stress of professional life; 2) that the time arising from the lockdown and loss of concerts could be used for new projects; and 2) that the pandemic is forging progressive and much-needed changes in musical and societal structures.

4.4.2.1 Respite from professional stressors

Several musicians cited burnout as a professional risk. These musicians noted that the forced break from professional obligations arising from the lock-down and loss of employment provided them with much-needed time to recover from professional stressors. Charlotte indicated that reframing the lock-down and cessation of concerts as an "unexpected gift" was part of her strategy to cope with the adverse effects of the pandemic:

> "[COVID-19] is actually an unexpected gift in some ways, because I've been [at my orchestra], this would be the end of my 23rd season. So, I was suffering from no small amount of burnout. And when it first happened, there were a few weeks of just, kind of, disbelief and fear about the general state of the world. But right now, I'm looking upon this as an unexpected gift. I mean, that's one way of trying to make the best of a weird situation. But on the other hand, there's only so much worrying you can do. So, I'm calling this my 'pandemic sabbatical' and I actually haven't played in a couple months because I've never had this opportunity as a professional musician."

Charlotte describes the stress she normally experiences in daily contact with colleagues, indicating that she identifies as an introvert, which has been a helpful personality trait during the months following the COVID-19 outbreak. For Charlotte, the lockdown showed her that her daily social interactions with colleagues pre-COVID had been an underlying and significant source of stress:

> "I realize that I am, believe it or not, kind of an introvert, so it hasn't been hard for me to hunker down … being on lockdown wasn't bad. I really enjoyed it. I didn't realize how exhausting it had been for me to have to spend time around people that I wasn't choosing to spend time around. And being able to cherry pick all of my social interactions has been such a gift. So, I think these days, being an introvert has been helpful. In the before times, being an introvert was a little stressful. "

Similarly to Charlotte, Isabella describes a cognitive reframing of the difficulties of COVID through acceptance, resulting in a much-needed break from professional life, and an increasing trust that things will work out in the end:

> "I've also been trying to teach myself that I'm allowed to slow down, I don't have to be active all the time, I don't have to use this COVID time to learn 43 new multiphonics and get out all of my online [teaching] stuff, and, pretty quickly, I accepted that and decided: 'Okay, this is where I am.' I was just completely burned-out, because I've been touring, basically, non-stop for years and I needed a break anyway. [Now] I'm much more trusting that things are going to work out okay."

4.4.2.2 Increased time for new activities

Sophia described above that she was using the COVID time to start a new (non-music) professional venture (see chapter 4.4.1.1). Yenay described working on a new instrument – the organ – during the months after the COVID outbreak:

> "I've played the organ for more than 20 years as an amateur. I started as a student with organ playing, and I kept this hobby. Since COVID, I started to practice regularly, also with the pedals … I was really appreciative about this experience, because you are really like a beginner. I always like to do something, to learn something, as a beginner, even if I don't do very well, like Tai Chi or Pilates or languages … I also thought if it weren't because of this special situation, I might [not have had] this kind of musical experience and discovery."

4.4.2.3 COVID as a driver for musical and societal change

Several musicians indicated that COVID-19 exposed fault lines in the musical and general society that were already in need of change, indicating that COVID-19 could be viewed as a driver for much-needed musical and societal change. Susan expressed the idea that the classical musical culture needed to develop beyond merely presenting 'museum-pieces', meaning standard repertoire consisting of white, male, Eurocentric works. She indicated that a cultural reorganizational process arising from the economic and social consequences of COVID would, by necessity, occur:

> "So, if we do survive, I think it's actually going to be great in really propelling the artform into the 21st century as far as equity, inclusion, diversity, all these things. Because, you know, 'museum piece' - that was so '20th century', right?"

Alexander challenged the idea that 'going back to normal' was a desirable outcome after the COVID-crisis, indicating that the crisis exposed elements in the global societal organization that were badly in need of reform:

> "For some people, their hope is located in the belief that at some point we could go back [to normal], we could trace back to what was there before. But I don't think so. I think we are apt to change everything - in our economic system, in our work and occupational systems, in our educational system, in our welfare system, in our health system - every system has gone through massive changes. And, I think in our leisure and traveling and habits, everything has changed and will change and maybe it's for the best in some aspects, because I think that the system really needed this change, needed some change that hadn't yet occurred, and it occurred due to an external cause. So, I'm not necessarily seeing [COVID] as a bad thing."

Mia spoke of the COVID crisis increasing her empathic abilities for understanding other people's problems, for example, the problems of those who are immunocompromised:

> Now I think about wearing a mask during flu season: 'What a great idea! Why haven't we done that before?', you know, things like that, and I never thought about it until somebody was saying: 'You know, I'm immunocompromised. [COVID-19] is like the flu season for me. I'm just as worried during flu season.' And I realized that I didn't know that that was something people experienced, it just never came into my head. So, I would hope that other people might have

> gained that same kind of cognizance of other people's well-being, and start doing things - there's no penalty for *not* doing it - but doing it just creates a better society and a better type of mutual care for strangers and communities in general."

4.4.3 Novel solutions to problems presented by COVID-19

There were several statements by the interviewees indicating that the pandemic, together with the lock-down and lost opportunities for in-person concerts, rehearsals and lessons, provided an opportunity to develop new solutions to these challenges. Most of these solutions involved developing skills in unfamiliar technologies and unconventional presentation procedures for concerts, lessons, and rehearsals.

Margaret described the influence of the popular video-conferencing platform Zoom, indicating that it would continue to exert an influence on how concerts were held post-pandemic, while expressing hope that there would continue to be a place for live concerts in the future:

> "I think Zoom is here to stay. I so much hope that it will never replace live concerts, but I think it's something that we're going to have to learn how to adapt to and deal with. And indeed, if it can help give musicians work for places that they wouldn't have been able to go or can't go anymore, I think that is a good thing … I did one Zoom concert (oh my god it was stressful) in June. But, I have a lecture recital for a group in Connecticut in February but I'll be in Sweden, but it's like: 'Oh, but I can still do it!', because the idea of being able to reach new audiences through this is nice".

Nora described her transition from an initial luddite-like aversion to teaching online, to an acceptance of the practice of online teaching, noting that there were opportunities through this necessary shift that enabled her growth and development as a teacher:

> With teaching, I had to learn [how to use online technology]. I've always been a bit stubborn and sort of behind the times when it comes to technology, and I've always been really like: 'I will *never* do online lessons.' I'm really old-fashioned … So, for me it was threatening when I heard people talking about: 'Oh yeah, well, at some point the government will close things down and say that even teaching for musicians is not possible face-to-face'. So, I thought: 'Oh god, now

> I have to really look into that whole technical stuff.', and 'What's going to happen? How am I going to be able to deal with it? How are my students going to react to it? What will the quality of the lessons be?' … In reality, I found that there were just a couple of students that had difficulty with it, but the majority did extremely well. And, I've also recognized that, for me, it's [about] finding ways of being creative and aware: 'What do I need? How can I do this? How can I improve the quality of these lessons? How can I communicate in a different way?' I realize, when I teach people [in person], I sing, I touch them, I clap, I talk while they're playing. And now with this whole Zoom thing … if you both talk at the same time, or one plays and one talks, then you get this distortion. So, I had to really think about getting the students more engaged verbally. You explain things to them, and they have to listen, and then they have to process that on their side, without me being there and doing it with them. So, I was really surprised, pleasantly surprised, at how positively and how well people picked things up, and how well I was able to deal with it."

Mia spoke of online teaching opening up possibilities for engaging musically with 'disenfranchised' students, students who lacked the financial or other resources to participate in music instruction. She spoke of online teaching as a tool for providing equal-opportunity teaching to students who she may have not had access to through the traditional model of face-to-face instruction:

> "For me, as a young [teaching] professional, I think about creating things that are easy to access, and can be accessed by most anyone with internet, that can benefit their playing or benefit their ear [listening abilities]. So, doing things like sending playlists, and saying: 'Hey! Here are some clarinetists you might think about listening to.', or saying: 'Hey! Let's warm up together.'. You turn on a metronome when you play with the video. And you say: 'Have you ever been asked what a *sound concept* is? Let's talk about a sound concept.'. And providing that access - I initially just started doing it as, sort of, brainstorming for COVID, but I started thinking more about it, and I thought: 'You know, there are so many students that are just totally disenfranchised'. They would have no way to access private lessons, and this kind of thing could be very helpful for people that are … just living life in a way where they don't have access to these things that more privileged students might have."

Natalie spoke more generally about ways in which the COVID-19 pandemic influenced her approach to her professional work, indicating that she engaged in many activities that were, for her, new and in need of development:

> "[During this time, I'm] putting myself out there in new ways. I'm trying to compose, I'm trying to improve on my accordion playing, I put together this [collection of pieces written for me during the pandemic], so I'm working in new ways. That puts me out there in new ways, which is exciting and good, but it's also risky because I'm taking steps that I've never taken before, which is fun and exciting. But I also ask: 'Do I know what I'm doing?'"

5. Discussion

The following chapter will include an overview and interpretation of the findings: contributors to resilience, musicians' stressors, and COVID-19 related themes, and continue onto a critical assessment of the methods employed in this research, a discussion of quality criteria in relationship to the current study, and an outlook for practical applications of this research and possibilities for future research .

5.1 Contributors to Resilience

Contributors to resilience could be categorized into three main categories: personality factors, social support, and external factors. A discussion of the major findings from the text material will be provided below

5.1.1 Personality factors

5.1.1.1 Emotional awareness

The most prominent and often-cited contributors to resilience were personality factors. Within personality factors, *emotional awareness / emotional regulation* was, by far, the most cited contributor to resilience. Musicians described internal processes that involved acceptance and acknowledgment of difficult emotions, and the cognitive reframing of emotions as integral to their ability to bounce back from adversities. The tools used to achieve this emotional regulation included: allowing time to pass to absorb difficult emotions; the transformation of the difficult emotion into something positive or proactive (even

described by one participant as 'righteous fury'); and the cognitive reframing of the difficult emotions. It should be noted that, although the musicians self-described these aspects as contributors to resilience, there is no way of determining within the framework of this thesis if these aspects (such as 'righteous fury') *are* indeed helpful and assessable contributors to long-term resilience. The reliance in this research on musicians' self-report may be viewed as a weakness of the study.

5.1.1.2 Flexibility

Flexibility, and, more specifically, its sub-category 'the ability to learn/adapt to a given situation' was often cited as a contributor to resilience. It seemed important to create this sub-category as a way of providing more precision in the analysis. 'Flexibility' differed from 'the ability to learn/adapt' in that the former ('flexibility') suggested a personality attribute of mental and emotional plasticity and a lack of fixed thought patterns, while the latter ('the ability to learn/adapt') suggested a process involving a certain timeframe, ranging from months to years, in which a more resilient approach to adversities was developed. It is interesting to note that some musicians cited this flexibility or ability to learn and adapt as a maladaptive trait arising out of dysfunctional families in which caregivers did not provide a solid emotional grounding. Nora, for example, spoke against the assumption that the ability to adapt was a sign of strength, suggesting that it was merely a survival mechanism developed in childhood, something she fundamentally questioned and strove to modify in her adult life.

5.1.1.3 Cognitive focus

The trait cognitive focus did *not* appear to be a significant contributor to resilience, but an interesting sub-category emerged in the findings that seemed particularly meaningful for classical musicians: *discipline / the ability to set and keep goals.* Again, it seemed important to differentiate 'cognitive focus' which could emerge as an adaptive skill in unsettling, disturbing, or disrupting situations (such as in challenging performance situations) from 'discipline / the ability to set and keep goals', which involved a structure-generating approach highly aligned with the skills developed from practicing an instrument throughout the course of one's childhood and further into and throughout adulthood. Several musicians cited the structure of discipline, setting goals, and creating routines as an integral part of their ability to be resilient. Indeed, an often-cited stressor arising from COVID-19 was the absence or fundamental change to these kinds of structures, a change that many musicians cited as a source of disorientation leading to a lack of motivation and sense of anxiety in their current daily lives.

5.1.1.4 Gratitude

Several musicians expressed gratitude for their perceived luck and relative fortune in both their general professional lives, and/or within the context of the COVID pandemic. It seems questionable to simply state that gratitude is a contributor to resilience, though several studies have attempted this (Gupta & Kumar, 2015; Wilson, 2016), because gratitude, like resilience, is a difficult construct to define. Fitzgerald (1998, p. 120) identified three components of gratitude: 1) a sense of appreciation; 2) a sense of goodwill; and 3) a disposition to act that arises from appreciation and goodwill. The fundamental question must be asked: does a person express gratitude (and therefore perhaps experience increased resilience) because the life circumstances have enabled them to do so (for example if someone wins the lottery), or does a person express gratitude (and therefore perhaps experience increased resilience) because they possess the character attribute of gratitude and view their environment as fundamentally more benevolent that a person with less of this character attribute (one person may feel immensely grateful to have steady employment in an orchestra, whereas another person may consider this professional situation to be a misfortune). Despite the difficulties of approaching the construct of gratitude within the context of resilience, it was important to report that several musicians repeatedly expressed gratitude in their life situations when comparing them to others' situations, and that the expression of gratitude was often mentioned in the context of questions identifying contributors to resilience. The role of gratitude in musicians' resilience is a rich topic for future research.

5.1.1.5 Optimism

Optimism was the last personality-based contributor to resilience found in the text material. Whereas some of the interviewees expressed that they were optimistic by nature, and that this optimism was helpful in navigating adversities, some (often the same person) identified an optimistic worldview as a conscious / cognitive *choice* that provided an antidote to feelings of despair or a lack of control.

5.1.1.6 Other personality factors

Other personality factors were identified as contributors to resilience but were not found often in the text material: *drive (internal motivation*), *love of music*, *prosocial behavior*, and *self-efficacy*. Despite the fact that these contributors were not mentioned often, it is important to stress that resilience appears to be a highly individualized construct. Additionally, the purpose of a qualitative research study is to undercover subtle aspects of

lived experience that might be overlooked in quantitative study designs. This is why a short description of findings about these contributors was included in Chapter 4. It is interesting to note that self-efficacy is an important component of models of resilience (see Conner & Davidson, 2003), but it emerged infrequently in these interviews.

5.1.2 Social support

Social support emerged in the interviews as an important contributor to resilience. Collegial support was cited most often, but the intensity and immediacy with which familial support was cited as a contributor to resilience should be taken into account, indicating that familial support (of both biological families and marital / civil-partnerships) was viewed as an important contributor. The third social support that emerged came from friends. It was difficult to delineate social relationships in order to distinguish family from collegial support, as well as collegial support from the support from friends. Musicians often indicated that these boundaries overlapped. An example can be found in Yenay's situation, whose sister is also a musician with whom Yenay often performs. The sister's perceived support in Yenay's professional life stems both from her familial relationship as well as from the professional advice and assistance Yenay's sister provides as a musical collaborator. Another blending of categories emerged between friends and colleagues. Many musicians develop close and long-standing friendships with their closest colleagues, making it difficult to distinguish support derived from friendships as opposed to support derived from collegial assistance.

5.1.3 External factors

Three external supports emerged in the findings: *luck*, *support by non-employer agencies / institutions* and *spiritual support*.

5.1.3.1 Luck

The self-perception of being 'lucky' or 'fortunate' is a construct that is difficult to operationalize, because it can neither be attributed to a personality factor, not attributed to a social or organizational system. One simply 'feels lucky' to be in a particular situation, and this luck is often described as a factor entirely beyond one's control or sphere of influence. Luck is closely related to the expression of gratitude, but distinguished from it, in that luck always implies a minimal or non-existent locus of control. Gratitude exists on a spectrum (with regard to locus of control), sometimes with a lower level of personal

control, and sometimes with a higher degree of control. Gratitude was further distinguished from luck in that it could be present even in 'unlucky' situations, seen in such statements as: 'I'm grateful for the hardships I experienced'.

5.1.3.2 Support of non-employer agencies or organizations

A more easily interpretable and operationalizable contributor to resilience could be found in the support of non-employer agencies or organizations. For three respondents, this system of support was national: the German government with its active social support network and generous arts funding. It is perhaps interesting to note that employers were very rarely cited as contributors to musicians' resilience or systems of support. The absence of this finding should be noted and could perhaps become a theme in further research.

5.1.3.3 Spiritual support

Spiritual support was difficult to identify because it was often cloaked in vague language. Some interviewees were asked to clarify whether or not the support system they had just described was indeed a spiritual support, and these interviewees answered in the affirmative. A possible reason for the lack of clarity in discussing spiritual support may lie in the notion that overt spirituality or religiosity is viewed as a socially undesirable characteristic amongst many musicians.

5.2 Musicians stressors

5.2.1 Internal stressors

The overwhelming predominance of *internal stressors* as perceived sources of stress was surprising to the researcher. Most musicians viewed their own approach, tendency to extreme self-criticism, internal standards, and tendency towards perfectionism as the major source of stress in their professional lives. One should be careful, however, of interpreting this finding too literally. The unanimity with which musicians were apt to blame themselves for the stressors in their professional lives raised a red flag of a systemic tendency amongst musicians to internalize blame. While this may have difficult consequences for a musician's self-esteem, it may also provide musicians with a sense of control over their own well-being. Again, this finding may present an opportunity for future research. Of the internal stressors, *perfectionism*, *a conflict between mental*

toughness and vulnerability, and *high standards* emerged as trends in the text material. Charlotte's statement: "…in order to do what we do, to a certain extent, most of us are perfectionists" was particularly revealing because it suggested an inherent drive toward perfectionism and acceptance of perfectionism as a desirable trait embedded within the professional field. One can ask oneself whether a musician tends to develop perfectionistic tendencies due to strict musical training in early life, or whether a process related to natural selection occurs in which musicians with a tendency towards perfectionism are more likely to find work within the profession. This question lies, unfortunately, outside of the scope of this thesis and may be an interesting inquiry for future research. The internal stressor 'conflict between mental toughness and vulnerability' was interesting because of the relationship to Holmes' (2017) question of whether traits of resilience, for example, mental toughness and emotional stability, may be at odds with socially desirable traits in musicians' cultures such as vulnerability, risk-taking and emotional lability.

5.2.2 Excessive work / problems with work-life balance

A second stressor, though significantly less-cited than internal stressors, was *excessive work / problems with work-life balance*. This stressor appeared often in interviews with freelance musicians who engage in so-called 'portfolio careers': careers that consist of several different types of activities, for example, performing, teaching, and administration of an ensemble. A few of the freelance musicians spoke of the urgent need for extra-musical skills (such as networking, financial skills and career management), and stated that they were not adequately prepared by their formal musical training for this this type of work and needed to acquire the necessary skills throughout the course of their careers in order to be successful at these extra-musical tasks. Freelancers also cited difficulties in managing careers while concurrently raising a family.

5.2.3 Financial stressors

Financial stressors were, again, mostly cited by freelance musicians in these interviews. Often musicians spoke of having had to make a choice between financial security and artistic freedom. The freelance musicians indicated that they enjoyed a relative sense of artistic freedom in their work, but suffered from economic precariousness. This led them to often feel obliged to take on work that was not artistically interesting, but would rather provide financial stability for the time being. Freelance musicians cited more financial uncertainties during COVID-19 than members of orchestras.

On the other hand, the stressor: ‘difficulties with colleagues’ was cited predominantly by members of an orchestra. For the members of orchestras, difficulties with colleagues, and perceived problems with the organizational culture of their orchestra were major sources of stress.

5.3 COVID-19 and its impact on musicians

The findings directly related to COVID-19 were divided into three categories: *difficulties, benefits,* and *novel solutions*. Of the difficulties, five trends emerged in the text material, in order of importance: 1) cancelled work / lack of income; 2) lack of motivation; 3) emotional burdens; 4) the necessity of interacting online; and 5) the danger of contracting the coronavirus disease through professional work.

5.3.1 Difficulties of COVID-19

The text excerpts displaying the difficulties arising from canceled work or lack of income were presented with lengthy quotes. The researcher chose to include long quotes (especially from Sophia) in order to present a nuanced display of the subtle and extensive difficulties inherent in the process of acquiring work, maintaining professional connections, and dealing with the loss of work. It was important to adequately represent the kinds of mental calculations that went into deciding which kind of work to favor, and to provide context for strong statements such as: “I thought I was making a smart decision ... it *was* [a smart decision], if the world had functioned the way it always had functioned.“ It appears to the researcher that COVID-19 has initially affected freelance musicians more strongly than those with employment contracts with stable arts institutions. This is, most likely, an expected outcome, as it is clear to most of the interviewees that freelance work is fraught with professional and financial insecurities. Whereas Charlotte described working in her orchestra as a safe and steady source of employment: “I belong to *the* [most prominent] arts organization in town. I mean, this is as close to corporate as you can get in the music world, right?”; Isabella described her choice to live as a freelancer in this way: “well, very early on I made the choice to be a freelance musician, so the risks of being a freelance musician are, of course, primarily economic because you have no regular source of income. You're dependent on how you do your concerts.”. It should be mentioned that COVID-19 is still impacting the arts communities and will continue to do so well into the future. It is possible that the financial impact may be felt in the future even by employees of well-established arts organizations.

While canceled work and a lack of income were the most prominent difficulty mentioned during the COVID crisis, several musicians spoke of a sense of disorientation arising from a lack of structure in their daily lives. This structure had previously come from concert-planning, daily rehearsals, and work toward future projects. Several musicians mentioned that without the structure of future projects, it was difficult to maintain the discipline necessary for daily practice. Lucas stated concisely: “I've discovered that my drive doesn't include just practicing into the void.” The COVID-19 pandemic has fundamentally disrupted the everyday schedules of all interviewed musicians, especially during the weeks of lockdown, but also beyond as concert life begins to start again, or concerts are morphed into other formats (online concerts, for example). For some musicians, this disruption may have exposed an underlying sense of burnout, and they feel unable to generate the energy to continue with daily practice, though for some musicians, the lack of motivation to practice presents an additional layer of stress, because this may be the longest break they’ve taken from practicing since they began playing as children, and they are entering into emotional ‘unchartered territory’.

Other difficulties related to the COVID-19 pandemic include increased emotional burdens, the necessity of conducting professional activities online, and a perceived susceptibility to contracting the virus through professional activities.

5.3.2 Benefits of COVID-19

It may come as a surprise that several musicians noted benefits of COVID-19 on their professional lives and mental health. It is imperative to mentioned here that none of the interviewees stated that they had either contracted the virus themselves or had a close member of their family or friends who had contracted the virus. The most often cited benefit of the COVID-19 pandemic was that it forced the musicians to take a break from much of their professional activities, especially in the times of strict lockdown. For several musicians, COVID revealed something about their personality or professional situation that they had not yet realized, for example: Charlotte had not realized how much strain arose from daily contact with difficult colleagues until she had what she called a ‘pandemic sabbatical’. For others, the pandemic showed them that the pace of their previous lives was unsustainable and might result in long-term adverse health consequences, and they learned during the pandemic to allow themselves to take more breaks from their professional activities. Some musicians took up new activities, such as a hobby (for example Yenay’s learning to play the organ) or as a possible new (side) profession (for example, Sophia’s venturing out into a new side-business because of fundamental doubts about the future of the music scene).

Some musicians spoke in general, societal, and altruistic terms about potential beneficial outcomes from the pandemic. These musicians expressed that there were fundamental flaws in our systems (either in terms of music-cultural, or larger societal systems) that were in profound need of change. They viewed the pandemic as a painful but perhaps necessary driver of change in the world.

5.3.3 Novel solutions to problems

The months following the outbreak of COVID-19 forced many of the interviewees to adapt quickly to the new challenges they were confronted with. This need for quick change was viewed positively by several musicians, in that they acquired new skills (for example, teaching and presenting concerts online), and reassessed habitual patterns in their professional activities (for example, providing more verbal input for students instead of merely playing for the students).
Some musicians described the pandemic as a motivating factor for 'stepping out of their comfort zones', allowing them to engage in new online platforms and presentation formats.

5.4 Study design

The following section will address the researcher's perceived strengths and weaknesses of the study's design. The qualitative approach enables an in-depth, nuanced and subtle analysis of the text, bringing attention to fine-grained textual interpretations that might otherwise be lost in quantitative designs that emphasize clear measurables. A inherent danger in qualitative design is the tendency to *not* "see the forest for the trees", meaning that much attention is allocated to detailed descriptions of text fragments, resulting in an inability to form a coherent and precise narrative of the findings. The researcher hopes that the attempt of providing hierarchical descriptions of contributors to resilience, musicians' stressors, and specific experiences of COVID-19 can provide clear and satisfying answers for the original research questions.

Another concern in the study design is whether the quantity of codings can be viewed as meaningful. As mentioned above, the findings were organized largely according to how many codings of each factor existed. For example, more attention was allocated to 'internal stressors' (33 codings) than 'injury' (3 codings). Though injury may occur less frequently than internal stressors such as perfectionism, its impact on the musician can be profound and devastating. There is good reason to question the approach of

allocating more attention to factors with more codings, especially in a qualitative study design in which the individuality of each participant's experience is respected.

A final question of the study design involved the role and usage of the CD-RISC-10 inventory. The inventory was originally intended as a tool for selecting musicians with high resilience (CD-RISC-10 ≥ 33). This threshold had to be lowered for the present study because the majority of respondents did not surpass the original threshold. The CD-RISC-10 average for the entire sample was 29.06/40, and for those selected for the interview 30.73/40. There may have been ways to use the CD-RISC-10 scale more effectively for this study, for example, through examining correlations with CD-RISC-10 scores and certain variables (e.g. social support or emotional regulation). However, this would have increased the scale of the present study to dimensions inappropriate for a master's thesis. This mixed-methods study design may be another area of interest for future research.

5.5 Quality Criteria

In qualitative research, as with quantitative research, the three most important quality criteria are 1) objectivity, 2) reliability, and 3) validity. Each of these three quality criteria will be discussed below with regard to the present study.

5.5.1 Objectivity

The quality criteria 'objectivity' asks to what extent the methodology is transparent and objective in its implementation and in the textual evaluation. In the present study, the methodology was described at length in Chapter 3, with examples from extant literature to provide a precedent and justification for the approach taken. One area in which the objectivity may not meet the highest scientific standards is in the recruitment of study participants. Because of the specificity of the participation requirements (professional classical musicians during COVID-19), the researcher was personally involved in the recruitment and selection of the participants, many of whom were personal contacts and former colleagues. This may have had a detrimental effect on the objectivity of the study.

5.5.2 Reliability

The quality criteria 'reliability' can be described simply as the likelihood that another researcher investigating the same issue would derive the same or similar findings. In qualitative research this is often referred to as 'dependability'. Though reliability is inherently

difficult to assess in qualitative study designs because of the low number of study participants, the specificity of the research questions, and the insistence on respecting and reporting each participant's individual lived experience, it is the researcher's hope that similar investigations by other researchers would yield similar findings. The reason for this hope is the reliance on questions in the semi-structured interview based on well-tested theoretical precedents, such as the CD-RISC-10, and previous studies investigating contributors to resilience in musicians and other populations (Vaag, Giaever & Bjerkeset, 2013; Theron & Theron, 2010).

5.5.3 Validity

The quality criteria 'validity' asks to what extent the methodology employed actually measures the underlying construct (e.g. contributors to resilience, musicians' stressors), and how strongly the results correlate with previous research. In qualitative research, one can distinguish 'credibility' (similar to 'internal validity' in quantitative research) and 'transferability' (related to 'external validity'). In the present study, credibility was a difficult criteria to uphold, in that techniques such as prolonged contact with participants and peer review were not deemed possible by the researcher. With the exception of detailed and extensive feedback from an advisor, the author conducted the present research independently, and therefore may have failed to meet a high standard of credibility in the research. In terms of 'transferability', it is the author's view that a high-degree has been upheld in the present study. This conclusion has been drawn because of similarities in the present study's finding to similar studies, both qualitative and quantitative, involving professional musicians. In particular, the findings that musicians experience a high degree of internal stressors such as 'the conflict between mental toughness and vulnerability' (Holmes, 2017), perfectionism (Kenny & Ackermann, 2009; Evans, 1998) and the findings that musicians experience financial uncertainties (Vaag, Giæver, & Bjerkeset, 2014; Guptil, 2011) correspond strongly to previous research.

5.6 Implications for practice in musicians' health and prevention psychology

The present study can be beneficial in practice with musicians by revealing resources that contribute to musicians' resilience, as well as exposing sources of stress in the lives of musicians, in particular in the time of the COVID-19 pandemic. The study serves to emphasize the concept of resilience as a dynamic process mediated by personality factors, social support and situational elements. In practice, this could imply using a resources-oriented approach identifying inherent personality strengths, as well as sources

of social and external support systems to enhance a resilient response to adversity. The present research is also helpful in identifying sources of stress for musicians, in particular internal sources of stress, which could be addressed using tools derived from cognitive-behavioral therapy. Assisting clients with improving social and external sources of support could be facilitated through systemic approaches.

5.7 Outlook and conclusion

It has been well documented that the career of a professional classical musician is fraught with psychosocial and somatic stressors that may lead to profoundly difficult situations throughout the course of a musician's career. The additional stress of a global pandemic (COVID-19) puts a heightened burden on musicians already made vulnerable by psychological stressors, social difficulties, employment and financial uncertainties, and physical injuries or disorders. Within the context of this potentially devastating time for musicians, the present research identified contributors to resilience, most prominently personality factors (i.e. emotional regulation/emotional awareness, the ability to learn/adapt to a given situation, and discipline/the ability to set and keep goals), social support by colleagues, family, and friends, and external supports (such as support by non-employer agencies or organizations and spiritual support). Equally insightful was the identification of musicians' stressors (particularly internal stressors such as perfectionism, high-standards, or performance anxiety) and an overview of the emotional and experiential landscape of musicians in the context of COVID-19.

The subject of musicians' resilience is an area with a great potential for future research due to a lack of currently available literature. Whereas there are many studies investigating musicians' psychological and physiological disorders, salutogenetic and resource-oriented studies are lacking. Without the ability to determine where and how musicians derive strength, and where systems of support can be found within musicians' cultures, only an incomplete offer of psychosocial assistance can be presented to musicians. Identifying sources of strength and contributors to resilience may in the end provide musicians with a more holistic array of support. This thesis ends with a quote of the exceptionally resilient composer Charles Ives about a fully-integrated approach to art and life, which perhaps can be interpreted in this context as a plea for qualitative research methods intended to capture a rich and nuanced array of lived experiences: "The fabric of existence weaves itself whole. You cannot set art off in a corner and hope for it to have vitality, reality, and substance... It comes directly out of the heart of the experience of life and thinking about life and living life."

Appendix 1: Structure Tree: Contributors to Resilience

Contributors to Resilience		
Dimension	**Category**	**Indicators**
Personality factors	Flexibility	Ability to adapt to changes, bounce back after adversities
	Self-efficacy	Belief that one can cope with difficult situations, positive assessment of stress ("stressful situations make one stronger"), belief in one's emotional strength
	Emotional regulation	Ability to absorb and regulate difficult emotions
	Optimism	One can find humor in difficult situations, not be discouraged by failure, the belief in a benevolent world and future
	Cognitive focus	Ability to stay focused and think clearly, esp. under difficult and high-pressure situations
Social support	Support of family	Identifying family members as sources of emotional, systemic (i.e. providing childcare, help with domestic chores, taking over responsibilities etc.), and/or financial support
	Support of friends	Identifying friends as sources of emotional, systemic, and/or financial support
	Support of colleagues	Identifying colleagues as sources of emotional, systemic, and/or financial support

External support systems	Support provided by employer	Receiving worker's compensation, assurance of stable employment during crisis, culture of support within employer organization
	Support by other agencies, organizations (for example national or local relief agencies)	Receiving financial and in-kind donations by private foundations, governmental support
	Spiritual support	Support derived from attachment to spiritual tradition, sense of coherence, meaning

Appendix 2: Interview Guideline

1 Introduction

- Expressing thanks
- Giving an indication of time needed for main interview (c. 60 minutes)
- Requesting to record the interview
- Declaration of confidential use of the information (names and identifying information will be changed)

2 General questions: The life of a musician

Intention: inviting participant to speak freely and with ease about life events, developing a narrative, several contributors to resilience may already be elucidated through this process that can be clarified and contextualized later in the interview.

Questions:

- How would you describe to a non-musician what it means to be a professional musician?
- What risks and/or stressors have you encountered in your career as a musician prior to COVID19?
- What risks and/or stressors have you encountered in your career as a musician since COVID19?

3 Specific questions

3.1 Personality Factors

(derived from 5 factors of CD-RISC resilience scale: flexibility, self-efficacy, emotional regulation, optimism, cognitive focus).

All participants should be asked several questions assessing personality traits contributing to resilience. However, if the interviewer senses that the majority of the support

system lies in external forms of support, more emphasis can be placed on questions addressing external forms of support.

Questions (derived from CD-RISC-10)

3.1.1 Flexibility

Questions: How do you adapt when changes in life occur? (CD-RISC 1)
How would you describe your ability to bounce back after adversities such as illness, injury or other hardships? (CD-RISC-5)

3.1.2 Self-efficacy

Questions: Do you feel you can deal with whatever comes your way? (CD-RISC 2)
How do you view dealing with stress? (in other words: Is stress something positive or negative for you?) (CD-RISC 4)
How would you describe yourself in terms of dealing with life's challenges and difficulties? (CD-RISC 9)

3.1.3 Emotional regulation

Question: How do you handle unpleasant or painful feelings, like sadness, fear and anger? (CD-RISC-10)

3.1.4 Optimism

Questions: What aspects of your personality help when faced with problems? (CD-RISC 3)
How do you rate your ability to achieve your goals, even when there are obstacles? (CD-RISC 6)

3.1.5 Cognitive Focus

Question: How would you describe your ability to stay focused and think clearly under pressure? (CD-RISC 7)

3.2 Social support

Intention: identifying a generalized sense of where musicians sense strongest support systems and sources of resilience (i.e. governmental assistance, family, employer, spirituality, one's own abilities). These questions should show if more time in the interview should be spent discussing external support systems (social or employment / other organizations) or with internal personality attributes.

General contributing factors:

- What supports you most in your work as a musician? AS A PROBE: Why?
- How does this support affect you in your ability to work as a musician? (follow-up "how" question to previous "what" question)
- What kinds of things help you maintain your professional abilities under adverse circumstances, such as COVID-19?
- What are the things that help the most in being able to maintain one's professional level or even thrive in the face of adversity?

3.2.1 Support of family

Questions: Do you feel supported in difficult times by your family?

Who supports you in your family?

How do they support you?

3.2.2 Support of friends

Questions: Do you feel supported in difficult times by your friends?

How do your friends support you?

3.2.3 Support of colleagues

Questions: Do you feel supported in difficult times by your colleagues?

How do your colleagues support you?

3.3 External support systems

Question: Are there sources of support outside of your family and friends you benefit from?

What form does this support take? (financial, advice, structural, spiritual, etc.)

How much support have you received from this support system since April 2020?

4 Conclusion and wrap-up

Assessing if there are additional areas needed for the exploration of support systems or contributors to resilience.

Sample questions:

- What helps you the most in navigating difficult times in life?
- Do you believe that COVID-19 will exert a long-term influence on your life? How?
- Do you have any other things you'd like to say about how you deal with adverse situations and circumstances?

Express thanks for interview and wrap-up interview.

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Eidesstattliche Erklärung

Ich versichere, dass ich die vorliegende Arbeit ohne Hilfe Dritter und ohne Benutzung an- derer als der angegebenen Quellen und Hilfsmittel angefertigt und die den benutzten Quellen wörtlich oder inhaltlich entnommenen Stellen als solche kenntlich gemacht habe.

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