UNIVERSITÉ DU QUÉBEC À MONTRÉAL

AN ECOLOGICAL MOMENTARY ASSESSMENT STUDY AIMED AT EXPLORING THE RELATIONSHIP BETWEEN PSYCHOLOGICAL DISTRESS AND VALUED-LIVING AMONG POSTSECONDARY STUDENTS TAKING PART IN THE KORSA WORKSHOPS

DISSERTATION
PRESENTED
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DOCTORATE IN PSYCHOLOGY

BY
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UNIVERSITÉ DU QUÉBEC À MONTRÉAL

L'EXPLORATION, À L'AIDE DE L'ÉVALUATION ÉCOLOGIQUE INSTANTANÉE, DU LIEN ENTRE LA DÉTRESSE PSYCHOLOGIQUE ET LES VALEURS CHEZ DES ÉTUDIANT.E.S POSTSECONDAIRES QUI ONT PARTICIPÉ AUX ATELIERS KORSA

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The line of honour goes to my partner, wife, and deep spiritual friend, Cindy, with whom I have traversed almost half of my life. Without your unwavering support, I would not be the person who “I am”. I am, because we are. Our journey has influenced everything, every, single, thing, and weaves itself into each of the words found here. This is “your” work as much as it is “mine”. May our shared path continue to light the way for others.

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unnoticed. Much of the curiosity that shapes how I look at life was influenced by you. Tam, we are still discovering how to navigate this world together. That dance is one that is never too far from my awareness.

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DEDICATION

To all those who imagine that writing a scientific paper such as a thesis is different from anything else in life, you are right. It is unique in the meeting of creativity and constraint. It is unique in the way that form (the words) flows along with formless (the imperceptible impact that flows from all the human encounters that made up the project).

To all those who imagine that writing a scientific paper such as a thesis is different from anything else in life, you are also so very wrong. To understand this writing process as something that is not enfolded into the container of a more universal law is blinding. In these pages, aversion and craving have been rampant, and the imperfect abandoning of some search for a satisfaction that is not ephemeral has allowed a liberation. In this movement, this thesis becomes no more important or different than any other task: doing the dishes or changing the poop-filled diaper. Allowing ourselves to enter into relationship with these, as with all things, as a practice of shedding layers of resistance and separation brings this INTO life, not apart from life. During the many years that I have been working on this project, life has abounded in all its paradoxical forms. My two beautiful children were born and grew, my mother died, a global pandemic shook the certainty that we held to, and this path of liberation opened more in this ("my") heart-body, allowing for glimpses of grace among all this natural ebb and flow of life. We can all touch this ebb and flow. Touching it, knowing it, moving with it, this is our deepest practice. Please know that it is possible even here, in this task of scientific writing; and that it is so necessary for this life to find its way out of the isolated caverns that scientific rigour may sometimes create.

FOREWORD

Not one, not two. Not one, not two. Not one, not two. In the Buddhist scriptures, there is auspicious meaning in repeating statement three times. And so here, I begin my accompaniment of this journey by repeating this Buddhist Zen koan to you, the reader, and to myself. This koan represents much that I do not yet comprehend in my investigation of life's many experiences. What I can gather is that it points to the non-dual, and therefore interdependent and intertwining nature of things. It points to a way to appreciate objects of experience as distinct, and yet at the same time as integral parts of the whole. From this koan, we can therefore touch upon the very foundational teachings in Buddhist philosophy, mentioned as the three marks of existence. Not one, not two, and so what I consider as self is distinct, and yet a part of the whole, a part of what I consider not self; this is the teaching of *Anatta*. Not one, not two, and so what I can observe is not necessarily what it seems, constantly changing in the flux of the whole; this is the teaching of *Anicca*. Not one, not two, and so what I consider as solid and permanent and able to satisfy me is not as I perceive it, and because of its changing nature and its constant relationship to all other things it is inherently unsatisfactory; this is the teaching of *Dukkha*.

What does any of this have to do with my thesis? Not one, not two? I would have myself convinced that this thesis is the culmination and great work of my more than nine years of doctoral studies, and yet it is only a partial requirement for obtaining my Ph.D., as stated on the first page of this document. Not one, not two. I would have myself convinced that the studies in which I have been involved for all of these years will have an impact on the scientific community, and yet of all of this, one 20-page

article will be printed in a volume of a quarterly journal that publishes 80 studies per year and so be an infinitesimal part of a sea of findings. Not one, not two? I no longer identify myself as an ACT therapist, and yet I am a product of my conditioning, which includes several years of ACT training, of providing ACT-based therapy, and ACT-based groups. Not one, not two? I sit here feeling the pull towards other seemingly important subjects which require my attention and care, and yet I cannot fully engage in them unless this thesis is completed. Not one, not two? I am a part of the story of the journey and life of this ACT-based protocol, and I will see it laid to rest, having offered the final Korsa training only one month ago at the moment that I write this. Is part of me also laid to rest? How is it to write of something that is not necessarily onward leading, that is slowly diminishing in size, inevitably moving towards its demise? Is this not like all things? Not one, not two? Many of the cited studies bring sense to the direction of this project, yet they also uphold a paradigm that I feel is blind to the many mysteries of life that allow for Korsa to be so beautiful and that I want to honour.

This thesis is a journey that is much broader than these pages will be able to suggest. Though you will find many references to influential empirical studies carried out by others, you will unfortunately not be graced by the many other influential aspects that colour the thoughts in my mind and the shape of the sensations that inhabit me as I journeyed through this process. The Dhamma, the poetry, the conversations with spiritual friends, the time spent with my children (two of my greatest teachers), the moments of conveying concepts to students, the many hours of accompanying others in their suffering and discovery through therapy. All of these inflect upon my ability to appreciate and transmit the themes found here. They are, in fact, my lifelines. Without them, these words would have no meaning to me. Knowing that this journey has allowed me to be present in all of these relationships and experiences is a key ingredient in allowing me to come back to this project and struggle to make sense of it in the way that my academic counterparts would have me do. And so, not one, not two, it is important for me that you recognize, in moving forward, that this partial requirement

to the attainment of my Ph.D. is in fact not only so, it is also my salvation, it is my liberation, it touches into what has helped me to loosen the knot blocking access to my intuition, and at the same time it causes friction to those same oppressive burns that have been formed in the continuous circus act requiring me to conform to what others deem just in an unjust society. It is freedom from this conformity, and at the same time it is the noose that keeps unfair systems in place. Not one, not two. Can you be with all of this, as you read on? I cannot help to be, because this is all here, in these fingers that type these words. If you are here, reading with me, then I honour your place alongside me in this journey. Not one, alone, not two.

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RÉSUMÉ

Plusieurs étudiant.e.s postsecondaires éprouvent de la détresse psychologique. Les écrits scientifiques suggèrent que cette détresse serait en partie tributaire du fait qu'ils s'engagent souvent malgré eux dans des actions automatiques, conditionnées et impulsives, plutôt que des actions alignées à leurs valeurs personnelles et susceptibles d'enrichir leur vie. Pour mieux soutenir les étudiant.e.s durant leur cheminement académique et promouvoir leur mieux-être, un nombre grandissant d'établissements postsecondaires offrent dorénavant des interventions basées sur la thérapie d'acceptation et d'engagement (ACT). Issue des thérapies comportementales et cognitives de troisième vague, l'ACT vise notamment à aider les participant.e.s à construire leurs valeurs personnelles et mettre de l'avant des actions afin de faire vivre celles-ci. Au Québec, c'est en partie grâce aux ateliers Korsa (www.korsa.uqam.ca) que les étudiant.e.s peuvent se familiariser avec l'ACT. Dispensés depuis 2012 dans plus d'une vingtaine d'établissements postsecondaires, les ateliers Kosa sont offerts en groupe de manière hebdomadaire durant cinq semaines consécutives. L'objectif de cette étude est d'explorer, à l'aide de la méthode de l'évaluation écologique instantanée (EEI), la relation entre la détresse psychologique des étudiant.e.s postsecondaires qui prennent part aux ateliers Korsa et leur propension à agir en cohérence avec leurs valeurs. Il est postulé que tout au long de l'intervention, le niveau quotidien de détresse psychologique diminuera (H1), que le niveau quotidien de cohérence avec les valeurs augmentera (H2) et que le niveau de détresse psychologique sera inversement proportionnel au niveau de cohérence (H3). La collecte des données a été effectuée à l'aide de journaux de fin de journée (*end-of-day diaries*; EOD) et d'une application pour téléphone intelligent. Elle s'est déroulée durant l'automne 2017 et l'hiver 2018 dans 10 établissements postsecondaires québécois. Au total, trente-huit (n=38) étudiant.e.s ont pris part à cette étude et ont répondu à des questionnaires de EOD à multiples reprises, entre 18 h et 22 h, durant toute la durée de l'intervention (moyenne de 16 questionnaires complétés par étudiant.e). Seulement certains des résultats sont cohérents avec les hypothèses. Le niveau quotidien (ainsi que le niveau moyen) de détresse psychologique n'a pas diminué durant l'intervention ; alors que le niveau quotidien (ainsi que le niveau moyen) de cohérence avec ses valeurs n'a pas augmenté. Par contre, il y a une corrélation entre ces deux variables, suggérant que les gains en ce qui concerne la cohérence avec les valeurs sont associés à une diminution de la détresse psychologique. Les forces et les limites de cette thèse sont discutées dans le dernier chapitre et des pistes de recherche futures sont proposées.

Mots clés : évaluation écologique instantanée, détresse psychologique, valeurs, thérapie d'acceptation et d'engagement, étudiant.e.s postsecondaires.

ABSTRACT

Psychological distress is a serious concern among postsecondary students. Studies show that this distress can be attributed, in part, to the fact that students are often engaged in automatic, conditioned, and impulsive actions; as opposed to actions that are coherent with their values. To help accompany students in traversing their academic journeys, many postsecondary institutions have offered Acceptance and commitment therapy (ACT)-based interventions. These have shown their pertinence and effectiveness in helping alleviate the distress within this student population. Namely, ACT, which is a contextual cognitive behavioural approach, aims to promote well-being by helping people to construct their personal values and put forward actions that help to live in harmony with these values. In Québec, the Korsa program (www.korsa.uqam.ca), has allowed postsecondary students to become more familiar with ACT. Korsa, which has been offered in over 20 postsecondary institutions since 2012, is a series of group-based workshops offered over five consecutive weeks. The goal of this study was to explore the relationship between psychological distress and valued-living using ecological momentary assessments (EMA) with participants of the Korsa workshops. The hypotheses were that throughout the span of the intervention daily levels of psychological distress would decrease (H1); daily levels of valued-living would increase (H2), and that the values of these outcomes would be inversely proportionate to each other (H3). Data collection was carried out using end-of-day diaries (EOD) and a smartphone application across 10 postsecondary institutions during the fall of 2017 and the winter of 2018. A total of 38 students participated in this study, responding to EOD questionnaires multiple times, between 6 p.m. and 10 p.m., throughout the five weeks of the study (an average of 16 completed questionnaires per student). Only some of the results were coherent with the hypotheses. Both daily and average levels of psychological distress and valued living did not change significantly throughout the intervention. However, the two outcomes were inversely proportionate, suggesting that improvements in valued-living are associated with decreases in psychological distress. The strengths and limitations of this thesis, and propositions for future directions of study will be discussed in the last chapter.

Keywords: ecological momentary assessment, psychological distress, valued-living, acceptance and commitment therapy, postsecondary students.

CHAPTER I

RESEARCH PROBLEM

In this chapter, the reader will be introduced to the main themes serving as signposts for the journey of this research project. The table will be set to justify some concerns that prompted the research team to carry out the current study. The state of postsecondary student psychological distress being the main concern for our intervention, it will be alluded to first. This will then lead towards the rational for interventions that address these concerns, and the ways in which to best shape and evaluate them. Furthermore, the intervention program that was developed by our research team will be briefly introduced.

1.1 The Psychological distress “crisis” in postsecondary students

Although it may be of common knowledge that there is a high level of psychological distress in postsecondary students, and some may refer to this as a newly emerging crisis, some authors state that there is not enough solid empirical support for this analogy (Wiens et al., 2020). These authors even find that the levels of distress among postsecondary students as compared to those in the same age range who do not attend

postsecondary institutions are equal; hence the dire situation is not confined within academic walls (Wiens et al., 2020). Nonetheless, there is ample evidence that distress among postsecondary students is at worryingly high levels (e.g., American College Health Association (ACHA), 2019; Institut de la statistique du Québec, 2019; OUCHA, 2009). These reports of postsecondary students' mental health depict grim portraits of their well-being; even demonstrating that this increased distress throughout their college years does not necessarily dampen after these students complete their education and pursue their lives (Bewick et al., 2010). Even if many studies and reports reveal this problem, it remains that postsecondary students find themselves in a drought of psychological support services that can readily and effectively help them (e.g., Auerbach et al., 2016; Commission de la santé mentale du Canada, 2012; Wiens et al., 2020). There is a call to come to the assistance of these students on campus, while doing so in a way that is accessible, effective, and holistic (CACUSS & CMHA, 2013). What is then of key importance is which interventions fit this description and how do we evaluate their impact?

1.2 How to address the distress?

Many studies have attempted to outline the types of interventions that could be considered as appropriate in accompanying postsecondary students' distress (e.g., Conley et al., 2013; Jaworska et al., 2016; Martineau et al., 2017). The measures that need to be taken to address such a large issue require approaches that are comprehensive and systemic, going beyond individual counselling; such as having accessible mental health services, institutional structures that are supportive of mental

health awareness, and initiatives that involve the collective postsecondary institution population in sharing the responsibility (CACUSS & CMHA, 2013). Although the scope of these measures must be wide, there is also a need on the smaller scale to focus on how to best address helping distressed students through postsecondary institution counselling services. Among the possible candidates for effectively helping with psychological distress are interventions that are based on acceptance and commitment therapy (ACT; Hayes et al., 2012). ACT is considered a third-wave cognitive behavioural therapy and has gained a significant amount of empirical support, with research in this framework being bolstered by over 600 randomized controlled trials (RCT) that have been published since 1986 (Association for Contextual Behavioral Science [ACBS], 2021). More specifically, several recent intervention studies have been carried out exploring the effect of ACT-based interventions for postsecondary students, and the results are generally promising (e.g., Krafft et al., 2020; Levin, An, et al., 2020; Mull et al., 2020; Nelson, 2019; Xu et al., 2020).

1.3 ACT on the home front

A group intervention protocol, named Korsa, was developed by our research team to address the distress encountered by postsecondary students. Korsa is an ACT-based intervention, which offers participants five weekly 2.5-hour sessions to accompany students' discovery of how to be with their distress in a different and more easeful way. Several studies have already been carried out to examine both the effects of this protocol and its implementation in academic settings (Grégoire et al., 2016, 2018, 2020; Morin et al., 2020; Nedelcu & Grégoire, 2020; Rondeau et al., 2019). The results of

these studies have been promising—supporting the important clinical effects of this program—and hundreds of students have already been accompanied through the Korsa program in Québec, France, Switzerland, and Belgium. More recently the research team has been brought to adopt novel research designs and data collection tools to examine the experiences of Korsa participants and the mechanisms of change at work in the intervention. These changes in methodology have been used in an attempt to overcome the inherent problems being brought to light regarding the ways in which the scientific community typically carries out research studies (Grégoire et al., 2020).

1.4 Old problems with data collection, and novel solutions

It would seem that these problems in the typical ways of carrying out large-sample research have been made evident for quite some time. It has been over 30 years since authors have pointed to the inherent limitations in using autobiographical memory as the main vector for data collection, due to several biases that naturally occur within this cognitive faculty (e.g., Bradburn et al., 1987; Ross, 1989). The natural difficulty that humans have in recalling events effectively makes it so that the use of typical retrospective self-report questionnaires will systematically bring great bias to research results (Schwarz, 2007; Shiffman et al., 2008). Another problem that also seems to be inherent in these habitual ways of carrying out empirical research is that the differences that are suggested between-persons are not necessarily indicative of changes that occur at the within-person level (Hamaker, 2012; Molenaar, 2004; Snippe et al., 2015). Cluing into the heterogeneity of change processes across individuals is important in intervention studies because this is where information regarding what can be

generalized to the greater population is found (Hamaker, 2012; Molenaar, 2004; Snippe et al., 2015). To determine what can be generalized to the larger population in terms of psychological processes, Hamaker (2012) states that we need to use intensive sampling methods that relay information within the natural context of the person, while also reducing the recall time frame as much as possible.

Although much of this has been known for some time, there is not necessarily much change that is being brought to the usual way of exploring phenomena. However, there are shifts that are occurring, and one of them comes in the form of ecological momentary assessments (EMA), which are a form of the intensive sampling methods that Hamaker (2012) is calling for.

1.5 EMA, the answer we've been "waiting" for?

EMA (also known as experience sampling methodology or intensive longitudinal methods) comprise a range of methods for gathering information about a person. These data collection tools allow for reporting of phenomena of interest—behaviour, affect, etc.—to occur during or closely following an event, and within the natural environment of the research participant (Shiffman et al., 2008; Stone & Shiffman, 2002). These "samples" of phenomena are repeatedly collected over a period of time (thus the reference to "intensive sampling"), then evaluated for their fluctuations to understand and estimate the change process that each individual has experienced (Stone & Shiffman, 2002). These methods allow for more ecological validity in studying phenomena across contexts, not only within laboratory or intervention settings; they

focus on the current and very recent states of participants while reducing the recall time frame; and they allow for an appreciation of the dynamic nature of life in honouring the variations inherent in the phenomena being studied (Shiffman et al., 2008). Interestingly, these methods are not at all "new", being traced to "ancient" methods that used pagers to prompt participants randomly, inviting them to report phenomena in their diaries (Shiffman et al., 2008). Technology, ushered in by the growing use of smart phones, has allowed these methods to increase in complexity and accessibility.

1.6 Moving forward in an informed way

Our research team was confronted to the inherent problems with data collection. As such, an attempt was made to better understand the changes in students' levels of momentary stress, well-being, and psychological flexibility over the course of the Korsa intervention by adopting the EMA methodology. The study by Grégoire and colleagues (2020) showed promising results in demonstrating EMA's ability to capture the fluctuations in Korsa participants' experiences across the intervention. However, the methodology came with its difficulties, which led to limitations in the interpretation of the results. High levels of attrition, low response levels to the prompts sent out to participants, and difficulties in capturing the complexity of the phenomena being studied using a limited number of questions; these were some obstacles which inspired the team to repeat the study after adjusting for these difficulties as much as possible. This is where the current study comes into place, in which end-of-day diaries (EOD)—a variant of EMA—will be used as a way to compensate for some of the above-mentioned difficulties.

The aim of the current study is to explore the between and within-person fluctuation patterns of students' psychological distress and valued-living (a core process in ACT) during the Korsa workshops. More rigorous methods will be undertaken, allowing to palliate for the difficulties met in the previous Korsa study by Grégoire and colleagues (2020). One adaptation will be in focusing questionnaires on more delineated elements of participants' experiences. More will be shared regarding the research objectives in the following sections.

CHAPTER II

CONTEXTUAL AND CONCEPTUAL FRAMEWORK

In this chapter, the stage will begin to be set for considering the pertinence and importance of the current project. Research results indicating the prevalence of psychological distress in postsecondary students and the need for psychological services will be elaborated. Also, the philosophical and theoretical foundations of ACT will be explored to support the use of ACT-based intervention programs as a response to this emergent need for postsecondary student psychological services.

2.1 Important definitions

Two terms that will be constantly referred to in the following text are “psychological distress” and “postsecondary students”. It is important to situate these, for the reader to have some clarity moving forward.

Firstly, stress is a common term that can often be used leisurely in speaking of one’s emotional state when faced with challenges. Psychological distress is also a term that can be used leisurely to encompass many difficult emotional states. It has also been

more precisely operationalized as “a state of emotional suffering characterized by symptoms of depression and anxiety (Drapeau et al., 2012)”. This definition coincides with another definition of the term: a sense of tension, preoccupation or agitation (Lemyre & Tessier, 2003), which together encompass some symptoms of anxiety- and depression-related disorders (American Psychiatric Association, 2016). From these definitions, it can be understood that there is an overlap between psychological distress and the diagnostic categories of anxiety and depressive disorders. However, it is important to understand that psychological distress is not limited to these diagnostic labels, though it may encompass them. This precision is the basis for understanding the term psychological distress as it will be referred to subsequently. In this text, the terms distress and psychological distress will be used interchangeably.

Secondly, though “university student” is clear as a reference, some confusion can arise when reference is made to “college”, as it is often a term used interchangeably for university. However, in Québec, college typically refers to the CEGEP system. Since CEGEP proceeds high school’s grade 11, there are college students in this province that are younger than those referred to as college students in the U.S.A. or other provinces, since they attend high school until grade 12. Evidently, there is overlap in these populations, as CEGEP programs span at least two years. Hence, for this text, both university, college, and CEGEP students will be referred to as postsecondary students, as all are included in the population that was the focus of this study.

2.2 The prevalence of psychological distress in postsecondary students

Though psychological distress is a phenomenon that is experienced by many people, it could be argued that postsecondary students are particularly vulnerable, in part because of several transitions in which they find themselves, such as going from adolescence into adulthood, from dependence on parents towards autonomy, and from school life towards eventual careers (Worth, 2009). Furthermore, nearly 75% of all mental health issues appear before the age of 24 (Kessler et al., 2007), demonstrating that the adolescents and young adults in postsecondary education are undertaking a particularly trying stage of life. In Québec, the vulnerability of this group is reflected in that young adults (15 to 29 years old) report 10% more psychological distress than adults in the 30-year-and-over age range (Institut de la Statistique du Québec, 2019).

The transitions experienced by postsecondary students—along with many other stresses—coupled with the performance expectations that are interwoven into academic institutions, can be a combination that brings about important psychological distress (OUCHA, 2009). This distress has been linked to lower academic performance in students and higher dropout rates, reflecting the difficulties that these tenuous conditions can create (Auerbach et al., 2016; Byrd & McKinney, 2012; Martin, 2010; Schwarz, 2007). The National College Health Assessment study, which evaluated 55,284 students across 58 different Canadian postsecondary institutions, also reflects the vulnerability of this population (ACHA, 2019). In this study, many students reported that psychological distress had negative effects on their academic performance in the last year—these negative effects being anything from receiving a poor grade to the complete disruption of their studies. Included in these accounts were 34.6% of students who reported that their academic performance had been negatively affected

by anxiety, 24.2% who reported being affected by depression, and 41.9% who reported negative effects from stress (ACHA, 2019). Furthermore, a large number of students in this study reported experiencing psychological distress within the last year. Many (88.2%) had felt overwhelmed by all that they had to do, 87.6% had felt mentally exhausted, and 63.6% had felt that things were hopeless (ACHA, 2019). During these COVID-19 pandemic times, these difficulties have been found to be accentuated by social isolation among Québec postsecondary students (Bérard et al., 2021). Finally, not only is psychological distress widespread in postsecondary institutions, it is the very nature of academic activities themselves that is regarded as the most important source of stress among Québec students (Baraldi et al., 2015). This further impresses upon us the tension inherent to this academic context.

2.3 Prevention programs for postsecondary students

These statistics are a call for incentives in the prevention and treatment of postsecondary students' psychological distress; services that are in urgent need of being developed as per a report by the Mental Health Commission of Canada (2012). This need is also registered on the international level, as Auerbach and colleagues (2016) have shown in their study of college students across 21 countries. This study suggests how mental health disorders are related to college attrition, and how most of the students affected by these disorders lack the support needed to help address their difficulties (Auerbach et al., 2016). A recent review paper by Eleftheriades and colleagues (2020) also informs us that addressing mental health is increasingly important in postsecondary settings. Even when these results of studies regarding the

levels of distress in postsecondary students are being questioned as to their validity, rigorous study methodologies exploring this have still found that there is a need for more help in accompanying student distress (Wiens et al., 2020).

In considering this need, an important question is which kind of interventions are required? In their review of 83 controlled mental health interventions in the postsecondary student population, Conley and colleagues (2013) found that skill-oriented preventive programs—particularly those including supervised practice—have been effective in bringing about significant change. Specifically, mindfulness-based and cognitive-behavioural interventions were the most effective in modifying outcomes such as emotional distress and social and emotional skills (Conley et al., 2013). A more recent review noted very similar conclusions (Martineau et al., 2017).

Reavley and Jorm (2010) state that the school setting is a particularly useful context in which these preventative interventions can be provided, namely because the symptoms of psychological distress are often experienced while participating in activities involved with student life. The Ontario College and University Health Association also point to the importance of offering preventative interventions in the school setting, noting how this can help to increase accessibility to services and reduce the stigma associated with mental health disorders (OUCHA, 2009). Regehr and colleagues (2013) recommend that these preventative interventions be focused on reaching a large number of students, such as by using group interventions. Jaworska and colleagues (2016) also supported the integration of group interventions to help on-campus mental health promotion in the context of limited individual counselling services. Pointing towards a similar recommendation, Bassett and colleagues (2016) suggest that postsecondary settings create opportunities for students with disabilities to connect with each other in sharing their common experiences as a way to reinforce their autonomy. Group interventions were also recommended in a guide to a systemic approach for post-secondary student mental health (CACUSS & CMHA, 2013).

Furthermore, instead of aiming these prevention programs at specific symptom reduction targets, Bramesfeld and colleagues (2006) recommend that the most effective target remains the development of more universal personal and social abilities. Dozois and colleagues (2009) further support this view, stating that prevention programs that are geared towards a spectrum of difficulties are more generalizable, efficient, and cost-effective. Levin and colleagues (2014) emphasize the overwhelming nature in terms of complexity and cost when it comes to implementing programs geared towards very specific problems.

Taken together, these studies point to a preferable clinical orientation for preventative programs that would consist of transdiagnostic (vs. symptom specific) group interventions. Acceptance and commitment therapy (ACT)—which is considered a contextual cognitive behavioural therapy (CBT), also referred to as acceptance and mindfulness-based therapy, or third-wave CBT (Hayes et al., 2012)—could fulfill these recommendations.

2.4 Acceptance and commitment therapy as a skillful means to heal

There have been over 600 published RCTs that support the use of ACT for many conditions (e.g., anxiety, chronic pain, depression, substance abuse) and in many contexts (e.g., academic settings, workplaces, inpatient psychiatry, rehabilitation settings); with a growing number of those studying the postsecondary student population (ACBS, 2021). These and other types of studies support the idea that ACT-based prevention programs are well tailored to respond to the alarming levels of

psychological distress among postsecondary students, including several studies exploring the ACT-based intervention program that our team developed (see Korsa project below). Many of the recent studies will be considered in detail after contextualizing the reader with an overview of the basic tenets of ACT.

2.4.1 Contextual cognitive behavioural therapy briefly explained

ACT is considered a contextual CBT approach, whose philosophical underpinnings take root in functional contextualism. The tenets of functional contextualism purport that psychological experience is considered as an interaction between the person and their broad context—their history and their actual situation (Hayes et al., 2012). As such, one's psychological experience (e.g., one's thoughts, emotions, sensations) is understood as stemming from a multiplicity of previous events and conditions; and so is not solely the product of one's volition, thus being interdependent with several factors outside one's control (Hayes et al., 2012). The goal of this framework is to be able to influence the interaction between the person and their context with "precision, scope, and depth" (Hayes et al., 2012). In this framework, the "truth" of whether or not the approach influenced the interaction is seen from a pragmatic standpoint (Hayes et al., 2012). As such, interventions are considered as helpful in achieving a particular goal or not; and in this way their level of helpfulness is flexibly determined depending on the context and goals of the individual (Hayes et al., 2012).

With this perspective as a starting point, Hayes and colleagues (2011) point out several commonalities among most contextual CBT approaches, such as dialectical behaviour

therapy, functional analytic psychotherapy, and mindfulness-based interventions. The first commonality is that they target the context and function of psychological events instead of targeting the content, validity, intensity, or frequency of these events (Hayes et al., 2011). This has the impact of changing one's relationship to these events so that they function in a different, more adaptive way (Hayes et al., 2011). A typical example is that for someone who is struggling with repetitive critical thoughts about themselves, classical CBT might focus on reformulating those thoughts or replacing them; whereas contextual CBT might instead aim to broaden one's experience, focusing on the relationship with those thoughts and their impact, bringing awareness to the sensations they bring in the body, while also situating them within a large spectrum of other thoughts that may arise. All this, while never working on changing the thoughts themselves. Secondly, these contextual approaches can be applied transdiagnostically since their focus is on intrapsychic relationships—such as the relationship with our thoughts—that can apply to any person's situation (Hayes et al., 2011). Thirdly, these approaches often consider psychological elements that are mostly omitted from classical CBT, such as spirituality, meaning, sense of self, and values (Hayes et al., 2011). Furthermore, there are three basic categories for the key processes at work in contextual CBT: psychological openness, awareness and mindfulness—or centredness, and meaningful action—or engagement (Hayes et al., 2011).

It can be appreciated that these common elements point towards approaches that could be used with heterogeneous populations, such as postsecondary students, while focusing on the source of these difficulties, and at the same time remaining open to the unique nature in which they are manifested. The model that was refined by ACT researchers, called the psychological flexibility model, encompasses these ways of appreciating human suffering. However, before exploring this model in more detail, there is one last fundamental element that would be helpful to describe, one that explains how the nature of language shapes one's relationship with suffering. This

interaction, which is of major importance in the psychological flexibility model, is explained by the relational frame theory.

2.4.2 Relational frame theory at a glance

The relational frame theory (RFT; Hayes et al., 2001) is meant to be a source for basic principles that underlie and can be applied to cognitive interventions (Hayes, 2004). This theory proposes that human language and thinking are heavily influenced by how humans learn to arbitrarily form relations between events—i.e., thoughts, behaviours, emotions, people, places, etc. (Hayes, 2004). Though many organisms can relate events together based on their inherent physical properties or through direct training, humans can relate events together even when their physical properties would not suggest that they are related, and without any direct training—basing these newly formed relationships on "social whim or convention" (Hayes, 2004; Hughes & Barnes-Holmes, 2016). Deriving relations between events in this way allows us to respond to events in ways that are not explained in terms of direct contingencies (Hughes & Barnes-Holmes, 2016). This manner of relating events together, called arbitrarily applicable relational responding (AARR; Hughes & Barnes-Holmes, 2016), can be very useful, allowing us to quickly learn the functions of new events and respond to them based on their association with other known events (Hayes, 2004). A simple example of this can be found in learning a new language. If we are learning French, and come to learn that "pomme" is the word for "apple", then later learn that the Spanish word for "apple" is "manzana", we will likely respond to "pomme" as being the same as "manzana"—a derived relationship that did not require that we directly learn that "pomme" and

"manzana" represent the same object, and without the two words having to have any similarity in their inherent properties (sound, syllables, etc.). Relational frames, to which this theory refers, are specific types of AARR (Hughes & Barnes-Holmes, 2016). They are named frames, a metaphor pulled from the idea of picture frames, referring to the ways in which humans understand and navigate the world by framing—or considering—events relationally (Hughes & Barnes-Holmes, 2016). There are a plethora of ways in which these relations can be derived, some of which are complex, and none of which will be mentioned here because they are beyond the scope of this project (Hughes & Barnes-Holmes, 2016).

It is important to mention, however, that AARR is a type of behaviour that is extremely helpful when it comes to learning. It can allow humans much flexibility when navigating this world—being an underlying principle that explains things such as meaning-making and rule-governed behaviour (Hughes & Barnes-Holmes, 2016). Justly, Törneke and colleagues (2016) put forth how these repertoires of behaviour based on following rules can bring humans to find new flexible ways of behaving, while connecting to motivations such as hope and purpose. This enables people to carry out actions in the here and now based on "unknown and remote future potential consequences", which can have both individual and societal benefit (Törneke et al., 2016).

As beneficial as this may be, this natural way of learning can also become a source of suffering when it alters the functions (e.g., the meaning) of events in ways which can lead us, for example, to associate painful and distressing functions to certain events without these relationships being bound by any inherent or concrete rules (Hayes, 2004). This type of process is called the "transformation of stimulus function", in which the function of an event that was learned is associated with another event without any new direct learning having occurred, leading to a new acquisition, loss, or change of function for this other novel event (Hughes & Barnes-Holmes, 2016). A typical simple

example of this, portrayed by Hayes (2004), is when a child who is playing with a cat for the first time is scratched by that cat, which elicits a typical fear response. This child later comes to experience that same fear response when the child's mother says: "Look, there is a cat in our yard" (transformation of stimulus function in that this spoken sentence activates fear without the child being in the actual presence of a cat, without the child ever having been afraid of those words previously, or without the child ever having learned that these words are fearful). These types of transformations are based on language and cognitive processes that are not explained by typical contingent learning (Hughes & Barnes-Holmes, 2016). It is this same potential brought about from being able to act based on future or unknown contingencies that can also lead to rigidity of behaviour, where rule-following in unskillful ways persists even in the absence of direct or apprehended unpleasant consequences (Törneke et al., 2016). This type of rigidity has been shown to play important roles in several influential processes found in people who experience important distress, notably the processes of experiential avoidance and cognitive fusion (Hayes, 2004).

In experiential avoidance, the natural effort to evade the distress related to certain events (e.g., people or places that are known to cause harm) becomes difficult because transformations of stimulus function allow for other events—such as thoughts, images, emotions—to arbitrarily be related to the initial distressing events, therefore making escape nearly impossible (Hayes, 2004). In the pursued effort to evade the distress, trying to push away these newly associated events can lead the evasion itself to be associated to the distress (another transformation of stimulus function), making the "efforting" painful in and of itself (Hayes, 2004). A cyclical pattern of suffering can thus be manifested here, when there is an effort made in trying to rid oneself of distress—a type of effort common to many. For example, a postsecondary student who notices that their workload is augmenting exponentially may begin to fear that they aren't working enough, that they will not perform well enough, and that they will fail their course. To alleviate this distress, they may turn towards social media, looking to

tune out their worries (initial attempt to avoid distress). Though this may work for a short while, the realization that the work is still piling up and that they have wasted their time may increase the sense of distress (new thoughts and sensations that add to the distress). This worsening worry may then lead them to find other ways to avoid their distress, such as by watching an entire season of a show. They may then develop guilt around these avoidant patterns (the effort to avoid has become the source of more distress), and the cycle continues.

In exploring cognitive fusion, it can be appreciated how the relational networks created through all our relational frames are insidious, far spread, and difficult to change (Hayes, 2004). Because the stimulus functions derived from relational frames usually have more influence than other ways of regulating our behaviours, they can keep people insensitive to their actual experience and any contingencies that may be present in the moment, all the while having this type of influence outside conscious awareness (Hayes, 2004). People can thus remain convinced of the veracity of their thoughts, biases, judgments—which is what characterizes cognitive fusion—and can thus be blind to anything that may contradict these rule-based ways of functioning (Hayes, 2004). For example, a postsecondary student, based on their habitual procrastination, may begin to think that they are not "made" for studies and that others are better equipped than them. These thoughts, based on little coming from outside their internally formed biases, prevent this student from recognizing how many other students suffer from the same type of distress and have difficulty coping. Because they "buy into" their thoughts of being alone in this, they may not recognize that help is available for them, and they may not share their difficulties with others; finding themselves isolated—which may lead to even more distress.

Based on these and other similar observations, RFT suggests that the target of the intervention should not be the problematic event as such (e.g., the distress or the uncomfortable thought), but should be directed towards the relationship formed with

the event, or the "context that supports the event (i.e., the contexts that make it more likely for a thought to become overwhelming)" (Hayes, 2004). In this way, interventions have both a specific scope, while at the same time creating generalizable ways of relating to a variety of difficult events. These two characteristics (specificity and generalizability)—which were key points underlined in the studies of preventative psychological distress interventions referred to above—are fundamental to the underlying model proposed by ACT, the psychological flexibility model.

2.4.3 The Psychological flexibility model explained

Psychological flexibility can be briefly described as the willingness to contact one's thoughts, emotions, and sensations in the present moment and—in consideration of the situational context—incorporate these experiences into choosing behaviours that are in accordance with one's values (adapted from Hayes et al., 2012). This definition shows how the model—true to form for contextual CBT approaches—considers both internal (thoughts, emotions, and sensations) and external (historical and situational context) factors as predecessors of behaviour (McCracken & Morley, 2014). Psychological flexibility, describing a process that lies on a spectrum, allows for insight into the ways in which typical human behaviour can often lead to suffering (e.g., not wanting to contact one's difficult thoughts or unpleasant emotions can make one less sensitive to the situational context and to one's values, thereby limiting liberative choices) (McCracken & Morley, 2014). The model does not only propose processes by which this typical behaviour leads to suffering, but also explains mirror processes that can help to reduce suffering (McCracken & Morley, 2014). Each process is linked to

specific treatment methods, thus helping to create a treatment guide that is intimately related to the underpinnings of the model; each method directly addressing how to improve one's ability to function in the face of suffering (McCracken & Morley, 2014). For these reasons, the model can be applied to the population at large, and not only to those suffering from psychopathology—thus allowing for a much greater scope (McCracken & Morley, 2014).

The psychological flexibility model proposes that an increased development of one's psychological flexibility results in having an approach to life that is more open, centred, and engaged—each of these three postures is considered as components of the model—thus being more meaningful and fulfilling (Hayes et al., 2012). There are six interrelated core processes that make up the psychological flexibility model: acceptance and cognitive defusion—both which make up the open component; flexible present-focused awareness and self-as-context (or self-as-observer)—both which make up the centred component; and values and committed actions—both which make up the engaged component (see Figure 2.1). Each of these processes mirrors a process of psychological rigidity, which is understood as the opposite of psychological flexibility and as accounting for human suffering and the obstruction of functional capacities (Hayes et al., 2012). To grasp the meaning and value of the six core processes of this model, it can be helpful to first understand these six psychological rigidity processes which underlie suffering: experiential avoidance, cognitive fusion, inflexible attention, attachment to the conceptualized self, disruption of values, and inaction or impulsivity (Hayes et al., 2012). It is important emphasize here that, as mentioned above, these processes are considered as typical and can even be functional; they can become problematic when used invariably, without discernment, and automatically (Hayes et al., 2012).

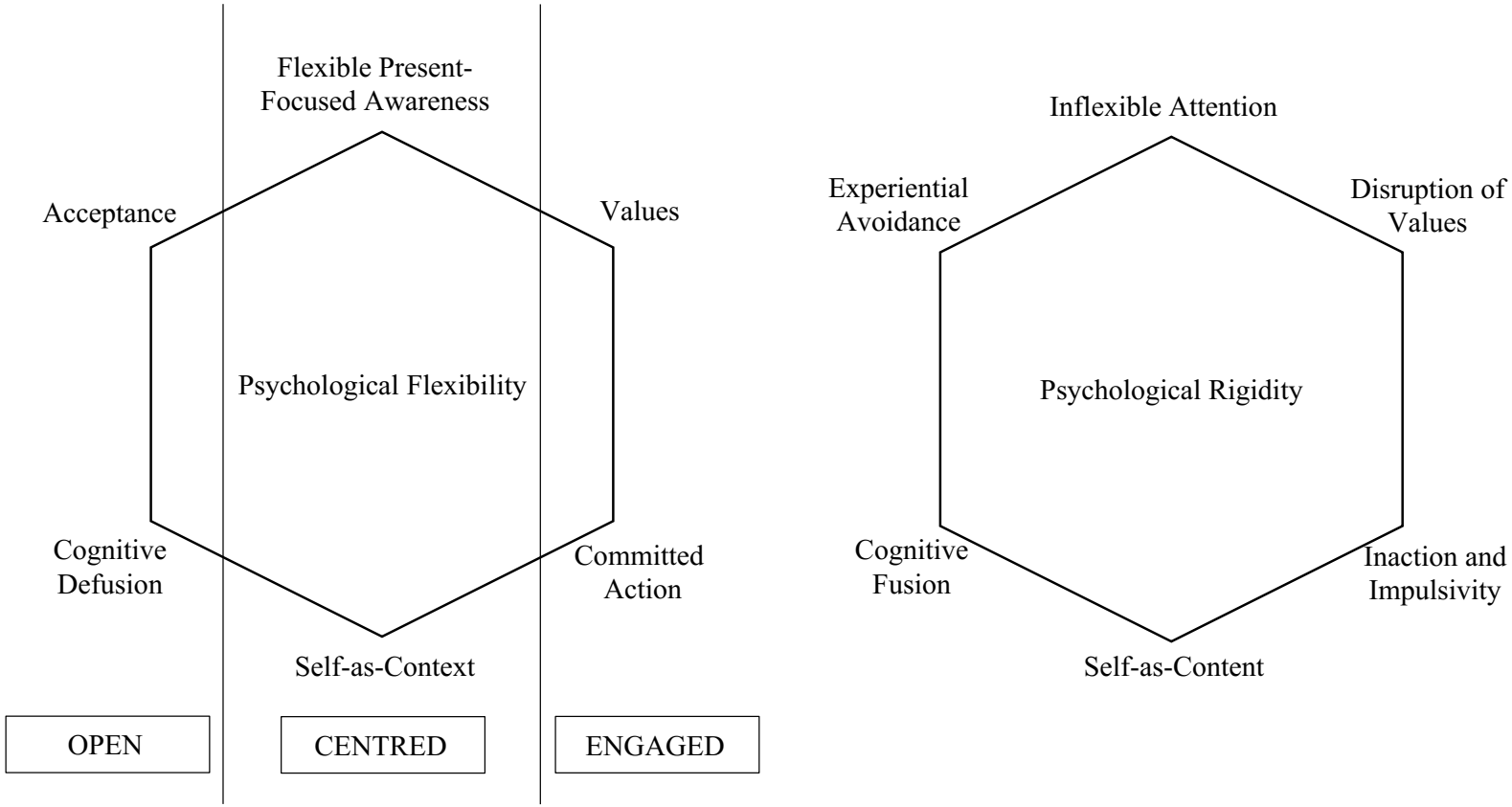


Figure 2.1 Psychological flexibility and rigidity models—including three ACT components and six core processes

Experiential avoidance represents the lack of willingness to be in contact with internal experiences (thoughts, feelings, sensations; Hayes et al., 2012). *Cognitive fusion* is an entanglement of the mind with one's experience, in which the products of the mind (e.g., thoughts) are not recognized as separate from one's experience (Hayes et al., 2012). For example, a person may have an apprehension about the future and not realize that this apprehension is a product of their mind, and so may not actually happen; thus they may take it to be true and behave in ways corroborating this assumption of the veracity of their apprehension. *Inflexible attention* involves a focus that lacks volition and is oriented away from the present moment (Hayes et al., 2012). *Attachment to the conceptualized self* (or self-as-content) represents an inflexible identification with crystallized self-stories (Hayes et al., 2012). A *disruption of values* occurs when meaning and a sense of harmony with what is important are inaccessible, allowing behaviour to be under the control of other influential forces such as social conformity (Hayes et al., 2012). Finally, *inaction and impulsivity* represent a behavioural rigidity that is rooted in an attempt to placate unpleasant internal states (Hayes et al., 2012).

The six core processes of psychological flexibility are meant, in a sense, as an antidote to these processes of psychological rigidity. *Acceptance* involves a willingness to embrace one's thoughts, feelings, and sensations, without attempting to change them in any way (Luoma et al., 2007). *Cognitive defusion* involves creating changes in the function and impact of thoughts without needing to change the content of the thoughts themselves (Luoma et al., 2007). It is a process that creates a distance between oneself and one's thoughts, thus altering this relationship into one that is more flexible (Luoma et al., 2007). *Flexible present-focused awareness—or mindfulness—*is a means of contacting the present moment with more receptivity, and become more responsive as opposed to reactive (Luoma et al., 2007). *The self-as-context* is a self that is known as independent of each particular experience that is lived (Luoma et al., 2007). Being able to contact this self allows one to appreciate one's role as an observer or an experiencer instead of being defined by experiences, thoughts, emotions, sensations, and one's

personal history (Luoma et al., 2007). *Values* are at the centre of this model, as each of the preceding core processes allows one to live a more values-consistent life (also known as valued-living; Luoma et al., 2007). Values are ways of being or doing that allow one to cultivate more meaning in one's life (Luoma et al., 2007). By exploring what values-consistent behaviours have been discarded, and how this may have caused one to lose touch with certain meaningful aspects of life, the degree to which life has been impacted by suffering can be evaluated (McCracken & Morley, 2014). This points to the model's appreciation of the motivational role held by various goals and values (McCracken & Morley, 2014). The model explains how conflicting motives can lead to a loss of valued-living and thus an increase in suffering; and it also explains how values and value-consistent goals can be used to light the path towards healing, allowing for multiple ways in which one can adapt behaviour to reduce suffering (McCracken & Morley, 2014). This points to the final core process, *committed actions*, which are goal-oriented behaviours that are intimately linked with values-consistent living (Luoma et al., 2007). The psychological flexibility model encourages the development of broader patterns of these types of actions; while recognizing the interdependence of all the core processes in improving one's ability to shape their life in ways that are more harmoniously aligned with what has meaning for them (Luoma et al., 2007). An example is a postsecondary student who hopes to align themselves with a value of integrity during their studies. *Acceptance* could allow them to welcome the moments of discomfort when their integrity seems confronted by external demands that are dissonant. *Cognitive defusion* could allow them to notice when their thoughts are trying to convince them that they are already doing all they need to live a life of integrity, and that no further effort is needed. *Mindfulness* could allow them to halt the automatic defence mechanisms that emerge when they feel confronted in their integrity, allowing for more spaciousness and choice regarding how to behave. Contact with the *self-as-context* could allow them to notice that even if there are moments when integrity is not present, it doesn't mean that they are a person without integrity; allowing them to remain motivated in their endeavour. Exploring this *value* could allow them to notice

the suffering present when they are not aligned with integrity, and how there is a sense of fulfillment that can be known when this alignment is there. Finally, in *committing to actions* that concretely reflect living with integrity—such as by engaging in projects that have the main objective of serving the student community—this student can discover beacons allowing them to recognize when life is attuned to integrity.

Thus, it is through a dynamic integration of each of these six core processes that a person can cultivate their psychological flexibility and their well-being. As previously mentioned, the broad scope of this model makes it a plausible candidate for the above-mentioned type of intervention that is required for a distressed postsecondary student population. Several studies have supported this candidacy, some of which will be reviewed in the next chapter.

CHAPTER III

LITERATURE REVIEW

In this chapter, there will be a detailed argument demonstrating the pertinence and importance for this current study to be carried out. The results of studies will be summarized to support the use of ACT-based group intervention programs as a response to the emerging need for postsecondary student psychological services. Furthermore, the inherent problems met in this research will be explained. Finally, the ways in which the intervention program developed by our team and this current study seek to palliate these problems will be explored.

3.1 ACT for postsecondary students—empirical support

As mentioned above, there is growing support for the efficacy of ACT-based interventions in helping postsecondary students to navigate their distress. What follows is a review of the most recent and relevant findings stemming from this field of research. The aim here is to describe intervention-based studies that encourage the use of ACT in fostering the mental health of postsecondary students, demonstrating its effects on

distress-related symptoms. The studies have been organized chronologically and into themes, so to facilitate reading.

3.1.1 Brief ACT intervention studies

The following studies applied ACT in short individual or group interventions. They indicate how even brief ACT interventions can have a significant impact on postsecondary students' levels of distress.

Chase and colleagues (2013) studied the effects of a values-based intervention as compared to a goal-setting intervention in which values were not explored. As such, this study focused very intimately on the role of values while omitting other core ACT processes. In their study, 132 students were randomly assigned to either the values intervention group, a goal-setting group, or a waitlist. Each of the two interventions was done individually and online, and took approximately 45 minutes to complete. What distinguished the values intervention was that it influenced goal-setting by a prior exploration of values, with an accent placed on distinguishing the two components. Though the researchers in this study were more interested in academic performance, what is pertinent to the themes being explored in our study are the findings from an informal follow-up that was made one year after the intervention. At this moment, approximately three times fewer students from the values-based intervention group had dropped out of school as compared to a large pool of non-responders for whom data was anonymously available—a significant difference that was not detected in the goal-setting group (Chase et al., 2013).

In a study by Danitz and Orsillo (2014), 49 first-year postsecondary students were randomly assigned to either a waitlist control group or a 1.5-hour acceptance, mindfulness, and values-based intervention at the beginning of the school semester. This intervention was based in ACT, yet omitted several core processes. At the follow-up three months later, measures of depression were significantly lower for those who received the intervention (Danitz & Orsillo, 2014). In their follow-up study, Danitz and colleagues (2016) sought to replicate and extend the findings of their 2014 study. In this iteration of the acceptance, mindfulness, and values-based workshop, they had 213 first-year undergraduate students who were enrolled in a first-year experience course either partake in their intervention or a control intervention which took the form of a health and wellness module offered by the course instructor. Though there was a control group, participants were not randomized into either group due to administrative purposes. This study found similar results as their pilot study. For students who reported high levels of baseline depression, there were larger and significant decreases in depression after a three-month follow-up in the intervention group as compared to the control group participants (Danitz et al., 2016). This suggests that these types of interventions have more significant effects when offered to students experiencing important levels of distress.

Eustis and colleagues (2017) conducted a study using a similar protocol to that used in the two studies cited above, with the difference being that their focus was aimed towards stress and anxiety symptoms. In this study, 78 college students participated in the 90-minute workshop and completed measures prior to, immediately following, one week following, and four weeks following the group intervention. Results revealed that students levels of anxiety, stress, and social anxiety all improved significantly from pre-intervention to the final follow-up (Eustis et al., 2017).

In a qualitative study by Nelson (2019), 10 students participated in a five-hour ACT-based group intervention consisting of psychoeducation around anxiety and stress from

the ACT perspective, and the learning of skills to assist in adopting this perspective and working with these difficulties in a different way. The thematic analysis of the post-intervention group interview suggests that the intervention allowed students to normalize their difficult experiences (e.g., recognizing their thoughts, emotions, and behaviours as a part of the human condition; recognizing that their symptoms are not "them") and become more accepting and curious of these, bringing more peace in their relationships with themselves (Nelson, 2019). Though only five participants completed the four-week follow-up survey, the results showed that all continued to refer to a tool introduced in the workshop (the ACT Matrix), allowing them to focus on their relationship to their experiences (Nelson, 2019). Also, these participants maintained the perspective changes gained during the intervention and reported that these changes continued to have helpful effects on their lives, such as by allowing uncomfortable symptoms to no longer be seen as enemies (Nelson, 2019).

3.1.2 Self-help (or self-directed) ACT intervention studies

The following studies applied ACT through interventions that students could access on their time while respecting their rhythm. This string of studies—which didn't require the presence of a therapist or counsellor for the major part of the intervention—offer ideas in an effort at making mental health services more accessible.

A randomized waitlist design study by Muto and colleagues (2011) was interested in the population of Japanese international students enrolled in an American postsecondary institution; positing that this population is particularly affected by stress

and underutilizes mental health services due to the stigma concerning them. In this study, 70 students were randomly separated into a waitlist or intervention group. The intervention consisted of reading a Japanese translation of the ACT self-help book entitled *Get Out of Your Mind and Into Your Life* (Hayes & Smith, 2005) over the period of eight weeks. The total time commitment that this represented was between 20 and 28 hours, which included doing the readings and responding to study-related quizzes and questionnaires. At two-month follow-up, significant improvements were found for general mental health and levels of stress in the intervention group as compared to the waitlist, with more important improvements being found in those who were considered to have high levels of distress prior to the intervention (Muto et al., 2011). This study also showed the preventative effect of the intervention in that among those who were initially considered as "nondistressed" in the waitlist group, a third became distressed over the period of the study, while this effect was not found for those in the intervention group (Muto et al., 2011).

In an RCT evaluating a self-help ACT-based online prototype program, a sample of 76 first-year undergraduate postsecondary students were assigned either to a waitlist or to the ACT intervention (Levin et al., 2014). This intervention focused on the values and acceptance processes in the ACT model and consisted of two online sessions containing both multimedia and interactive (e.g., having participants engage actively in exercises) components. Although the findings were not statistically significant by traditional standards (the authors tested for significance at $p < .10$), there were promising differences in that the intervention group showed greater intrinsic motivation and success in aligning with their educational values, and a more significant reduction of anxiety and depression symptoms (Levin et al., 2014).

Although a follow-up study (Levin et al., 2016) failed to replicate the initial findings reported above, a later follow-up RCT evaluated a more complete web-based ACT program and showed more promise. In this study, Levin and colleagues (2017)

assigned 79 predominantly first-year postsecondary students to either a waitlist control or the ACT intervention group. This ACT online intervention now consisted of six sessions completed over the span of four weeks, each session focusing on a specific component of ACT (e.g., defusion, mindfulness). Results showed that outcomes only improved for the ACT intervention group in several mental health areas, including levels of distress, social anxiety, and social well-being (Levin et al., 2017).

Räsänen and colleagues (2016) evaluated a hybrid online and in-person ACT-based program in an RCT with 68 postsecondary students. The program included an in-person meeting with a coach at the beginning and at the tail end of the intervention, and a five-week online personalized course—including five modules based on ACT processes, and weekly tasks, weekly journal entries, personalized feedback from one's coach and other optional modules. Most participants used the online intervention at least one hour per week during the five-week period. Results were measured immediately after the intervention and at 12-month follow-up, and showed more significant increases in well-being, life satisfaction, and self-esteem, as well as more significant decreases in stress, and depressive symptoms for the ACT intervention group as compared to the waitlist control group (Räsänen et al., 2016).

In their pilot study of an online self-directed ACT-based intervention, Viskovich and Pakenham (2018) randomized 130 postsecondary students into one of three similar intervention programs which each had varying degrees of flexibility with regards to how the program could be completed. The purpose of offering these different delivery modes for the intervention was in exploring if attrition and user satisfaction varied across conditions. Each of the three interventions consisted mainly of four online modules to be completed over four weeks, each taking approximately 30 to 40 minutes to complete and focusing on one or two ACT processes. The modules contained various exercises and presentations, including different media types, and there was no face-to-face interaction throughout the intervention. As results and engagement in the program

were similar across the three variants of the intervention, they were analyzed together. Participants were found to have significant improvements after the intervention in the following areas : depression, anxiety, stress, well-being, self-compassion, and life satisfaction (Viskovich & Pakenham, 2018).

A pilot study by Gagnon and colleagues (2019) explored an internet-based ACT intervention directed at decreasing procrastination in postsecondary students. In their study, 36 students were evaluated prior to and after completing the nine-week online intervention which consisted of eight modules covering different ACT processes and procrastination-based information. Included in the intervention were readings, multimedia-based learning and activities, and interactive exercises. The results showed that students' levels of procrastination significantly decreased when measured post-intervention (Gagnon et al., 2019).

Haeger and colleagues (2020) carried out a pilot study to examine the effects of a self-guided ACT-based smartphone application. The sample consisted of 11 college students on a waiting list to receive counselling services at their college. The application prompted students at three random times each day; each time presenting a six-item brief ecological momentary assessment which then directed participants to a brief skill coaching session. These sessions lasted one to five minutes and focused on one of the core ACT processes. Skills were offered for each process except for committed actions and self-as-observer. After each skill coaching session, participants were prompted to reply to another EMA. Students used the application for two weeks, and along with EMAs, pre- and post-intervention measures were also taken. It is important to note that other than the studies carried out by our research team, this is the only other study in this domain that used EMA methodology. Results showed that students levels of depression, anxiety, and stress significantly improved, with seven participants moving from the clinical ranges of depression and anxiety into the non-clinical ranges (Haeger et al., 2020). EMA data showed that there were immediate

significant improvements after skill coaching sessions for these same outcomes, and that these immediate improvements increased as students use of the application increased over time (Haeger et al., 2020).

In a study by Krafft and colleagues (2020), a sample of 102 postsecondary students were randomized into either an ACT-based or a CBT-based self-help book intervention group. Participants in each intervention group were allotted an eight-week period to complete the book, and were suggested a reading schedule. The books consisted of different worksheets and written or practical exercises, with the ACT condition having a focus on each of the six ACT core processes. The average participant completed less than half of the exercises suggested in their assigned book in both conditions. Measures were taken at the mid-treatment mark, immediately after the eight-week period, and at eight-week follow-up. Results showed that in both conditions, participants improved significantly in levels of social anxiety, fear, avoidance, well-being, and social functioning, though the participants in the ACT group showed a greater rate of improvement in well-being as compared to those in the CBT group (Krafft et al., 2020).

Levin, Krafft, and colleagues (2020) sought to compare different versions of an internet-based intervention, with the 181 postsecondary students being randomized into either a complete ACT intervention, an intervention focused solely on the *open* components of ACT, an intervention focused solely on the *engaged* components of ACT, or a waitlist condition. Each of the internet intervention conditions consisted of 12 biweekly short (15-30 minutes) self-guided sessions, which included mainly text-based information and interactive exercises. The intervention conditions also included homework assignments and prompts to remain engaged (either via e-mail or phone call, depending on the condition—see Levin et al. (2021) for findings regarding these specificities). Results indicated that all the intervention conditions significantly improved levels of distress for participants at post-treatment and follow-up (four weeks later) as compared to the waitlist condition (Levin, Krafft, et al., 2020). Well-being was

also shown to improve significantly for participants in the complete ACT intervention and the engaged component ACT intervention at post-treatment and follow-up as compared to the other two conditions (Levin, Krafft, et al., 2020).

In a study exploring the differences in the effects between an intervention using a self-help book grounded in ACT versus one grounded in the mindfulness-based stress reduction program (MBSR), Levin, An, and colleagues (2020) randomized 109 college students into either of the two intervention conditions. Each condition consisted of being assigned an online self-help book, an eight-week proposed reading schedule, and regular e-mail reminders. On average, it was found that participants read more than half of their assigned book during the eight-week period. Results showed that students in both conditions had significant improvements in their levels of psychological distress, positive mental health, and academic functioning, with no significant differences between the two conditions (Levin, An, et al., 2020).

3.1.3 Individual counselling or therapy studies

The following two studies applied ACT in one-to-one intervention programs, which could be considered as a replication of individual therapy programs that are more typically offered through postsecondary institution counselling services.

In one of the earlier studies regarding ACT in the postsecondary student population, Forman and colleagues (2007) compared the outcomes of a group of 57 students who were randomized into either an ACT or a cognitive therapy individual, non-manualized treatment program. Participants of the study completed a mean of approximately 15

sessions, and results suggested that both groups showed clinically significant improvements, with no significant difference being found between the groups in terms of effect on depressive symptoms, anxiety symptoms, level of functioning, and well-being (Forman et al., 2007). The authors concluded that ACT is as effective a treatment to cognitive therapy, which, at the time of writing the article, they considered as the "gold standard" for therapy (Forman et al., 2007).

Hinton and Gaynor (2010) conducted an RCT to study the effects of an ACT intervention that focused on the process of defusion. In this study, 22 undergraduate postsecondary students were randomly placed in either the intervention group or a waitlist control group. The intervention consisted of three weekly one-hour-long individual therapy sessions, guided by a detailed protocol which focused on stepping back from negative thoughts using a particular vocalizing strategy (a defusion-specific intervention). The intervention group was also prescribed take-home assignments regarding this strategy. Results indicated that there were significant improvements in self-esteem, psychological distress, and depression in the intervention group as compared to the waitlist immediately after the intervention, with small to moderate improvements maintained at one-month follow-up (Hinton & Gaynor, 2010). The results were also compared to another group's archival data, having received "supportive therapy" over the same timeline as this study's intervention group, and results suggested a greater improvement in outcomes with the cognitive defusion intervention (Hinton & Gaynor, 2010).

3.1.4 ACT-based multiple session group intervention studies

The following studies applied ACT through a wide array of interventions that spanned multiple sessions, allowing students to receive an in-depth immersion into ACT. Though the effect of the group is not explored directly in these studies, it can be understood that the following interventions, as compared to those cited above, allowed for students to experience the healing effects of being supported by one's peers (Wade et al., 2011), along with the therapeutic effect of the ACT-based intervention.

A pilot study of an ACT-based group for postsecondary students explored the effect of a nine-session intervention (Daltry, 2015). Four participants took part in each intervention session, which lasted 90 minutes and focused on anxiety and stress management through the six ACT processes. The intervention was based on an ACT workbook for anxiety, and though it was structured around the exercises in the book, as the intervention progressed more room was allotted for unstructured sharing. It is unclear how much time elapsed between each session. The results of this study showed that levels of anxiety and distress tolerance significantly improved for all participants (Daltry, 2015).

In a pilot RCT of a group-based ACT intervention, Frögéli and colleagues (2016) looked to study the effects on stress in first-year nursing students. The ACT intervention consisted of six two-hour group sessions that included certain ACT techniques and education around the different core processes, and other related information. Whereas the control group consisted of two three-hour seminars where open exploration regarding personal and professional development was encouraged. A total of 69 students were randomized into the intervention group, and 44 into the control

group. Results showed that the intervention group had significant decreases in perceived stress and burnout as compared to the control group post-intervention, whereas only the differences in perceived stress were maintained at three-month follow-up (Frögéli et al., 2016). However, when considering a sub-group of students who participated in at least three of the six intervention sessions—which was more than the average level of participation—the improvements in both measures were maintained at the follow-up evaluation (Frögéli et al., 2016). A post-intervention focus-group session revealed that students in the intervention group noted improvements in their ability to make effective decisions, to problem solve, and to balance between different life spheres—all which seemed to benefit their academic experience (Frögéli et al., 2016).

A pilot study by Moyer and colleagues (2017) explored the effects of an ACT course for postsecondary graduate students in counselling and psychology. Of the small group of 10 students, most were in their third year of training. The course consisted of didactic teaching of ACT theory, techniques and empirical support, and several experimental exercises and assignments. It required an engagement of 14 weeks, for three hours each week (omitting assignments). Results indicated that the majority of the students (n=8) reduced their level of emotional dysregulation (a concept considered similar to psychological rigidity) when measured four months after the course (Moyer et al., 2017). Also, in qualitative feedback offered by the participants of the study, it was found that the course assisted students in increasing their efforts at being mindful, their ability to notice avoidance, and their ability to practise self-compassion (Moyer et al., 2017).

Exploring the effects of an ACT-based group protocol on interpersonal difficulties and emotion regulation, Norouzi and colleagues (2017) randomized 57 female postsecondary students in an Iranian institution into an intervention group or an inactive control group. The ACT protocol consisted of 10 weekly sessions of a 90-

minute duration, each focusing on different elements such as ACT core processes, schemas, and effective communication. The results of this RCT revealed that the intervention group had significant improvement in interpersonal functioning and emotional regulation post-intervention as compared to the control group (Norouzi et al., 2017).

In a study by Mull and colleagues (2020), levels of distress were measured over the period of two years for 242 postsecondary students who partook in a group intervention called Pathways. Pathways is an ACT-based group intervention including three 50-minute seminars and both a pre- and post-intervention interview. The group seminars were generally completed within a week and a half, and consisted of exercises and education regarding the core ACT processes, with very little emphasis placed on values and committed actions. Results were measured during the post-intervention interview, generally two to three weeks after the pre-intervention interview, and suggested that students' levels of distress significantly decreased from pre-intervention to post-intervention (Mull et al., 2020).

Xu and colleagues (2020) evaluated the effects of an ACT protocol for Chinese international postsecondary students at an American postsecondary institution. In this study, eight participants took part in a small-group intervention, consisting of two separate two-hour sessions, spaced one week apart. The ACT intervention was adapted from an already-existing ACT protocol for work-related stress, and focused mainly on the ACT processes of acceptance, values, and committed actions. The results showed that participants reported significant reductions in levels of stress, anxiety, and depression post-intervention and at one-month follow-up (Xu et al., 2020).

All of these studies, when taken together as a collection of work exploring the utility and efficacy of ACT for postsecondary students, lend support to the pursuit of basing preventative mental health programs in the ACT model. These bolster the findings by

Conley and colleagues (2013) and Martineau and colleagues (2017) who appealed for the use of skills-oriented mindfulness-based preventative programs for this population. It can be appreciated from the work cited above that these programs could take on many forms and focus on all or only some ACT core processes to have significant effects for these students. The program that was developed, evaluated, and disseminated by our research team, called Korsa, distinguishes itself from many of these previous interventions. It was carried out in small groups over the span of five weekly sessions, covered all the six core ACT processes via a manualized protocol, and was offered by workers in the relational field (not by researchers) in the natural settings of postsecondary students. The following section will review the results of the first four studies carried out regarding this program.

3.2 The Korsa intervention—initial phase

Korsa, which is a Swedish word meaning to cross over or to traverse, is an ACT-based intervention intending to helping postsecondary students to traverse their studies with more ease. Korsa was developed in 2012 and offered for the first time in its initial form in 2013. More detail regarding the intervention will be offered later in the methodology section. In the following section, the results of the first four empirical studies carried out with participants of this program will be described, offering support for the use and efficacy of Korsa in postsecondary settings.

The first study carried out regarding Korsa used a quasi-experimental pretest-postest switching-replication design with 90 students who partook in the intervention program

in three postsecondary settings (Grégoire et al., 2016). The manualized program was offered in the different settings by the same facilitators, and consisted of four 2.5 hours weekly group sessions, each covering different core processes of the ACT model. Between sessions, students were encouraged to partake in various ACT-based exercises. Results of this initial study revealed that the participants' levels of well-being significantly increased over the course of the intervention, while their levels of stress, anxiety, and depression significantly decreased (Grégoire et al., 2016). The results also suggested that participants' level of school engagement increased significantly (Grégoire et al., 2016).

The second Korsa study examined the same intervention program, offered by the same facilitators, this time with 144 students across four postsecondary settings (Grégoire et al., 2018). This follow-up study used a more rigorous RCT design and, like the results of the previous study, the participants in the intervention group showed improved psychological well-being, stress levels, anxiety and depression symptoms, and school engagement, as compared to the control group (Grégoire et al., 2018).

A third Korsa study was carried out in parallel to the first two to better understand the experiences of the workshop's participants. At the term of the intervention, along with other questionnaires that participants were invited to respond to, there was also an open-ended question that allowed participants to elaborate on their experience of the program. In this qualitative study, Rondeau and colleagues (2019) did a thematic analysis of the answers that 146 postsecondary students provided to the question: "Was the Korsa workshop beneficial to you? Explain." This study was done, in part, to allow for an appreciation of the complexity of the experiences of participants, and of the benefits that the program may have had for them (Rondeau et al., 2019). The results of this study reflected that the benefits of the program fell within three main themes. Firstly, participants largely sensed that their perceptions had changed with regard to their experiences, characterized by a different understanding of their experiences, and

more consciousness and ease regarding these (Rondeau et al., 2019). Secondly, participants noted changes in attitude with regard to better understanding themselves, and more readily taking a step back from their experiences, and being more welcoming of these (Rondeau et al., 2019). Finally, participants discovered a new state of serenity, presence, and well-being in adopting these attitudes and perceptions (Rondeau et al., 2019).

The fourth study to examine the effects of the Korsa program took a slightly different angle, evaluating the mediation effects of the ACT core processes on mental health outcomes of participants (Morin et al., 2020). In this study, the effect of the same intervention offered by the same facilitators as mentioned above was evaluated, this time with 124 participants across three postsecondary settings. The results of this RCT revealed that levels of anxiety, depression, and stress were influenced indirectly by the intervention through the mediatory effect of acceptance and mindfulness processes (Morin et al., 2020). Contrary to what was hypothesized, valued-living processes did not have a mediatory effect on results (Morin et al., 2020). The authors called for more exploration of the ways in which these processes are measured—something that has influenced this current study.

It is important to note that up until this point, it has been beyond the scope of this literature review to speak of the mechanisms through which ACT interventions bring about their impact. Though evaluating this program is the key interest of this thesis, it can be appreciated that the curiosity regarding the mechanisms underlying these interventions is a part of Korsa's story. This curiosity is an important element that brought about a shift in the way that our studies were being done.

This examination of the mechanisms at work in the program emerged as Korsa was taking on a new shape in which previous results influenced the ways that the intervention was to be delivered and evaluated. Although there was evidence to support

the use of this program, the team was passionate about ensuring that the Korsa intervention brought about the intended impact. Morin and colleagues (2020) along with others (e.g., Ciarrochi et al., 2010; Hofmann & Hayes, 2019) called for more accuracy in evaluating change processes, to be able to better determine the effects of ACT-based programs. This call for change stemmed from the problems that were being noticed in the ways in which processes of change and data had been evaluated regarding the Korsa program and other ACT-based interventions. These issues will be explored next, before coming back to the latest Korsa study which has attempted to address these issues.

3.3 The problems with data collection

Two of the major issues that have been studied regarding typical data collection procedures will be outlined in this section.

3.3.1 Between-person versus within-person designs

A well-known problem with the way in which data is typically collected in psychological research is that it often neglects to capture the dynamic nature of life (Shiffman et al., 2008). Research done using typical data collection methods is often

inclined to take for granted the influence of stable traits in determining behaviour and to neglect the influence of context (Mischel, 2004).

More specifically, a common problem with the way that data is typically collected is that it may not allow for the sensitivity necessary to detect within-person mechanisms of change (Snippe et al., 2015). Because between-person designs—such as RCTs—may poorly capture the heterogeneous nature of individual change processes, they risk diminishing the importance of such differences (Snippe et al., 2015). Up until this point in Korsa's history, and for the majority of ACT research in the postsecondary setting, the research has been done at the between-person level. Hamaker (2012) argues that these typical methods used in large sample research determine what laws apply to the average person, which is not necessarily representative of what is true for "each and every individual in the population". As such, this type of research does not necessarily tell us about general or generalizable laws, as it would claim to do (Hamaker, 2012). Molenaar (2004) argues that to obtain valid results about individual processes such as development and learning—which are domains of great interest to us in these studies—we must carry out analyses at the within-person level. He asserts that for most psychological processes there is no equivalence of variability at the between-person and the within-person levels, and that standard statistical analysis of between-person processes may be blind to important levels of heterogeneity that exist in the population (Molenaar, 2004).

3.3.2 Recall bias

Recall bias is another major problem facing the typical data collection methods that rely mainly on retrospective self-report questionnaires (Shiffman et al., 2008). Shiffman and colleagues (2008) define recall bias as "systematic errors in data values introduced by processes of autobiographical memory". Schwarz (2007) confronts us to the possibility that the typical methods of data collection require participants to offer information about themselves that they cannot give, largely due to the normal mechanisms of autobiographical memory. One such mechanism being its hierarchical organization, in which very specific events are often found at the lowest levels (and thus most difficultly recalled), and this only if they are unusual events (Schwarz, 2007). Shiffman and colleagues (2008) propose that it is not rare for retrospective self-report questionnaires to increase the risk of recall bias by requiring research participants to summarize their experiences and recollect them in atypical laboratory settings or other contexts that can influence their memory.

This is often the case in intervention-based research, such as with the previously mentioned Korsa studies. Typically, participants respond to questionnaires in their group intervention setting, in the presence of the group facilitator or a research team representative, and in the presence of other colleagues also participating in the study. It can easily be recognized that this context is not typical nor representative of a participant's everyday setting. It could even be proposed that these are settings in which—in the case of our studies of Korsa—ideas about well-being, psychological flexibility, and valued-living are primed and thus more accessible. They are perhaps also settings in which there is a pressure to report post-intervention improvements.

There is much scientific support that shows how these oversights in the typical ways of functioning in research can have an important biasing effect on participants' responses to questionnaires. For example, when asking participants to recall several occurrences of a specific type of event, over time these occurrences may become indistinguishable from each other because of their similar nature, thus making it harder to report reliably about them (Bradburn et al., 1987). Similarly, when events are more frequent or the reference period in which participants are asked to recall information is longer, participants rely less on their actual recall of events and more on inferences that will generalize their experiences, once again affecting the reliability of their recall (Bradburn et al., 1987). It is also known that mood has an effect on recall in that, for example, being in a negative mood may make it easier to recall so-called negative events, and thus make it harder to recall differently valenced events (Kihlstrom et al., 1999). This means that when participants are asked to recall mood-related events that happened over a certain period of time, their recall of the frequency of these events may be biased by their current mood, which again calls to question the reliability of this type of recall. Another limitation is highlighted by Ross (1989), who argues that there are two forms of systematic bias involved in recall: one in which differences between past and present are exaggerated, and one in which consistency between past and present is exaggerated. In both cases, people's memories of events are influenced by implicit theories that they have about change and stability (Ross, 1989). These examples show that relying on autobiographical memory for data collection may have several pitfalls.

These arguments about the flaw of retrospective self-report data questionnaires bring into question how well typical methods of data collection "accurately reflect time-specific data" (i.e., data that is intimately related to specific moments in time; Shiffman et al., 2008). In other words, how valid are participants' memories of the dynamic ways in which the processes of interest fluctuate? It would seem that this depends on many factors, such as the duration of the recall interval, the variability of salience, the

frequency of the event, and the uniqueness and importance of the process of interest (Schwarz, 2007; Shiffman et al., 2008). Schwarz (2007) argues that the only reliable way to assess change over time is by measuring events within a much narrower recall time frame and along different points in time; while Shiffman and colleagues (2008) emphasize the need for these measures to occur within one's natural setting.

3.4 Ecological momentary assessment (EMA)—evaluating change over time

EMAs were developed in part as a response to both data collection issues; to help collect data in a way that can be more generalized to the larger population (Hamaker, 2012). The intention of EMAs is to capture data as close as possible to the actual moment of interest, within the natural environment of the research participant—thus maximizing ecological validity, and over a variety of assessment times and situations (Shiffman et al., 2008).

Barlow and Nock (2009) argue for a focus on the "uniqueness of the individual" in psychological science. They assert that approaches such as EMAs can help to identify the sources of variability while better isolating the variables influencing individual change (Barlow & Nock, 2009). An example of the way in which this could be helpful is in EMAs' ability to measure both average and momentary levels of a quality (e.g., psychological flexibility), allowing for a broader view on the ways in which these variables fluctuate and how these differences then impact outcomes (Enkema et al., 2020).

EMAs also seek to improve the accuracy of data collection, in part by exploring the temporal sequencing of events: how events—or processes—change over time, and how these changes are affected by variations in other events that either precede them, follow them, or occur simultaneously (Shiffman et al., 2008). In this way, EMAs allow for the study of "dynamic interactions among processes over time", helping to determine more specifically how and when certain therapeutic levers can be used in clinical interventions (Shiffman et al., 2008). This also makes these methods well suited to investigate transitory and not easily observable facets of one's experience—such as mood (Wenze & Miller, 2010). The goal being to achieve a better understanding of the events that influence these experiences (Aan het Rot et al., 2012).

Of the many forms of EMA (see Shiffman et al., 2008; Stone & Shiffman, 2002), some of these allow for a certain amount of recall to be used in responding to questionnaires, such as end-of-day diaries (EOD). Though requiring even a narrow use of autobiographical memory may induce bias—as mentioned previously regarding the flaws of recalling events—it is considered that recall can be accurate when the events that are being remembered are more salient (i.e., rare, important, and brief; Schwartz & Stone, 2007; Shiffman et al., 2008; Stone & Shiffman, 2002). It has even been shown that for measures of discrete activities, the results are highly correlated when EMA measures are taken multiple times during the day versus only once a day (Shrier et al., 2005). Furthermore, when the events that are of interest only occur briefly and infrequently, Stone and Shiffman (2002) support the skillful use of retrospection. Shiffman and colleagues (2008) consider that this narrow use of recall in EMA studies is an improvement on typical retrospective self-report strategies, as do Aan het Rot and colleagues (2012). It has even been accepted to operationalize "momentary" experiences—the "M" in EMA—as "recent" experiences (Shiffman et al., 2008). These considerations all support the use of a less dense questionnaire intensity—as is the case with EOD—in exploring certain types of changes, such as the ones that our team is interested in (e.g., changes in distress and psychological flexibility).

The type of sensitivity that these collection methods offer is exactly what Hofmann and Hayes (2019) are calling for when urging the clinical field to move toward process-based therapies. Although there is a call for this movement, it has been noted that few researchers have opted for these methods in the ACT community (Vilardaga et al., 2015). The later Korsa research attempted to adopt this novel method of data collection.

3.5 The Korsa intervention program—final phase

Following the previous studies, Korsa underwent a major overhaul. The details of these changes will be described in the methodology section, however, it can be noted that the protocol was adapted, in part, to bring forward experiential learning in a way that integrated the core processes fluidly as opposed to parsing them out as discrete entities. The previous orientation session was also incorporated into the intervention, which allowed for a more gradual integration of the ACT processes, while also allowing participants to obtain a realistic feel for the group. The hope was to allow them to choose in a more informed way whether or not this seemed like an appropriate fit for them. Furthermore, the intervention had left the hands of the original Korsa team, and was now being offered by service providers in postsecondary settings who had followed a four-day intensive training offered by our research team.

These changes in the intervention paralleled changes in the way that data was to be collected and evaluated. The study by Grégoire and colleagues (2020) used EMAs to evaluate the ways in which participants' momentary levels of stress, well-being, and psychological flexibility were affected throughout the Korsa intervention. In this study,

59 students participated in this new version of the Korsa protocol throughout eight postsecondary institutions. The real-time data collection lasted for a five-week period, spanning one week after the final workshop, in which participants were randomly prompted to respond to a brief questionnaire using a smartphone application once per day, for a maximum of five times per week. The results of this study suggested that momentary levels of stress, well-being, and psychological flexibility did not change over time, which was contrary to what was hypothesized (Grégoire et al., 2020). However, when looking at the processes of psychological flexibility, it was also found that fluctuations in momentary levels of openness were significantly positively related to fluctuations in momentary levels of stress and well-being (Grégoire et al., 2020). It was also found that fluctuations in momentary levels of engagement were significantly positively related to fluctuations in momentary levels of well-being, though not to levels of stress (Grégoire et al., 2020). Both positive relationships grew stronger as the intervention progressed (Grégoire et al., 2020). These results shined a light on ways in which the Korsa intervention was working to alleviate the distress of students who partook in the program.

Though these results were a promising step in this new way of collecting and evaluating our data, the team was met with many difficulties that impacted the ability to effectively evaluate the Korsa program. Namely, issues with the EMA prompting schedule made it difficult to collect a significant number of data points per individual; psychological flexibility being complex, it was difficult to measure this construct using the brief questionnaires needed for EMA studies (e.g., valued-living was measured using only one item); and participant attrition was high (Grégoire et al., 2020). A repeat of the study was necessary, with adaptations done to try and correct for these issues met in this first EMA study of the new Korsa protocol.

Meanwhile, members of our research team were doing work in parallel, which was informing the direction of the study of the Korsa intervention. The previous Korsa

study ran into difficulties in measuring psychological flexibility with an EMA design. Grégoire and colleagues (2021) were thus inspired to determine if the important information that was being studied about momentary psychological flexibility could be done in gathering more information about one core process as opposed to only partial information about many of the processes. As mentioned above, values are at the core of this model, as each of the other core processes seeks to allow people to live more values-consistent lives (Luoma et al., 2007). Furthermore, renowned ACT author, Russ Harris (2009) states that valued-living is the one thing that we are hoping to attain through ACT interventions. Additionally, in the context of recent studies using EMA within an ACT framework, it was shown that daily valued-living was positively associated with psychological flexibility (Finkelstein-Fox et al., 2020), that it fluctuated inversely to daily levels of avoidance, and fluctuated positively with daily mindfulness levels (Berghoff et al., 2018). Finally, as was mentioned previously, the study by Grégoire and colleagues (2020) found that engagement was positively correlated with well-being. All this provided support for a shift to focusing solely on values in our Korsa EMA studies.

Hence, Grégoire and colleagues (2021), who were collecting data in the same period as this current study, looked to clarify the associations between daily value-based actions and daily levels of distress and well-being. In this study, 97 postsecondary students were followed using EOD measures for 21 consecutive days. Each of these days, participants were prompted to respond to questionnaires evaluating their momentary levels of distress, well-being, and values-based actions. The results of this study indicated that daily values-based actions were inversely associated with daily levels of psychological distress and positively associated with daily levels of well-being (Grégoire et al., 2021). These authors invited a future direction in which this exploration would be undertaken within the context of an ACT-based intervention, which is where this current study comes into place.

CHAPTER IV

RESEARCH QUESTIONS AND HYPOTHESES

In this chapter, the general and specific research questions and hypotheses of this project will be elucidated. The reader may already appreciate that the current state of evidence regarding ACT-based interventions and the Korsa program has left several questions unanswered. Some of these hope to be clarified through the current study.

4.1 General objective

The general objective of the current study was to explore the between and within-person fluctuation patterns of students' psychological distress and valued-living during the Korsa workshops. A major intention was to carry out this study in a way that palliated for the difficulties met in prior Korsa studies, allowing for a replication that advances the current knowledge of what can help alleviate the distress of this population.

4.2 Specific objectives

4.2.1 Research question 1

This project will explore the changes in the mental health of the participants in the Korsa intervention by evaluating their levels of distress throughout the time period of the intervention. The first question that will be explored is: how do students' daily levels of psychological distress change throughout the course of the intervention? It is hypothesized that daily levels of psychological distress will decrease throughout the intervention (H1). As stated above, there is empirical evidence—even if only considering the previous Korsa research—that this would be the expected result. However, as the latest Korsa study (Grégoire et al., 2020) was unable to clearly reveal this relationship, this question needs to be revisited using EMA methods that address the previous difficulties met with this data collection tool (e.g., prompting schedule issues, low response rate, and high attrition). This question alone is of important clinical value when considering the state of distress of postsecondary students that was described above. Clarification here would provide support to all those who hope to implant the program within their academic settings.

4.2.2 Research question 2

This project will also explore the changes in the mental health of the participants in the Korsa intervention by evaluating the core processes of *values* and *committed action* throughout the period of the intervention. This will be done by evaluating students' ability to engage in valued-living. The second question that will be explored is: how do students' daily levels of valued-living change throughout the course of the intervention? It is hypothesized that daily levels of valued-living will increase throughout the intervention (H2). As stated above, ACT is based on the psychological flexibility model, and one of the main aims of this model is to allow people to live more harmoniously with the qualities, causes, and relationships that they deem important. Since Korsa is an ACT-based intervention, it would then follow that participants who partake in this program will show improvements in their psychological flexibility, namely in their levels of valued-living. The rationale of having a very narrow focus on this core ACT process for EMA studies was elucidated in the study by Grégoire and colleagues (2021) showing the centrality of valued-living. This current study hopes to support and further those results in bringing this question into intervention research. It was also highlighted in the study by Grégoire and colleagues (2020) that EMAs force the use of brief questionnaires. This brings difficulty to the study of such a complex phenomenon as psychological flexibility and its six core processes. Clarification regarding our research question would provide support for all those hoping to implant ACT-based EMA studies to explore this concept, yet who struggle with the limitations of the inherent necessity for using short questionnaires.

4.2.3 Research question 3

Finally, this project will also explore the ways in which levels of psychological distress of the participants in the Korsa intervention relate to their levels of valued-living throughout the span of the intervention. As stated by Schwartz and Stone (2007), EMA studies allow for the evaluation of within-person fluctuations between recently reported variables, such as those of interest in this study. It is hypothesized that daily levels of psychological distress will be inversely proportionate to daily levels of valued-living throughout the intervention (H3). Based on the first two hypotheses, it goes unquestionably that this relationship should be expected in this study. As stated previously, the study by Grégoire and colleagues (2021) supports this prediction. This study hopes to uphold these previous findings within the context of intervention-based research, a need that was called for by the authors. This research question also goes beyond the study of the effectiveness of the Korsa intervention, as it could allow support for ACT-based interventions generally, shining a light on the underlying mechanisms at work in these types of programs. See Table 4.1 for a summary of the study hypotheses.

Table 4.1 Study hypotheses

H1	Daily levels of psychological distress will decrease throughout the intervention.
H2	Daily levels of valued-living will increase throughout the intervention.
H3	Daily levels of psychological distress will be inversely proportionate to daily levels of valued-living throughout the intervention.

CHAPTER V

METHODOLOGY

In this chapter, the reader will be explained in detail the methodology followed during this study, including a description of the participants, the intervention, and both data collection and data analysis procedures.

5.1 Ethical approval

This project was approved by UQÀM's institutional committee for ethics in research done with humans. For the ethics certificate of approval and its subsequent renewals, please see Annex A.

5.2 Participants

5.2.1 Inclusion criteria

The Korsa program was offered primarily as an intervention for students. As such, each participant of the research study engaged in the group intervention alongside other students who were not necessarily research participants. To be considered as a participant for the final sample of this study, students engaged in the Korsa intervention must have first consented to take part in the research project during the first session of the program. They must have then downloaded the application on their smart phones that would allow them to receive the EMA questionnaires. They must also have responded to at least one questionnaire per week during weeks two to five of the five-week intervention. One reason for this inclusion criteria is that the first session is considered an orientation session. Though it is offered as a way for students to make an informed decision about participating in the program, it is considered that the main intervention—such as a focus on ACT-based tools—begins in the second session. A second reason for this inclusion criteria is that with less than one response per week, it became difficult to observe change in the way EMA are meant to assess, and the strength of the methodology was lost. Finally, participants of the program were only included in the study if they attended at least four of the five intervention sessions. The program is not set up as five distinct modules, it resembles more of a fluid building upon, and coming back to, key concepts and themes. Missing several sessions could leave quite a gap in the understanding and integration of these concepts and themes. As the aim of this study is to explore the experience of Korsa participants, it was

deemed necessary to evaluate those who had experienced the majority of the intervention, as opposed to only parts of it. This was decided in the hopes of making it more likely that our data would provide information on the experience of the program as a whole.

5.2.2 Sample description

This study was carried out in two waves, during the fall semester of 2017 and the winter semester of 2018. Participants of this study came from the following 10 postsecondary institutions where Korsa was being offered to its students, though not all institutions participated in both waves of data collection: Bois-de-Boulogne CEGEP (n [number of research participants per institution]=4), Chicoutimi CEGEP (n=5), Rosemont CEGEP (n=1), St-Laurent CEGEP (n=1), Vieux-Montréal CEGEP (n=2), HEC Montréal (n=10), Université Laval (n=5), Université de Montréal (n=5), Université du Québec à Chicoutimi (n=1), and Université du Québec à Trois-Rivières (n=4). In total, thirty-eight (n=38) students were retained for the study sample, considering the above-described inclusion criteria. Of these students, the majority attended all five sessions of the intervention (n=24), while the rest attended four sessions (n=14), with an average of 4.6 sessions attended.

The average age in the sample was 25 years (min: 17; max: 51; SD: 7.22), and consisted of mostly women (n=32) as compared to men (n=6). The participants came from 8 different countries: Belgium (n=1), Canada (n=26), China (n=1), Colombia (n=2), France (n=5), Lebanon (n=1), Morocco (n=1), and Tunisia (n=1). Of these participants,

13 were enrolled in a CEGEP program, 12 in an undergraduate program, and 13 in postgraduate studies (5: master's level or equivalent; 8 doctoral level). The majority of students were attending their studies on a full-time basis (n=35), while a small minority were part-time students (n=3). Several different programs of study were represented within this final sample: 1 student in an arts faculty, 11 in business, 10 in health-related studies, 10 in humanities, and 6 in technology, science, engineering and math-related studies.

5.3 Recruitment

Each institution was responsible for their publicizing the recruitment process. However, it was recommended by the research team that two main methods be prioritized for recruitment; the first being a mass e-mail sent out to students across the different faculties of the institution, and the second being the use of posters to be portrayed in different locations on the campus (see Annex B for proposed poster design). In both media, students were directed to a website (www.korsa.uqam.ca) that provided an overview of the Korsa program and its intentions, while also providing some information about the research project, testimony from "graduates" of the program, and a short promotional video explaining some elements of the intervention (see Annex C for screen shots of the website). On the website was also a section that allowed potential participants to register for their orientation sessions. This registration form sent their contact information to the Korsa coordinator in their institution—the person responsible for coordinating the recruitment process—who would then contact them to confirm the time and date of the first session. It was suggested that this recruitment

phase begin three to four weeks before the beginning of the intervention. As an incentive to respond to the questionnaires, during each wave of data collection participants were entered into a draw to win an iPad mini. They were eligible for this draw if they responded to 75% of the questionnaires.

5.4 Intervention

5.4.1 Development of Korsa 2.1 protocol

The initial version (Korsa 1.0) of the manual was developed in 2012 by Simon Grégoire—director of our research team—along with the assistance of several other professors and healthcare professionals. After having been offered to hundreds of students over two years—and having allowed for several studies—our team began to notice the need for certain adaptations in the protocol. A complete makeover ensued over several months during the summer of 2015. A team of three doctoral students, led by me, took up the task of this transformation, along with the assistance and supervision of Simon Grégoire.

The team was influenced by many things in developing the new protocol, including our experiences in offering the previous Korsa program; our experiences in offering the MBSR program; the trainings we received by several senior ACT and MBSR instructors; and our collective clinical experience that integrated a posture of

welcoming suffering without having to fix it, using an explorational approach. These elements ushered in a wish to make the protocol dynamic, with experiential learning at the forefront; while also encouraging a rhythm that could allow for the cultivation of the stillness, collectedness, and a "being with" that were each so transformative in our own experiences.

As the old Korsa 1.0 protocol was teased apart, there emerged an intention to set the stage for this work that we were inviting students to do. Why would they engage life in the ways that we were suggesting? A context for change seemed necessary to instill the importance of all that would follow. The teachings of creative hopelessness were offered as a starting point by Hayes and colleagues (2012) in their original work on ACT. We decided to honour this as a way to introduce ACT as a skillful means to meet the habitual ways that suffering enters our lives. We also understood that this context for change would be tender, and that it required a powerful way of being with the portrait that creative hopelessness would paint. Mindfulness and acceptance could be understood as the balm offered here; hence the rapid accent placed on opening up to experience in the ways that these concepts invite. Although it was difficult to choose to leave valued-living out of the second session, there was trust that laying this groundwork would allow for participants to later jump with grace into the challenges inherent in committed actions. After that, it made sense to allow this process to be iterative, returning to the initial elements and weaving them back in with what was being noticed during the effort of honouring values. As such, although there was a choice to begin our sessions with "suffering", what followed was a weaving in and out of all the other ACT processes. This strengthened the sense of the tapestry unifying all processes in an interconnected way, as opposed to a straight line passing through points, going in a single direction.

As the Korsa 2.0 protocol took shape, there were several ACT books that were influential in finding inspiration to introduce ACT in an experiential way (see Flaxman

et al., 2013; Harris, 2009; Hayes & Smith, 2005; Kabat-Zinn, 1990; Polk & Schoendorff, 2014; Stoddard & Afari, 2014; Wilson & Dufrene, 2008). Even with these rich references, it seemed that many of the protocols we gleaned were too rigid and too didactic. Some examples of this include that many of the protocols were created as dense scripts. This seemed to suffocate the creativity in the offering of the intervention and bring the focus towards an intellectual as opposed to an embodied delivery of the intervention. In the same sense, many of the protocols introduced ACT processes within conceptual didactic deliveries, sustaining a hierarchical sense that the facilitator "knows" something that the participant does not, but needs to learn from someone else. Furthermore, ACT processes were often introduced as separate entities in individual modules, undermining the idea that all of these represent aspects of psychological flexibility. For these reasons and more, it was difficult to find inspiration for the delivery of an ACT protocol that felt coherent with its dynamic processes and the ways in which we knew it could be alive as an approach in individual psychotherapy. Our intention was to remain close to this in allowing a significant amount of space for things to unfold without too much constraint. In that sense, we assured that there was ample space in the protocol for sharing of experiences. These moments were key for allowing participants to experience the inherent wisdom of the group, while also allowing facilitators to tease together the teachings with the experiences that participants were sharing.

After months of reworking the protocol, in the fall of 2015, Korsa 2.0 was offered as a pilot project to students from UQÀM—the research team's university. This group was offered by me and another doctoral student with whom all the previous Korsa 1.0 groups had been offered. Among the participants were the other doctoral student who had helped develop the protocol, and another member of our research group; both of whom provided important feedback as to the delivery and experience of the protocol. This test run allowed for a readjusting of the protocol before the first training was

offered to all the would-be facilitators who would bring Korsa into their academic institutions.

A second round of readjustments came after the first and second cohorts of facilitators-in-training began to offer their groups. These facilitators provided us with valuable feedback about difficulties they had noticed in the delivery of the program. Some of these modifications were minor, including modifying the script for guided visualizations to enhance clarity, replacing a metaphor with one that was more accessible, and speaking about the group agreements in the first session. Some modifications were more important, including, in the last session, allowing participants to demonstrate their understanding of one of the tools used throughout the protocol, as opposed to the facilitator offering a summary. This reinforced the importance of the wisdom of the group. Also, the time for which participants were invited to practice meditation outside the sessions was reduced, in the hope that this practise could be more accessible. From here, the Korsa 2.1 manual was born and this version has been offered since the fall of 2017, including the groups that were evaluated in this current study.

5.4.2 Korsa facilitators and facilitator training

Following the momentum of the energy instilled in co-creating the new version of the protocol, Simon Grégoire, myself, and the other doctoral student co-facilitator began to build the training program that allowed would-be facilitators to offer Korsa in their academic institutions. To be considered for the training, three prerequisites were

needed: 1) having a university degree in a field related to relational work (e.g., psychology, social work, counselling); 2) currently working in a postsecondary institution; and 3) regularly offering services to assist students (e.g., counselling, psychoeducation).

One intention was clear in building this training: that it had to reflect the nature of Korsa, and that nature had to be experienced with more than just the intellect. We wanted facilitators to learn about Korsa from the inside, and thus decided that the training would require them to be immersed in the protocol as participants. This intention was informed largely by the ACT tenet that we are not very different from the people that we accompany with this approach; and how the nature of the suffering met by our participants is similar to the nature of our own suffering (Hayes et al., 2012). Crafting the training with this intention brought us to build a four-day experience that allowed facilitators to be both "onstage" and "behind the scenes". Being "onstage" was not at all an invitation to act, but actually to drop one's professional role and be "real", while applying all the exercises and practices to one's own life. Being "behind the scenes" allowed for an analysis of the different steps—what core processes informed them, and what was important to know about their delivery. Three of the four training days were framed in this way, while the final day of training was slightly different. In this final day, half of the time was allotted to space for logistical concerns in implanting the program. The other half of the time brought the focus onto the qualities that we deemed important to find in Korsa facilitators. Across all the Korsa trainings that were offered, facilitators-in-training would comment on the way in which we, as trainers, seemed to embody what we were attempting to transmit to them through concepts and theories, and the way that this inspired them. We recognized that modelling what we coined "Korsa qualities" was one of the most important means of transmission in the training; and as such was one of the main vectors through which participants of the program would also integrate ACT concepts (see Rondeau et al., 2019). These qualities were explored and allowed to be brought to the forefront in informal discussion and

through two exercises; one of which allowed facilitators-in-training to test the waters in guiding someone through the Matrix tool (Polk & Schoendorff, 2014).

Once the training was completed, facilitators were interviewed by a member of our research team upon offering their first Korsa group. These interviews allowed facilitators to share any difficulties that had been noticed and to ask questions. Over 150 facilitators have passed through this training process, the last of which was offered in the fall of 2021.

5.4.3 Korsa intervention protocol

Each session of the Korsa program was carried out over 2.5 hours, without a break. It was encouraged that groups be offered by two facilitators simultaneously. No visual aids were used, and participants were seated in a circle of chairs, with facilitators being encouraged not to sit side-by-side, promoting less of a hierarchical arrangement. Any material necessary for exercises was offered to participants by the facilitators.

The Korsa intervention was guided by a manualized protocol, which was offered to all who had completed the obligatory facilitator training described above. This 126-page manual guided facilitators through each section (each exercise or practice) of the protocol, session-by-session, providing several details regarding each section. What was detailed among the manual included the reasoning behind each section; recommendations for carrying out the section, including questions that can be asked or short scripts to inspire the proposed direction of the section; themes that would be important to underline and encouraged to emerge during the section; and reminders,

such as certain traps to avoid in facilitating the section. Though it is beyond the scope of this thesis to provide the same level of detail for the intervention here, a summary will nevertheless follow. Also, in Annex D, are the "facilitator notes" that were provided as a tool to guide facilitators through the sections of each session while they were offering the intervention, to avoid having to refer to the manual. These two to three-paged facilitator notes offered some reminders for each section of the protocol, while providing some key questions, scripts that are found in the manual, and time frames for each section.

In each of the sessions, including the orientation (session 1), once students had been welcomed into the circle of chairs, they were invited to do what we have called a "check-in". These short mindfulness practices were framed as moments in which we could be in transition together, with more awareness. They allowed for students to switch modes, from doing to being, by coming into contact with the body-mind and taking a moment to recognize their intentions for their presence in the session. These check-ins could be guided in various ways, offering some guidance (e.g., the 3-minute breathing space practice, see Annex E) to very little guidance (e.g., simply offering the sound of a bell at the beginning and end of the few minutes of practice). At the end of each session, students were invited to do a "check-out", which was also an occasion to bring awareness to a moment of transition, from the group space back out into the rest of life. Both practices marked the rhythm of the protocol, taking the time while together in the group to cultivate mindfulness.

A brief description of the sessions in the protocol will follow. A table summarizing the main sections of each session and the core ACT processes being emphasized can be found below (see Table 5.1).

Table 5.1 Main sections, exercises, and core processes of Korsa protocol

	Main sections and exercises	Relevant core processes
Session 1	Check-in	Mindfulness
	Korsa's history	Self-as-context
	Stress and its manifestations (dyad work)	Acceptance
	Intervention objectives and logistics	
	Invitations for personal practice and check-out	
	Introduction to Korsa study	
	Main sections and exercises	Relevant core processes
Session 2	Check-in	Mindfulness
	Dyad discussion	Self-as-context
	Introduction to Matrix and creative hopelessness	Acceptance
	Cranberry exercise	Defusion
	Body scan	
	Invitations for personal practice and check-out	
	Main sections and exercises	Relevant core processes
Session 3	Check-in	Mindfulness
	Review of the week's practice	Self-as-context
	The problem with thoughts	Acceptance
	Deconstructing the control agenda	Defusion
	Guided visualization and free writing about values	Values
	Already 80! and discussion on values	Committed action
	Committed action brainstorm	
	Invitations for personal practice and check-out	
	Main sections and exercises	Relevant core processes
Session 4	Check-in	Mindfulness
	Review of the week's practice	Self-as-context
	Pencil exercise / GPS metaphor / Hand exercise	Acceptance

	The “tender” spot	Defusion
	Doing otherwise	Values
	Invitations for personal practice and check-out	Committed action
	Main sections and exercises	Relevant core processes
Session 5	Check-in	Mindfulness
	Review of the week’s practice	Self-as-context
	My Matrix	Acceptance
	Next steps	Defusion
	Closing guided visualization and last sharing	Values
	Check-out	Committed action

Session 1—orientation. The term “orientation” is being used here to help situate the reader, although this can be misleading as it may hint that this was a stand-alone session. It is true that the intentions for this session differed slightly from the following four sessions. It served mainly to welcome participants; to have them experience a sense of what the Korsa program could resemble; to provide to them the intentions of the program and details of its structure; while allowing for time to ask any questions that they may have about the program, and time to speak and contemplate about their intentions and expectations for the program. These intentions are very much in-line with what would be found in a typical orientation. However, it is key to mention here that there was an effort placed in having this orientation session resemble the rest of the sessions as much as possible. In that sense, participants were welcomed into the room, where chairs were placed in the form of a circle and desks were moved to the side or taken out of the room. This physical form was representative of an underlying intention to reflect that all that was necessary was already here, within the circle, and that everyone held a place of equal importance. This was not necessarily transmitted in words by facilitators, though it was encouraged for them to do so. This is one of the

ways in which students could sense that they were being ushered into a way of being that was different from how their usual postsecondary learning would take place. Other ways that the orientation served to usher in these different ways of being is by introducing a meditation practice in the first moments of the session; allowing for sharing in small groups; and offering a metaphor to demonstrate the objectives of the program.

Towards the end of the orientation session, after formally closing the group with a short meditation practice, students were invited to consider partaking in the research project. At this moment, a member of our research team was invited into the room to speak briefly of the ongoing Korsa research and to invite students to participate (see Annex F for the typical script for this section; this script was prepared for facilitators offering Korsa in regions far from Montréal). For those who were interested, a consent form was provided along with a short sociodemographic questionnaire to be filled out (see Annex G for a copy of consent form; see Annex H for a copy of sociodemographic questionnaire). Finally, those who agreed to participate in the research project were provided a brief training for the smartphone application (MetricWire, www.metricwire.com) that would be used to collect data using EMA questionnaires (see Annex I for images showing the appearance of the application). This training was offered in accordance to recommendations from the EMA reporting checklist (see Degroote et al., 2020; Liao et al., 2016; Stone & Shiffman, 2002). It consisted of how to download and set up the application to receive notifications; providing an example of what the questionnaires would look like when participants would be prompted throughout the study, and explaining the prompting schedule to them. Participants were not explained the meaning of the items that would appear in the questionnaire, nor was there a training period with live examples or occasions to try out the MetricWire application; though the research assistant took the time to answer any questions that participants had regarding the application.

Finally, note that four academic institutions that were offering Korsa were located far outside the Montreal area (Chicoutimi CEGEP, Université Laval, Université du Québec à Chicoutimi, and Université du Québec à Trois-Rivières). As such, research assistants did not introduce the study, as our team is in Montreal. In these settings, the group facilitators introduced the project as per the aforementioned script. In preparation, each spoke with a member of the research team before offering their first session to clarify any questions that they had regarding the research elements of the program.

Session 2. The main intentions of the second session were to introduce creative hopelessness and deconstruct the control agenda through the use of the Matrix tool, and to introduce mindfulness practices. Creative hopelessness relates to a state in which one recognizes that most of one's efforts at avoiding experiences have not led to well-being, and in which one must look to new ways to navigate difficulties (Hayes et al., 2012). The control agenda is the default mode that many undertake in which behaviours are motivated by finding ways to control one's experiences, both internal and external (Hayes et al., 2012). It is important to note that here, as with all theoretical ACT concepts integrated into the program, most of the focus was placed on experiential learning, supported by the wisdom of participants' own experiences. There were very little moments of didactic teaching included in the protocol. As such, there was little to no use, or definitions offered, of the theoretical terms used to describe ACT, such as the core processes or the two major concepts explored in this session. As such, both creative hopelessness and the control agenda were only alluded to via the dynamics discovered in the Matrix (see Annex J for a copy of the Matrix as it was presented to participants).

The Matrix is a tool that allows its user to recognize the dynamic interplay occurring between the actions and intentions that take them away from what is important to them, versus the actions and intentions that move them towards what is important and has meaning for them (Polk & Schoendorff, 2014). In this session, participants were rapidly

brought to explore their typical ways of coping with difficulties and some flaws inherent in these methods. This was done both through individual exploration, sharing in dyads and sharing in the larger group. The Matrix was only introduced at the tail end of this exploration, as a map pointing to what had already been discovered in the sharing exercises.

The next part of the session involved placing the accent at the centre of the Matrix, which invites an observation of this dynamic between moving towards and moving away from values. It was proposed to participants that this observation, or awareness, could be developed through mindfulness practices. As a step towards introducing the qualities cultivated in mindfulness practices, participants were guided through the cranberry exercise (a version of the raisin exercise used in the MBSR program, see Kabat-Zinn, 1990). This exercise allowed participants to begin to recognize the discoveries that could emerge when being more aware of what they are doing. This simple practice invited an attention towards the five senses while eating a cranberry slowly and intentionally, and while noting the tendencies of the mind in doing so. From here, participants were guided through a meditation practice called the body scan, in which one's attention is brought to the different parts of the body, passing from feet to head, while noting the sensations that are available to notice in those areas; noting one's relationship to these sensations; and noting once again the tendencies of the mind throughout the practice. Participants were encouraged to practise the body scan throughout the week using an audio-version of a guided meditation (anywhere from 15 to 30 minutes long), and other exercises that encouraged mindfulness to be cultivated.

Session 3. The main intentions of the third session were to pursue a deepening of the creative hopelessness and deconstruction of the control agenda introduced in the previous session; while also introducing participants to the construction of values and committed actions as a way to move towards what is important for them.

After the typical opening of the session, participants were invited to review their week and the integration of the teachings and practices from the prior session while sharing both in small and in large groups. Afterwards, two interactive defusion and acceptance exercises were carried out in the large group to emphasize the traps inherent in struggling against one's difficult experiences and how this struggle tends to keep one moving away from what is important. From here, participants were gently brought to clarify and construct what was important for them in their lives through various exercises done individually, then opening into sharing in small groups and eventually into the large group. After a short didactic teaching section on values and committed actions, hoping to align participants towards ACT-coherent values and goals, participants were ushered into a brainstorm session with their previous small group partners. The intention here was to come up with concrete ways in which they could begin, as of right after the session, putting into place the small steps necessary to move intentionally towards their values. The practice for the week was meant to uphold this momentum regarding valued-living, while also encouraging participants to pursue mindfulness practices.

Session 4. The main intention of the fourth session was to revisit acceptance and defusion as important tools to help face the obstacles that emerged while participants made efforts to integrate more valued-living.

After the check-in and time spent on reviewing the week's practices, participants were then guided through a series of interactive short acceptance and defusion exercises and metaphors, with space around each for discussion in the large group. Afterwards, participants were guided through an adapted version of the Sweet Spot exercise (Wilson & Dufrene, 2008). This guided visualization brought them to connect with a difficult moment, allowing it to emerge through the felt sense available here and now, then to practise making room for those unpleasant sensations and thoughts. Knowing that this exercise could be delicate and difficult, time was spent debriefing in steps, first

in smaller groups then in the large group, while placing an accent on the courage necessary to face one's difficulties in this way. Participants were then invited to integrate these lessons into a small-group brainstorming session in which they explored how they could concretely face the obstacles that have been coming up when moving towards valued-living. The practice for the week encouraged a pursuit of integrating valued-living and mindfulness into their lives.

Session 5. The main intentions of this final session were to bring all the themes together in recognizing the journey that had been taken and the fruits of that journey; while also allowing for a transition filled with moments of awareness, from the program out into the rest of life.

As with the two previous sessions, the session opened with a check-in and reviewing the week's practices. Afterwards, a review of the Matrix was done by first inviting participants to explain the different elements of the tool in their own words to the rest of the group. Next, participants were invited to fill out the Matrix indicating where they find themselves currently with regard to its different sections and the dynamics that it refers to. Participants were then given time to share in small groups and in the large group about what they noticed and have learned in using the Matrix. An exercise entitled "the next steps" was then introduced as a transition; noting that the end of the program was upon us and inviting participants to reflect individually and together about what they would like to cultivate in the future. Participants were then guided through a short closing visualization and offered space to share any comments to the group regarding their journey. As with all other sessions, the closing was marked with a check-out, offering a final moment of shared silence, reinforcing that even here, at the end, this way of being could be pertinent and nurturing.

5.5 Data collection

The following section is organized as per the recommendations on reporting EMA study results outlined in Degroote and colleagues (2020), Liao and colleagues (2016), and Stone and Shiffman (2002).

5.5.1 Sampling

Further rationale for sampling design. The sampling design will be described in detail in the following sub-section. Firstly, it is important to acknowledge some rationale that, along with what has already been mentioned about EMA designs, has helped to shape the decisions regarding how to most skillfully use EMA for this study. Notably, Stone and Shiffman (2002) emphasize that there is no algorithm to be followed when making the multiple decisions that emerge around data collection in this type of study; stating that practical reasons need to be considered among theoretical and statistical ones.

In the case of this current study, we were interested, among other things, in tracking valued-living on a daily basis. This variable could be manifested in many concrete and discrete ways, through actions taken and choices made by participants throughout the study period. Since our participants were learning to integrate valued-living, many for the first time in their lives, we assumed that many actions or choices that were consciously made in line with their values would be salient and memorable. This is true

especially since these were likely to be unique and unusual experiences. Furthermore, participants of the Korsa program were being encouraged to choose and put forward committed actions that were simple, likely bringing them to choose brief actions. Thus, the EOD variant of EMA seemed pertinent for capturing the changes in these types of processes. As was mentioned earlier, the use of a slightly larger recall time frame that is still relatively short is prescribed for salient and unique experiences (Schwartz & Stone, 2007; Shiffman et al., 2008; Stone & Shiffman, 2002).

Finally, what further informed our scheduling decisions was Liao and colleagues' (2016) report that the majority of EMA studies carried out with postsecondary students did not send prompts during daytime school hours. They also report that the EMA studies with the highest levels of prompting also reported the lowest compliance rates, due in part to their intense demand on participants (Liao et al., 2016). Stone and Shiffman (2002) also note that as daily prompts increase, the burden on participants increases as well. All this was considered in attempting to find a balanced density of prompting that would retain enough participants in our study.

Sampling density and schedule. We opted for a time (or interval)-based design, with a random scheduled questionnaire sent out once per day at the end of the day (i.e., end-of-day diaries (EOD)). Prompts were sent between 6 p.m. and 10 p.m. During the first wave of the study in the fall of 2017, EOD were sent daily during the first week of the study; randomly four times per week during weeks two to five; and daily during the week immediately post-intervention, totalling 30 prompts. The more intensive prompting during the first and sixth weeks was done to allow for baseline and post-intervention measures in the hopes of using an ABA design. This design was not maintained due to the nature of the results (e.g., frequency of responses, number of participants). The ABA design was thus dropped for the second wave of data collection.

During the second wave of the study in the winter of 2018, EOD were also sent daily during the first week of the study, then randomly five times per week during weeks two to five, totalling 27 prompts. This change was made to increase the density of prompts and focus on the change occurring during the intervention. Prompts were received both during weekdays and weekends. See Figure 5.1 below for a summarized version of this schedule across both waves of data collection.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
First wave	P1-7	P8-11	P12-15	P16-19	P20-23	P24-30
Second wave	P1-7	P8-12	P13-17	P17-21	P22-27	XX

Note: P = prompt number; XX = no data collection was scheduled

Figure 5.1 Sampling schedule

5.5.2 Response procedures

Description and definition of participant-initiated event entries. Participants were encouraged to answer questionnaires immediately upon receiving the prompt to inform them that a questionnaire was available to answer. If a participant had not responded to the questionnaire after 30 minutes, a reminder was sent to them. If after two hours the questionnaire remained unanswered, it became unavailable. Although this left a significant amount of time to respond, the average latency—the time between the initial prompt and response to the questionnaire—remained under 30 minutes (25 minutes, 20

seconds on average) during the fall wave of data collection. This data is unavailable for the winter wave of data collection.

Description of how nonresponses were handled. Nonresponses to received prompts were not handled as missing data, instead they were not calculated. This was done to preserve the integrity of the data and not use statistical analysis to assume responses to questionnaires that were not provided.

5.5.3 Data acquisition interface

Description of physical characteristics of hardware. Participants of the study used their personal smartphones to download the MetricWire application. The application was available on both Android and iOS systems, which means that there was a large variability in terms of the hardware used in the study, with varying screen dimensions, resolution, and processor speeds.

The MetricWire application was relatively simple, with few colours and images; screenshots of which can be seen in Annex I. Prompts would be notified on the smartphone through a banner which, when tapped, would bring participants directly to the questionnaire's first question. The icon of the application would also show a badge to indicate that a questionnaire is available, and the notification would also appear in the notification centre of the smartphone.

Description of mode of item presentation. The eight-item questionnaire was brief, taking approximately one minute to complete. The eight items of the questionnaire

always appeared in the same order. Reminders were short, stating that a questionnaire was available.

Measures. To capture an accurate glimpse of the variables of interest (psychological distress and valued-living), a compilation of items from different questionnaires was required. Because of their brevity, EMA questionnaires must rely on information from very few items. This requires choosing and adapting items from within longer retrospective questionaires. There could be questions about the impact on the validity and reliability of EMA questionnaires that are built in this way. However, what has been suggested is that because of their nature, as described previously, these brief EMA measures can actually be more sensitive, especially when measuring specific events and trying to understand what influences them in a more immediate way (Shiffman et al., 2008). As such, the potential risks seem outweighed by the potential benefits. This being said, when compiling these questionnaire items, it remains notable—as mentioned by Bolger and Laurenceau (2013)—that there is little guidance available to structure measurements in EMA.

To measure *psychological distress*, items were used from the French versions of the *General Anxiety Disorders Questionnaire-2* (GAD-2; Kroenke et al., 2007; Micoulaud-Franchi et al., 2016; Plummer et al., 2016), the *Patient Health Questionnaire-2* (PHQ-2; Carballeira et al., 2007; Löwe et al., 2005), and from the *Psychological Stress Measure* (PSM-9; Lemyre & Lalande-Markon, 2009). Using items from these three scales allowed for the evaluation of the different facets of psychological distress mentioned earlier. The GAD-2 is a brief screening tool for anxiety-related disorders that has demonstrated comparable sensitivity and specificity in detecting these disorders when compared to its original seven-item scale (Plummer et al., 2016). Both items of this measure were used for our questionnaire. They were slightly adapted to represent a daily evaluation as opposed to an evaluation over the course of the last two weeks (*today, how often have you been bothered by the following*

problems: feeling nervous, anxious, or on edge; not being able to stop or control worrying). The PHQ-2 is a brief screening tool for depressive-related disorders that has also demonstrated comparable sensitivity and specificity in detecting these disorder when compared to longer screening tools (Löwe et al., 2005). Both items of this measure were used for our questionnaire. They were slightly adapted to represent a daily evaluation as opposed to an evaluation over the course of the last two weeks (*today, how often have you been bothered by any of the following problems: little interest or pleasure in doing things; feeling down, depressed, or hopeless*). The PSM-9—which is a measure of the state of stress that is experienced by individuals—has shown adequate validity and reliability in its full form (Lemyre & Lalande-Markon, 2009). One item from this scale—chosen for its face validity—was used for our questionnaire. Its form was slightly adapted to maintain coherence with how the previous two scales' questions were formulated (*today, how often have you been bothered by the following problems: feeling stressed*). For all five of these questions, during the first wave of the study, the responses were measured using a likert-type scale from 0 (*not at all*) to 3 (*almost all day*). This was adapted for the second wave of the study because of the likelihood for this type of frequency scale to underestimate the variance of the experience being measured (Schwarz, 2007). Instead, items were measured using a scale from 0 (*not at all*) to 100 (*almost all day*). The data from the two waves were combined by converting the first wave's scores to a percent of maximum possible score (POMP; Cohen et al., 1999). The POMP is a linear transformation of a score, not affecting the reliability, validity, internal consistency, or adequacy of a scale (Cohen et al., 1999). Furthermore, when using this transformation, there is no impact on the statistic test results, including statistical power (Cohen et al., 1999). Finally, these transformations are shown to be helpful in demonstrating the relationship between variables that are measured using differing scoring schemes (Cohen et al., 1999)

To measure *valued-living*, three items—chosen for their face validity—were used from the Engaged Living Scale (Trompetter et al., 2013), which measured the *engaged* posture of the psychological flexibility model as previously described. This scale separates the engaged posture into the subcategories of valued living (the clarity of one's values and how one acts in accordance to them) and life fulfillment (the sense of fulfillment that emerges when acting in accordance with one's values; Trompetter et al., 2013). In its entirety, the scale has demonstrated appropriate validity and reliability (Trompetter et al., 2013). The three items that were used were slightly adapted to represent a daily evaluation as opposed to a general evaluation (valued living: *Today, I made choices based on my values, even if it was stressful; Today, I believe that how I behaved fits in with my personal wants and desires;* life fulfillment: *Today, I made time for the things that I consider important*). During the first wave of the study, the responses were measured using a likert-type scale from 1 (*completely disagree*) to 5 (*completely agree*). This was adapted for the second wave of the study—as with the psychological distress items—and instead items were measured using a scale from 0 (*completely disagree*) to 100 (*completely agree*). At the time that this study was being carried out, a validated French version of this questionnaire was not available. See Grégoire and colleagues (2021) for details on this measure's translation to French for use in this study.

Following recommendations by Song and colleagues (2013), composite scores were created of these questions to reflect the two variables of interest. See results section for more information.

5.6 Data analysis

5.6.1 Multilevel modelling rational

To analyze the EMA data, we chose to use multilevel modelling analyses. According to Schwartz & Stone (2007), EMA data are not suited for typical repeated measures analysis of variance, and there are seven main reasons for this. First, the data are typically not uniformly spaced in time—seeing as how questionnaire prompts may be sent out randomly. Second, predictor variables exist both at the person-level (e.g., average level of psychological distress) and at the moment-level (e.g., today's level of psychological distress). Third, there may be missing data—which typically comes in the form of missed or incomplete prompts. Fourth, data takes on a complex nested structure, where separately identifiable responses are actually part of a larger data organization (e.g., the individual responses related to one variable that are collected over time for one person and uniquely provide momentary information, are also, when taken together, representative one individual's overall experience). Fifth, there are a very large number of observations collected per person, and the number of observations per person will typically vary. Sixth, data may be unbalanced, meaning that factors measured at the person-level may be nonindependent to factors measured at the moment-level. Finally, data are usually serially autocorrelated, in that measures taken closer together resemble each other more than measures taken further apart. All of these characteristics make this data particularly suitable for multilevel model analyses (Schwartz & Stone, 2007), which has become the most popular way of analyzing these types of data (Walls et al., 2006). Hamaker (2012) argues that these methods of

analyses allow for the exploration of "quantitative differences between individuals" while pointing towards what variables may actually predict these differences.

Multilevel modelling equations help to determine the individual influence of moment-level predictors and person-level predictors on the pattern of fluctuation in outcome variables (Bolger & Laurenceau, 2013; Schwartz & Stone, 2007). By incorporating both of these levels into the analyses, the relationship between them can be investigated, as opposed to analyzing each level's contribution separately (Bolger & Laurenceau, 2013). This is important because it is believed that the effect on the outcome variable of any moment-level predictor is dependent on the effects of the person-level predictors (i.e., stable factors; Schwartz & Stone, 2007). Knowing the extent to which this is true can assist in determining where and when change can be influenced via an intervention (Schwartz & Stone, 2007). Furthermore, for a given outcome variable, the between-person variance—the variance in all participants' mean levels of that variable—and the within-person variance—the variance in each participant's own level of that variable—can be analyzed using these models (Schwartz & Stone, 2007). The ratio of between-person variance to the total variance—which is the sum of both of these types of variance—reflects the extent to which participants' levels of a variable modulate together (Schwartz & Stone, 2007). The higher this value, the more likelihood that there is something that is being influenced by the intervention being tested (Schwartz & Stone, 2007), which is obviously of interest to this study.

Finally, random effects (between-subject differences) can also be analyzed with multilevel modelling. This allows for a better appreciation of how variables modulate across participants due to elements that were not controlled for (Bolger & Laurenceau, 2013). This can also assist in determining the influence of a specific intervention.

5.6.2 Participant compliance

As a measure of clarity and to determine the validity of the results of EMA studies, Stone and Shiffman (2002) recommend reporting the following aspects of participant compliance: the sampling plan and response rates. As for the sampling plan, an attrition flow chart describing the periods at which participants left the study can be found in Figure 5.2. In this study, 93 people downloaded the MetricWire application, representing the initial sample. It should be noted that 6 participants of the 93 were excluded from the study due to technical difficulties involving a delay in sending out the questionnaires. Of the initial sample, 38 fit the inclusion criteria—having participated in at least 80 percent of the intervention and having at least one completed questionnaire per week between weeks 2 and 5. The final sample retained thus represents 40.9 % of the initial sample population.

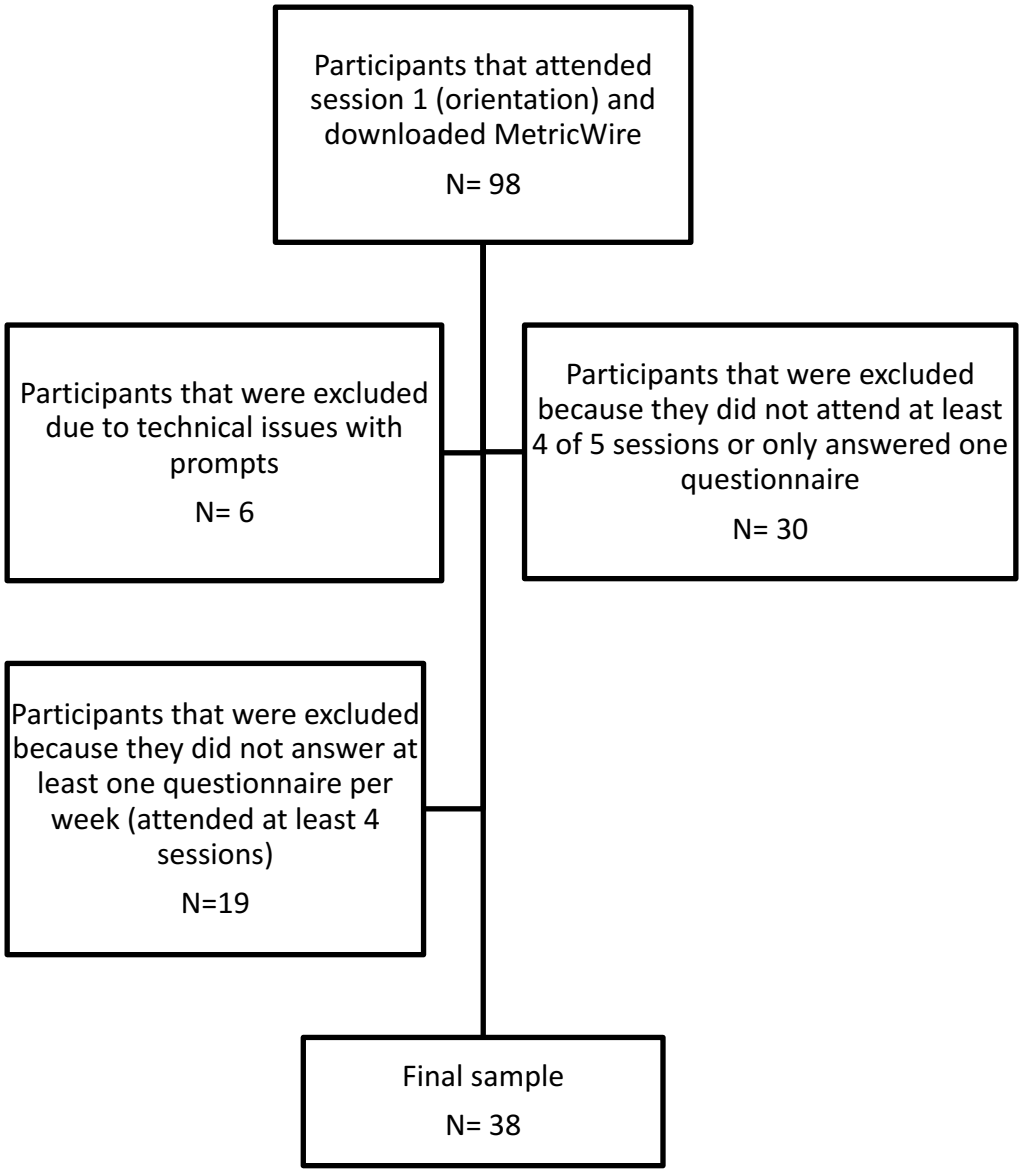


Figure 5.2 Attrition flow chart

In terms of response rates, as is typical with EMA studies (Stone & Shiffman, 2002), several questionnaires were left completely unanswered throughout the study. As is suggested by Stone and Shiffman (2002), these omissions were considered as missed

prompts. For the final sample, an average of 23 prompts was received by the participants (min: 16, max: 27). Of these prompts, the average number of questionnaires that were answered was 16 (min: 8, max: 21), representing a 69% response rate, which can be considered relatively high (Liao et al., 2016). For a detailed description of how the responses to prompts fluctuated across the entire data collection period for those included in the final sample, see table in Annex K. As can be seen in the table, there was no specific moment across both waves of data collection when responses dropped off. Note that some participants only downloaded the MetricWire application late during the first week of the study or after the first week, limiting the number of prompts that they received.

CHAPTER VI

RESULTS

In this chapter, the results from the statistical analyses of the collected dataset will be presented. The format in which the results are presented in this section is based on the recommendations for reporting results of intensive longitudinal studies as described in Bolger and Laurenceau (2013). Information reported in this section is also based on the recommendations for reporting EMA research as described by Liao and colleagues (2016).

6.1 Data analysis

All general analyses were carried out with R (R Core Team, 2018), while multilevel analyses were done using the lme4 package (Bates et al., 2015).

Statistical assumptions of linearity and homoscedasticity were verified by visually examining graphic representations of the residuals.

6.2 Descriptive statistics

As described above in the methodology section, to carry out our analyses, two composite scores were created. The composite score entitled *psychological distress* was calculated using the average across the scores for anxiety, depression, and stress, as measured respectively by the items from the GAD-2, PHQ-2, and PSM-9. The composite score entitled valued-living was calculated using the average across the scores for valued-living (two separate items) and life fulfillment, as measured by the ELS. In measuring the correlations and confidence intervals across items within each composite score, the values were acceptable as per Clark and Watson's (1995) recommendations for creating composite scores.

The final dataset used for this analysis consisted of 38 participants being followed over five weeks, for a total of 607 observations. Upon visual inspection of the individual scatter plots (see Annex L for entire set of scatterplots), it would seem that the within-person change over time of psychological distress and valued-living was approximately linear. No values were considered as outliers, and as such they were all used in the analyses of the results. In terms of missing data, there were eight participants who omitted data in an average of 4.8 questionnaires (minimum number of questionnaires with missing data in this subset: 1, max: 13). All incomplete questionnaires combined, these eight participants omitted an average of 7 items (min: 1, max: 19). In these cases, statistical analyses were carried out by omitting the individual unanswered items. More precisely, the values of the variables of interest (psychological distress or valued-living) related to these individual missing items were calculated using the average of the other related items for which participants had given responses, as opposed to replacing omitted values with a specific calculated value.

The descriptive statistics and the zero-order correlation for the variables of interest are shown in Table 6.1. The nature of the zero-order correlation found here was as expected, with increases in valued-living being correlated with decreases in psychological distress.

Table 6.1 Zero-order correlations among study variables

Variables	1	2
1. Valued-living	63.2 (24.7)	
2. Psychological distress	-0.36*	35.5 (21.6)

Note. Values in diagonal are means, with standard deviations in parentheses. *p<.001

6.3 Sociodemographic variables

During data collection, sociodemographic variables were collected, as mentioned in the methodology section. These variables were included in the analyses to find the model that best fit the data, allowing for the most precision in the prediction of outcome variables. For both psychological distress and valued-living, including the sociodemographic variables in the model provided a worse fit for the data. Consequently, these variables were removed from the final models that are discussed here. It can therefore be assumed that their effect on the outcome variables was null.

6.4 Differences in average levels of reported daily psychological distress and valued-living

To pursue the investigation of the individual differences in the outcome variables of interest, it is important to know, firstly, if the average reported level of these variables changes across participants (Schwartz & Stone, 2007). For each variable, this can be determined by calculating the intraclass correlation (ICC), which is a ratio of between-person variance to total variance (Schwartz & Stone, 2007). In our dataset, for psychological distress the ICC is 0.29, and for valued-living the ICC is 0.43. In both cases, these values show that there is a considerable amount of between-person variance across participants, and thus the pursuit of a statistical analysis using multilevel modelling is warranted.

6.5 H1 and H3: Multilevel model of change in psychological distress

The data were first analyzed using a multilevel model of change in psychological distress as a function of valued-living. It was hypothesized (H1) that psychological distress would decrease over the course of the intervention, and (H3) that this decrease would be inversely proportional to an increase in valued-living. The results are presented in Table 6.2 and in Figures 6.1 and 6.2. Table 6.2 has two types of parameter estimates. The first type are fixed effects and represent the results for the average person in the study. These fixed effects are represented visually by the thickened black

line in Figure 6.1. The second type of parameter estimates in Table 6.2 are the random effects. These effects represent different kinds of variability in the data. The upper level of these estimates relates to the between-person variance, meaning the difference in a participant's mean level of psychological distress as compared to the group average. These upper-level random effects are represented visually by the variability in the individual regression lines in Figure 6.1. The lower level of these estimates relates to the within-person variance, or the variance within each individual participant's mean level of psychological distress (i.e., how daily values differ from their predicted value). These lower-level random effects are visually represented by Figure 6.2 in which we see the raw data and fitted lines for five different participants, for which details will be provided later in the section.

It is in the thickened black line of Figure 6.1 that reflects the main findings in terms of the change in psychological distress. It can be seen from this figure that the average participant shows a slight decrease in psychological distress over the course of the intervention. Table 6.2 describes the statistical significance of the variables that had an influence on this change.

Table 6.2 Parameter estimates for multilevel model of psychological distress as a function of time, and valued-living

Fixed effects (intercept, slopes)	Estimate (SE)	*t*(df)	*p*	*CI* 95 Lower	*CI* 95 Upper
Intercept	36.63 (2.36)	15.50 (39.9)	<.001	32.00	41.39
Time	-0.10 (0.11)	-1.00 (38.3)	.33	-0.33	0.11
Values between	-0.36 (0.11)	-3.30 (35.6)	.002	-0.58	-0.13
Values within	-0.36 (0.05)	-7.00 (30.3)	<.001	-0.46	-0.26
Random effects ([co-]variances)	Estimate (SE)	*p*	SD	*CI* 95 Lower	*CI* 95 Upper
Level 2 (between-person)					
Intercept	159.77 (2.08)	--	12.64	77.44	282.24
Time	0.28 (0.10)	--	0.53	0.10	0.52
Values within	0.04 (0.05)	--	0.19	0	0.08
Level 1 (within-person)					
Residual	244.61 (0.46)	--	15.64	200.22	273.90
Autocorrelation	0.11	.01	--	0.03	0.19

Note. SE=standard error; df=degrees of freedom; CI=confidence interval.

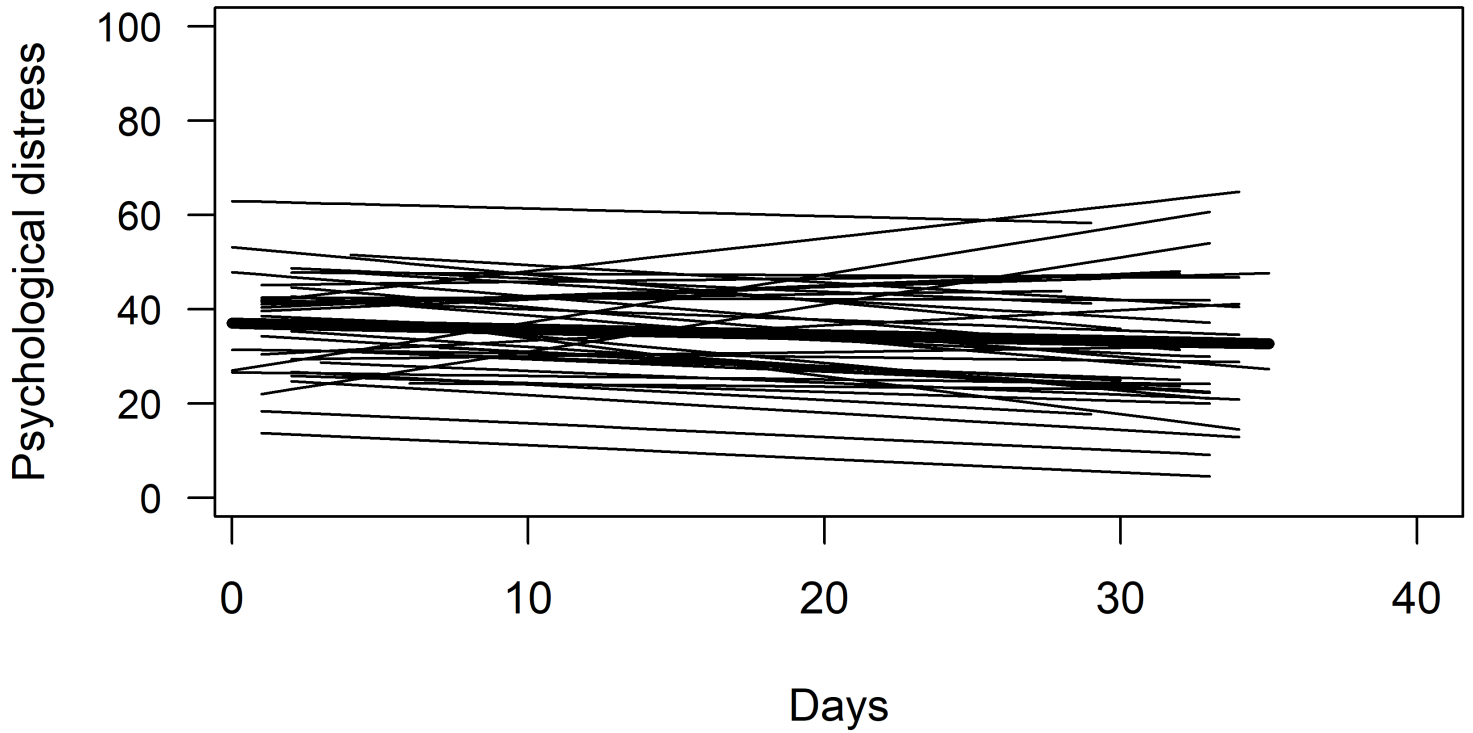


Figure 6.1 Spaghetti plot of average (thick) and subject specific (thin) time courses for participants' psychological distress

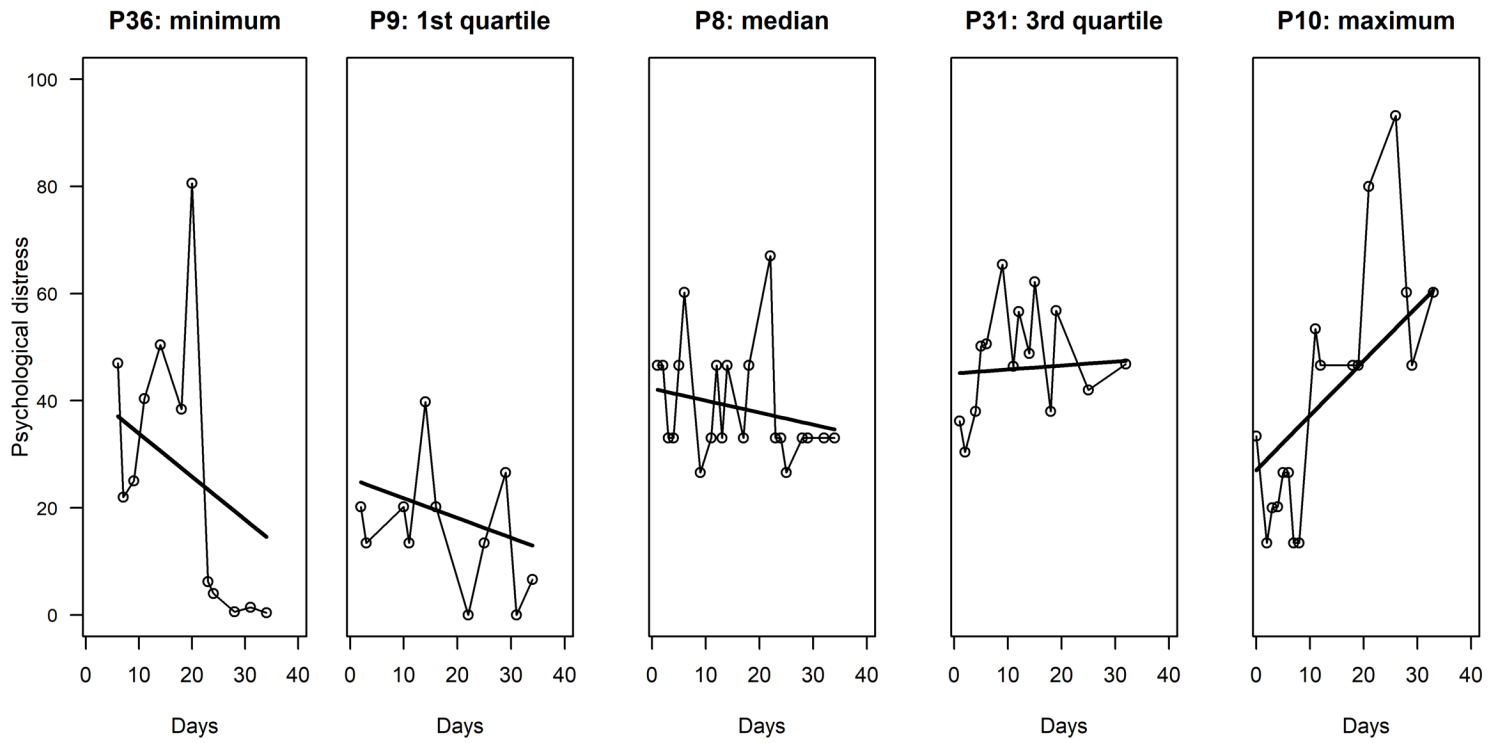


Figure 6.2 Raw and fitted time course for participants at the lowest, highest, and lower, middle, and upper quartile values of regression line slopes for psychological distress

The model parameter estimates in Table 6.2 can be interpreted as such: (1) the intercept is the mean value of psychological distress when valued-living is held at its mean value, (2) time is the change in psychological distress over the period of the intervention, (3) values between is the change in psychological distress in relation to a person's average (person-level) change in valued-living, and (4) values within is the change in psychological distress in relation to a person's daily (daily-level) change in valued-living (i.e., the deviation from one's own mean at a specific moment).

Looking at the impact of valued-living, Table 6.2 shows that, as hypothesized (H3), psychological distress decreases in relation to both average ($t(35.6) = -3.3$, $p = .002$, $CI_{95} = -0.58, -0.13$) and daily ($t(30.3) = -7.0$, $p < .001$, $CI_{95} = -0.46, -0.26$) increases in valued-living.

When it comes to time as a predictor variable, Table 6.2 shows that, as expected (H1), psychological distress decreases over the time of the intervention. However, the effect of time (-0.1) had a non-statistically significant *p*-value of 0.33 and its confidence interval ranged from -0.33 to 0.11. Therefore even if it seems that psychological distress decreased as a function of time, the uncertainty in the estimate reflects that the true change as a function of time may likely be zero; and therefore it cannot be claimed that this is an important effect.

One of the reasons for this level of uncertainty is the impact of the between-person random effects. This variability, again, is represented visually by the different regression lines around the thick dark line in Figure 6.1. Each line indicating the different model-based estimates for individual participants. When looking at the values of the random effects, Table 6.2 shows that the variances for both intercept, change over time, and within-person valued-living changes are all quite large relative to their standard errors, which represents a significant amount of between-person heterogeneity (Bolger & Laurenceau, 2013). This heterogeneity is well represented by the differences

in individual intercepts. These differences are made evident when looking at the values in Table 6.2, in which the standard deviation of the intercept variance indicates that 95 percent of the population varies between +/- 25.28 units of the average intercept for their group. This pattern can be appreciated in Figure 6.1.

Another important reason for uncertainty in some estimates of the model is that the lower-level random effects, or the residuals, are also significant. These results are reported in Table 6.2, whereas Figure 6.2 shows examples of fitted values and the residuals for five different participants from our sample. The graphs of these participants were chosen to represent the different slope magnitudes of the regression lines in the sample, corresponding to the lowest and highest valued slopes, and the slopes representing the lower quartile, middle quartile (or median), and upper quartile values. From this graphic, an important amount of variability in psychological distress can be seen from week to week although a linear pattern of change can be approximated.

Finally, also found in Table 6.2 is the test for autocorrelation, for which the value is minimal and does not impact the quality of the model-data fit.

6.6 H2 and H3: Multilevel model of change in valued-living

The data were also analyzed using a multilevel model of change in valued-living as a function of psychological distress. It was hypothesized that valued-living would increase over the course of the intervention (H2), and that this increase would be inversely proportional to a decrease in psychological distress, as was shown in the preceding section (H3). The results are presented in Table 6.3 and in Figures 6.3 and

6.5. As with the previous table, the fixed effects of Table 6.3 are represented visually by the thickened black line in Figure 6.3, and the upper-level random effects—the difference in a participant's mean level of valued-living as compared to the group average—are represented visually by the variability in the individual regression lines in Figure 6.3. The lower level of the random effects—the variance within each individual participant's mean level of valued-living—is visually represented by Figure 6.4. which displays examples of fitted values and the residuals for five different participants from the sample, chosen in the same manner as in the psychological distress model.

It is in the thickened black line of Figure 6.3 that allows for an appreciation of the main findings in terms of the change in valued-living. It can be seen from this figure that the average participant shows a slight increase in valued-living over the course of the intervention. Table 6.3 displays the statistical significance of the variables that had an influence on this change.

Table 6.3 Parameter Estimates for Multilevel Model of Valued-living as a Function of Psychological Distress

Fixed effects (intercept, slopes)	Estimate (SE)	*t*(df)	*p*	*CI* 95 Lower	*CI* 95 Upper
Intercept	62.65 (2.40)	26.00 (35.8)	<.001	57.60	67.20
Distress within	-0.38 (0.04)	-9.30 (568)	<.001	-0.46	-0.30
Distress between	-0.65 (0.19)	-3.30 (35.7)	.002	-1.00	-0.30
Random effects ([co-]variances)	Estimate (SE)	*p*	SD	*CI* 95 Lower	*CI* 95 Upper
Level 2 (between-person)					
Intercept	198.81 (1.65)	--	14.10	79.21	302.76
Level 1 (within-person)					
Residual	305.90 (0.46)	--	17.49	265.69	338.56
Autocorrelation	0.00	0.99	--	-0.08	0.08

Note. SE=standard error; df=degrees of freedom; CI=confidence interval.

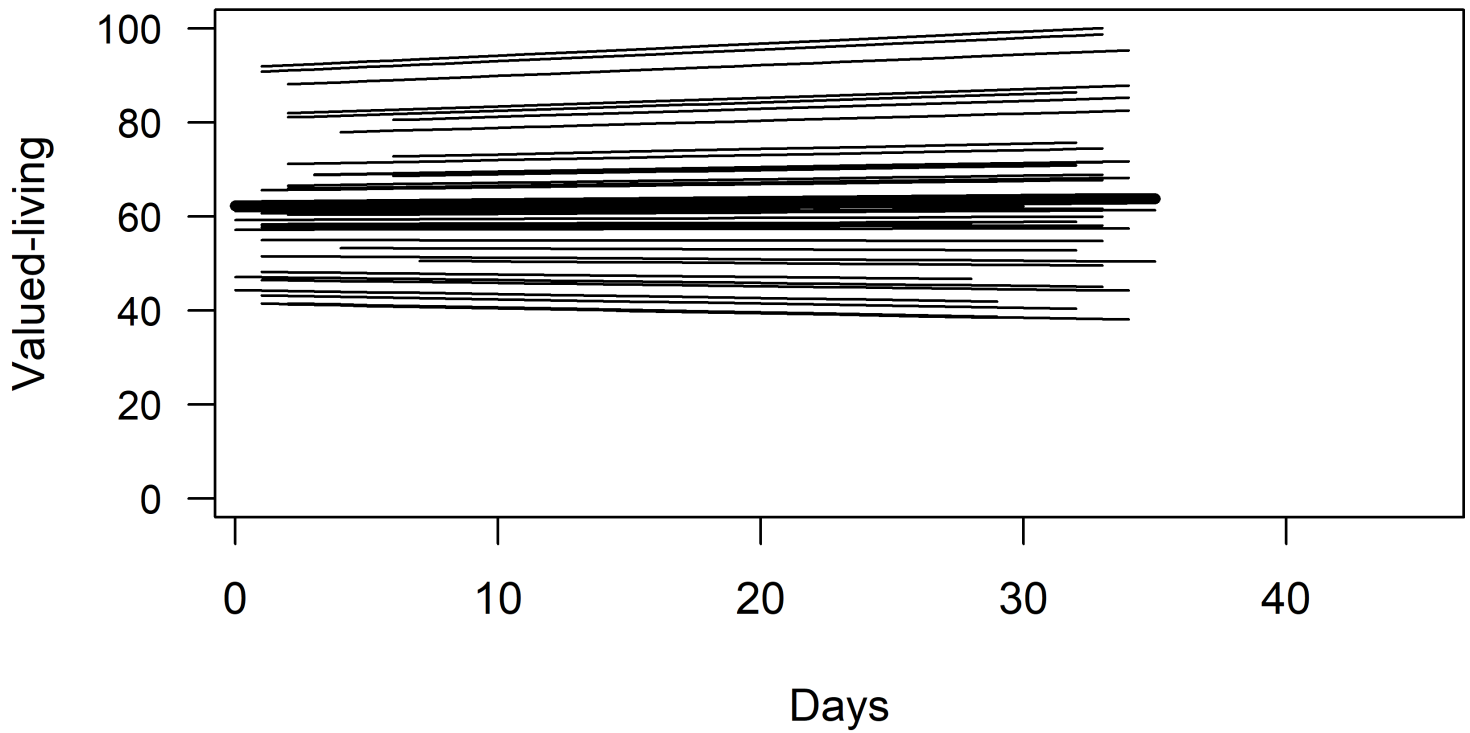


Figure 6.3 Spaghetti plot of average (thick) and subject specific (thin) time courses for participants' valued-living

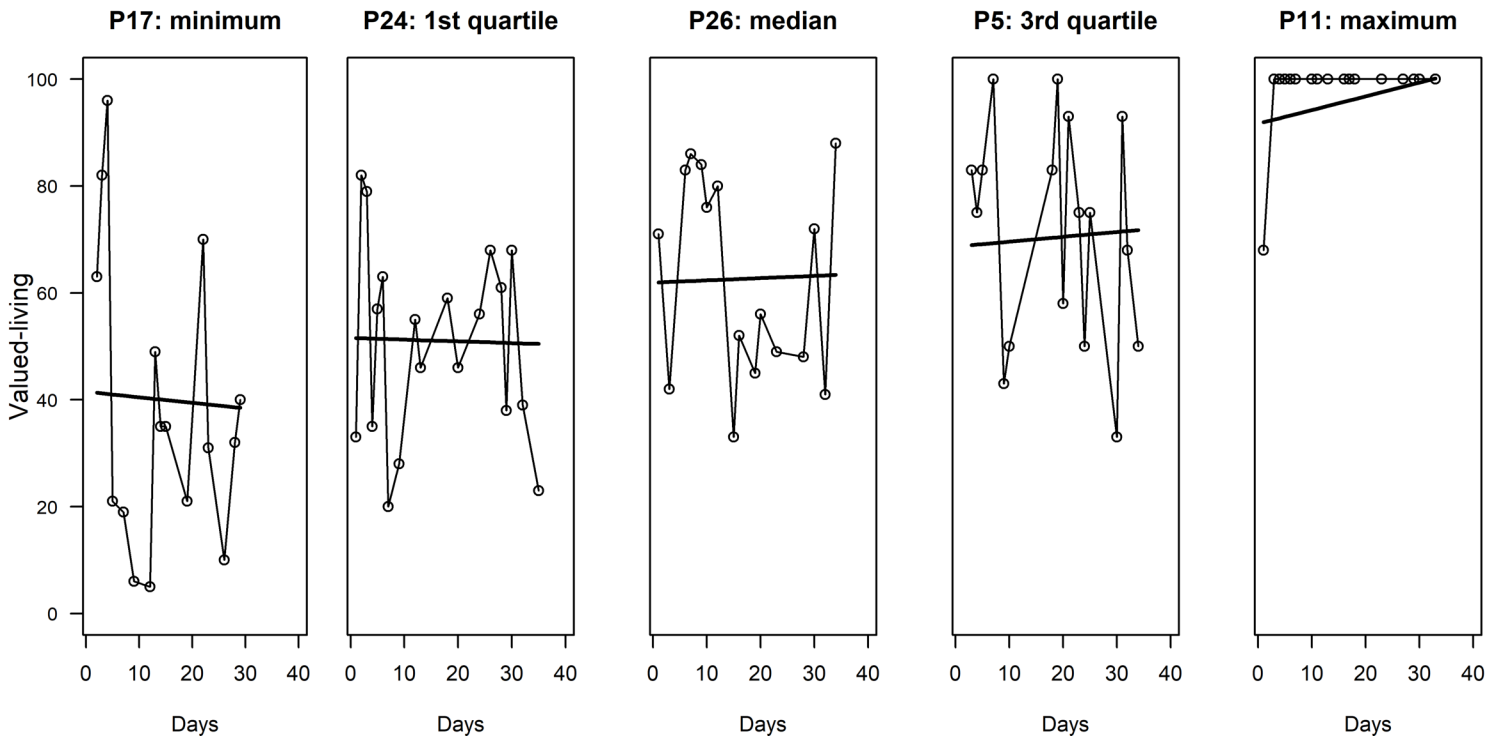


Figure 6.4 Raw and fitted time course for participants at the lowest, highest, and lower, middle, and upper quartile values of regression line slopes for valued-living

The model parameter estimates in Table 6.3 can be interpreted as such: (1) the intercept is the mean value of valued-living when psychological distress is held at its mean value, (2) distress within is the change in valued-living in relation to a person's daily (daily-level) change in psychological distress—i.e., the deviation from one's own mean at a specific moment, and (3) distress between is the change in valued-living in relation to a person's average (person-level) change in psychological distress.

Looking at the impact of psychological distress, Table 6.3 shows that valued-living increases in relation to both daily ($t(568) = -9.3$, $p < .001$, $CI_{95} = -0.46, -0.30$) and average ($t(35.7) = -3.3$, $p = .002$, $CI_{95} = -1.0, -.30$) decreases in psychological distress.

Time was not conserved as a predictor variable in this model as it made the model less well adjusted to the data. This can be understood in part by the relative "flatness" of the regression lines displayed in Figure 6.3, in which there is very little evident change over time.

As with the model for psychological distress, one of the reasons for which this model does not indicate a significant relationship between time and valued-living is due to the impact of the between-person random effects. Table 6.3 shows that the variance for the intercept of the random effects is quite large relative to its standard error, which indicates once again an important amount of between-person heterogeneity within the group (Bolger & Laurenceau, 2013). In this model, the standard deviation of the intercept variance indicates that 95 percent of the population varies between +/- 28.2 units of the average intercept for their group.

Similar to the model for psychological distress, another important reason for uncertainty in the estimate of this model regarding the effect of time is that the lower-level random effects are significant. An important amount of variability in valued-living is seen from week to week, although a linear pattern of change can be

approximated. It should also be noted that the reported values of valued-living are relatively high for most participants—a subject that will be discussed in the next chapter.

Finally, also seen Table 6.3 is the test for autocorrelation for which there is no evidence in the lower-level residuals.

CHAPTER VII

DISCUSSION

In this chapter, the reader will be reminded of the research problem and research questions before the results of the study are discussed. The ways in which these results contextualize themselves among other studies in the field will also be explored. Finally, some of the strengths, limitations, and the pertinence of the current study will be mentioned before pointing to directions for future study and concluding this thesis.

7.1 Recalling the research problem, study objectives, and research questions

As was previously stated, the direction of this project stems from two major issues. The main one is the important levels of psychological distress that are experienced by postsecondary students; the other is the flaws inherent to typical data-collection procedures used in psychology. Firstly, the intensity of psychological distress found within the population of postsecondary students has called for prevention programs assisting these students in navigating academic life and its related stresses (e.g., Conley et al., 2013; Martineau et al., 2017). Secondly, there are many issues inherent to typical quantitative data-collection procedures, such as collecting data in laboratory settings,

using only a few data collection moments, and relying on lengthy time frames for recall in autobiographical questionnaires. These issues call for alternative ways of evaluating participants' experiences to better understand them, and to better understand the mechanisms of action at work in these preventive interventions (Enkema et al., 2020; Shiffman et al., 2008).

In an attempt to examine these two issues, our research team sought to extend a recent study (Grégoire et al., 2020) and explore the levels of students' psychological distress and valued-living throughout the Korsa workshops. At the same time, we wanted to palliate for the data-collection difficulties previously met by our team, representing important blind spots in the research field (e.g., Bradburn et al., 1987; Ross, 1989). We chose to focus on the levels of psychological distress and valued-living, wondering how students' daily levels of psychological distress and valued-living would change throughout the intervention. We also wondered how daily levels of psychological distress would relate to daily levels of valued-living. Only some of the results obtained were coherent with our hypotheses, which will be described next.

7.2 Exploring the results

7.2.1 Hypothesis 1

Our first hypothesis stated that daily levels of psychological distress would decrease throughout the intervention, which is not what was demonstrated from the results of this study. A major influence in the inability to find a clear pattern was the variability in psychological distress experienced by participants. Looking at the average levels of psychological distress (see Figure 6.1), it can be appreciated that some participants rated higher on the scale, while others rated much lower. The variability in the levels of psychological distress may not have allowed for the teasing out of a trend as clearly as if the group had been separated into tiers (e.g., more distressed, less distressed, "clinically" distressed). To know this would have required a baseline measure of psychological distress, which was not done.

On the other hand, even though the participants may have made up a heterogeneous group, when looking at the quartiles in Figure 6.2, and after having analysed each individual's average level of distress over the time of the intervention, it can be understood that very few people (n=3) did have significant decreases in psychological distress, while for all the other participants, the changes were not significant in either direction. This is acutually quite interesting, as we could assume that psychological distress remained stable throughout the intervention. This is of importance for several reasons, one being that many different processes were explored throughout the entire program with the aim of helping to navigate psychological distress. It can be

understood that these different processes would resonate for some and not for others, and would also follow different timelines regarding their integration. Thus, for example, some participants would perhaps show decreases in psychological distress initially in incorporating meditation into their self-care strategies. Others would benefit more greatly later in the program from the ways in which the Matrix tool allowed them to step back from unhelpful thoughts, as such these changes would only be seen after the study ended. It can be understood that there is no one-size-fits-all approach. Thus, it seems important to note that a program that allows for many different ways of navigating distress, and that allows for so many different rhythms, can nonetheless be helpful in maintaining levels of distress as opposed to seeing them worsen. This intervention, and the evaluation of psychological distress, occurred during the middle of the school semester. We know that these participants were undergoing the regular stresses of midterm examinations, projects, and preparations for final examinations. Even within this context, psychological distress did not tend to increase. This allows for an appreciation of this intervention's potential role in helping participants navigate these academic stresses with more ease.

Psychological distress is a complex variable that is influenced by many factors, as was previously discussed. The participants in this study could have had multiple experiences that influenced their mood, anxiety, and levels of stress throughout the intervention, which was not aimed at controlling their environment and ridding them of stress. The focus of the intervention was to navigate stress differently. In that sense, even if a clear decrease in psychological distress was not demonstrated, the results are important on a clinical level because they reflect that although participants could experience moments of high distress, these moments did not keep them in a downward spiral, which is reflected by the lack of change in average levels of distress. It can be assumed that participants could continue the journey of "being with" their difficult experiences, which can in and of itself change the nature of these moments (e.g., from

a sign of an unavoidable downfall into a sign of momentary stress without a story attached to any negative future event).

These potential explanations are coherent with the results that are being gathered in a recent qualitative Korsa study in which participants have demonstrated that the program has allowed them to take a step back and observe themselves—their avoidance strategies, their critical internal voice—which allows for a different relationship with their distress, and a sense of agency that allows them to navigate life more readily even when the distress is present (L. Noirhomme, personal communication, April 2022). As such, participants are not saying that they are less anxious, however that they are "dealing with" their anxiety in a more nourishing way. What is also being found in this study is that, for some, this ability to observe onself does not develop, which then makes access to their relationship with their distress difficult, and so little sense of change is developped (L. Noirhomme, personal communication, April 2022). This demonstrates the reality that this current study's results are demonstrating with regards to the variability in the experiences of participants.

Further exploration also gives rise to the idea that distress increases when students are confronted to the ways in which they are living in conflict with what is important to them. The distress arising from seeing a gap between what is hoped for and what is actually being put forward in their lives could explain why levels of distress did not decrease more significantly in this study, which is similar to results that were found in a recent study (R. Shankland, personal communication, March 2022).

Furthermore, if one observes these results through the lens of Buddhist teachings, which have had both an implicit and explicit influence on Korsa, it can be understood that herein lies a reflection of the first noble truth; that there is suffering. As Korsa participants learn to navigate their stresses differently, the experience of distress (e.g. worry and sadness) would not necessarily decrease, though their relationship to these

might. As such, one may render an evaluation that does not change quantitatively, however qualitatively, one may then add that the sadness and worry are less of a problem, are even welcomed as parts of one's experience. It could then be understood that though there is suffering on one level, participants may not add another level of suffering that comes from avoiding the unpleasant emotions—which is a part of what was explored in Korsa, though not something that was captured in our EMA questionnaire. This reflects a change of view, to a wiser view, as one would comprehend through the Buddhist teachings. Adopting a view that sadness and worry are a normal response to difficult situations, ephemeral and fluctuating, can allow for a liberation from those same responses, without them having to go away. It can be understood that this type of shift was occurring in Korsa participants, however that we would be unable to discern this type of change with the chosen methodology.

As for the relationship to what was previously found regarding the Korsa program, these results are consistent with a previous EMA study's results, in which changes in levels of stress were not detected throughout the course of the program (Grégoire et al., 2020). It was anticipated that, because of a more sensitive measurement, the way of evaluating participants in this current study would have allowed a teasing out of the expected results of the intervention. In the current study, there was a narrowing into the internal experience of the participants in measuring psychological distress as opposed to stress—a broader and perhaps more ambiguous construct. There was a hope that this would have allowed for more sensitivity in the measurement of participants' experiences; assisted as well by having used more questionnaire items to evaluate this construct (five items used in the current study versus one item in the previous study). However, the potential explanations described above can elucidate why such changes were not teased out in either study.

Finally, it is true that the results of the current study do not corroborate with several postsecondary group intervention studies using typical recall-based questionnaires to

depict a decrease in psychological distress when participating in an ACT-based intervention (e.g., Daltry, 2015; Frögéli et al., 2016; Grégoire et al., 2016, 2018; Moyer et al., 2017; Mull et al., 2020; Xu et al., 2020). However, the results of this current study depict a nuanced outcome that demonstrates that this kind of change may take a different path and a different rhythm for each individual. Knowing this is important for those providing the intervention, allowing them to cultivate a trust in the process and patience; understanding that it is not necessarily required to try harder to "fix" something when some participants do not seem to be advancing along the same timeline. This attitude would model the qualities described by the psychological flexibility model, especially acceptance—it can be OK to have difficult moments; mindfulness—the importance of being in the moment and not anticipating some future result; and self-as-concept—I am more than just this particular difficult moment, and my story is defined by more than this. If healthcare professionals offering these services could adopt this posture, more space would be allowed for participants to explore their experiences without worrying that something is wrong with them. This is one of the attitudes that participants reported as being helpful in Nelson's study (2019).

7.2.2 Hypothesis 2

Our second hypothesis stated that daily levels of valued-living would increase throughout the intervention, and this is not what was demonstrated from the results of the study. Like the results for psychological distress, there was too much variability in the results to support the notion of a gradual constant increase in valued-living over time (see Figure 6.4). This is coherent with the way in which the program unfolded; in

that the process of values construction was iterative, not linear, with values being introduced from the first session after the orientation, and becoming more heavily accentuated throughout the next sessions. Thus, participants revisited their valued-living processes continually throughout the program. It can be understood that with different rhythms and different salient moments of insight along an individual's timeline, the changes in valued-living would not all follow the same path for everyone. Actually, when looking at Figure 6.4, and after having analysed each individual's average level of valued-living over the time of the intervention, it can be understood that about a third of the group (n=9) demonstrated significant increases in valued-living, another third (n=10) demonstrated the opposite pattern, while the rest had no significant change at all.

The first pattern is what would have been expected, however the other two are not, and can be explained by the phenomena shared by R. Shankland, mentioned previously. It can be understood that as participants of the program began to recognize what was truly important for them, they would also realize how "out of sync" they were with their values. This would lead to reporting less values-consistent behaviour. As the time-frame of five weeks may not allow for a turn around, it is possible that any actual change might have happened after the program ended. Meanwhile, during the weeks of the program, many participants could have been mainly navigating this confronting realization, while slowly trying to make changes towards more valued-living. This would represent the gradual and individualized process of working with values that was allowed by the program, honouring and supporting the different rhythms of a heterogenous group. The results from the recent qualitative Korsa study also support these propositions, as participants shared that it could be very difficult for them to be confronted to the fact that they don't know what is important for them (L. Noirhomme, personal communication, April 2022). At the same time, the participants of this study also shared that aligning themselves with values permitted them to move forward in their lives, even in the face of distress (L. Noirhomme, personal communication, April

2022). This reflects the kind of variability in the results of this current study. Furthermore, it is of note that some participants in this aforementioned qualitative study found it helpful to adopt values reflecting a change in attitude towards themselves, such as more kindness (L. Noirhomme, personal communication, April 2022). It can be understood that the questionnaire of this current study would not have been able to detect changes in relation to this type of valued-living, as the focus was on actions. Whereas, kindness toward oneself may show up as attitudes of welcoming and softening one's inner critic, which may not be considered as actions put forward. Hence, certain changes regarding the helpful adoption of wholesome attitudes would go undetected in the current study.

These results concerning valued-living are also consistent with those from the previous EMA Korsa study in which changes in levels of psychological flexibility were not detected throughout the intervention (Grégoire et al., 2020). There was an effort to palliate for the methodological issues in this previous study which may have prevented the detection of important changes in participants' experiences. One major change was in opting not to measure the six core processes of psychological flexibility at once using EMA. However, the flaws in this current study did not allow for the detection that was hoped for. The results of this current study do not, however, corroborate with the results of many of the studies explored previously, which show how valued-living tends to increase throughout participation in ACT-based interventions (e.g., Haeger et al., 2020; Krafft et al., 2020; Levin, An, et al., 2020; Levin, Krafft, et al., 2020; Viskovich & Pakenham, 2018). However, what could be understood here is that EMA data allow for a more nuanced picture, which may be more reflective of a gradual and sustained change versus the type of change that recall-based questionnaires may be able to detect.

7.2.3 Hypothesis 3

Our third hypothesis stated that daily levels of psychological distress would be inversely proportionate to daily levels of valued-living throughout the intervention, which is what was revealed by the study results. The impact of both average and daily levels of valued-living were tested, both of which showed a similar relationship with daily levels of psychological distress. Nonetheless, daily valued-living did predict daily psychological distress slightly more precisely. From these results it can be understood that for every increase of one point in daily levels of valued-living as compared to one's personal average, there was a decrease of 0.36 points along the psychological distress scale—a ratio of 1 to 2.75. This would mean, for example, that for someone who reports an increase in valued-living from a value of 60 to 80 at any moment, there would be a decrease in daily psychological distress of about 7 units along the psychological distress scale. For someone who scored high on that scale (80), this would represent a 9% change. The statistical significance of the relationship between the daily variables suggests the importance of choosing to live in harmony with one's values moment to moment and day to day. It would seem that that these choices can have a significant impact on one's mood, anxiety, and levels of perceived stress in that very instant of valued-living. These choices could also have an enduring effect, as the relationship that average valued-living on daily psychological distress depicts. All this bolsters the importance of including the process of valued-living in programs such as Korsa.

It should also be noted that the temporal precedence of the relationship between these two variables was not evaluated. As such, it is also possible to assume that the inverse relationship is what is being demonstrated by the data. This would mean that as one's levels of psychological distress decreased, it allowed valued-living to be cultivated

more readily. Regardless, it can be understood that a cyclical pattern could emerge: as one cultivates more valued-living, psychological distress decreases, and as psychological distress decreases, one can cultivate more valued-living. This corroborates with the complex and bidirectional relationship between other ACT processes, such as mindfulness, and distress (Shapiro, et al., 2006).

These results clarify the relationship between valued-living and psychological distress that was questioned in the Korsa study by Morin and colleagues (2020), where the effect of valued-living did not appear as expected. It can be understood how the EMA data may be more sensitive than the typical data collection methods that were used in that study—parsing apart a more nuanced view of the effect of the ACT processes on mental health. The results of the current study also corroborate the inversely proportionate relationship that was suggested between valued-living and psychological distress in the study by Grégoire and colleagues (2021).

7.2.4 The Take-home message

The results of this study depict the ways in which the sensitivity of EMA data collection can allow for more specific measurement of the variables in question. Here, it can be appreciated how the results allow for a recognition of the various routes and rhythms of transformation that can take place during the Korsa program. The intervention seems to allow for a group of individuals to find what they need over time even though they are experiencing different levels of distress. Not all advance along the program at the same pace, however the stability of their psychological distress depicts that some of

the tools provided in the Korsa program allow them to navigate increasingly stressful moments while not spiraling downward. The results also reflect the importance of guiding postsecondary students through a deep reflection on living harmoniously with their values. Though the results may not have unveiled themselves as was expected, they nonetheless offer support for the use of the Korsa program as a preventive intervention in postsecondary institutions.

7.3 Strengths

It seems unavoidable to be repetitive in stating how the EMA methodology of this current study was a major factor allowing for the results to parse apart the effects of the Korsa intervention. This intervention has been studied many times, and yet this current study—with the use of EMA—has helped to clarify the relationship between variables that have been difficult to demonstrate in previous Korsa studies. This was made possible, in part, in following the recommendations for the carrying out and reporting of EMA studies (Degroote et al., 2020; Liao et al., 2016; Stone & Shiffman, 2002). Another key point facilitating the sensitivity of our findings was in using multilevel modelling for the statistical analysis—a technique particularly appropriate for EMA data (Schwartz & Stone, 2007). All this necessarily bolstered the scientific rigour with which the study was carried out. As such, this study inscribes itself within the continuity of EMA studies demonstrating the nourishing effects of valued-living, helping to understand its role in cultivating well-being (see Berghoff et al., 2018; Finkelstein-Fox et al., 2020; Grégoire et al., 2021; Vilardaga et al., 2015).

Regarding the study's procedure, there are several key elements that differ between this current study and others and allow it to stand out as important. The first is that the intervention was delivered by experienced counsellors whose profession is accompanying postsecondary students through their difficulties. Most of the studies reviewed above offered interventions that were either delivered by therapists trainees or researchers. As much as these individuals may be able to offer skillful interventions, it can be appreciated that those who are dedicated to these helping professions may likely have developed a sensitivity that enables for a more flexible way of accompanying suffering. Since the Korsa program places a large emphasis on the qualities and attitudes embodied by the facilitator, this accrued experience and sensitivity may have positively impacted the experience of participants. A second important point is that these facilitators were offering the intervention across several different institutions at the university and collegial level, each with different institutional cultures, different study programs, and thus different student populations. This increases the generalizability of these results, reflecting the likelihood that the Korsa program could be helpful in other postsecondary institutions as well. Thirdly, all this points to the study's *in-vivo* context, in that each step of the procedure occurred on the terrain and not in a laboratory. From the participants' postsecondary settings for carrying out the intervention to their individual settings for responding to questionnaires, the emphasis was placed on being in natural element. This allows for more ecologically valid results that are less biased by the recall issues described above regarding typical research settings. Finally, participants were tested in what can be considered an intensive longitudinal study (Bolger & Laurenceau, 2013), with an average of 16 questionnaires completed per participant, and 607 observation points throughout the five weeks of the study. This allows for an in-depth observation as compared to shorter interventions or cross-sectional studies.

A final key point demonstrating the strength of this study is in the behind-the-scenes work. The development of a coherent and manualized protocol—reflecting the

knowledge and experience of our research team—was a major endeavour. Requiring several intensive months of time dedicated to that work, it was also occasioned by having offered over 400 hours of group facilitation throughout the Korsa 1.0 studies. All this engagement represents the intentionality and rigour that our team set forward in bringing Korsa 2.0 into emergence. Furthermore, from the beginning of that process, there was a vision of allowing Korsa to be out in the world, out of our hands and into the hands of many other facilitators. This process enabled several dozen Korsa groups to be offered across over a dozen institutions. Creating and allowing for these opportunities required enormous effort and involvement. Projects that span this many years, across this many institutions, and touching this many students are rare, hence the underlining of this strength.

7.4 Limitations

As much as this study attempted to adopt favourable means to assist the participants of the intervention and examine how their experiences changed, several factors impeded our ability to do so without bias and error. The following section is important in parsing out the validity of the results. However, this should be taken under consideration within the real-life context in which bias is impossible to put aside because of the nature of being human, and error is unavoidable due to the nature of causes and conditions that are beyond our control. An attempt will be made to explore the most important limitations of this study while considering this humble attitude.

7.4.1 Limitations regarding the data collection method and analysis

As was explored earlier, more salient experiences tend to overwhelm what is recalled from our past, which can lead to an overestimation of clinical symptoms in psychological research using retrospective recall questionnaires (Bradburn et al., 1987; Shiffman et al., 2008). In the current study, the recall time frame was relatively short (participants were asked about the current day), and yet participants—when asked about their mood, stress, and anxiety levels—could have reported higher levels of these unpleasant symptoms if they were feeling particularly stressed, depressed, or anxious at the moment of reporting. Schwarz (2007) reports that the intensity of our feelings are not well represented in our memories and therefore subject to a great amount of bias, even after brief delays. He explains that the intensity of an experience is often recalled on two levels: its peak and its end (Schwarz, 2007). This is another reason why participants may likely have overestimated psychological distress. On the same note, if participants were feeling particularly high levels of psychological distress during reporting, any valued-living activities done during the day may have been less salient in their recalled memories. Furthermore, it has been suggested that EOD diaries do not sufficiently reflect the fluctuations in participants' mood throughout the day (Snippe et al., 2015). Also, the latency period between the time of receiving the prompt and the time that the questionnaire disappeared (120 minutes) was long. This long latency period could allow participants to choose when to answer the questionnaire based on several defining characteristics of the moment, such as their availability, their mood, their sense of engagement in the study, their sense of engagement in valued-living. Choosing the "best" moment could create distortion since the questions aren't in search of the best answer, but the most immediate one. Finally, as prompts were sent to students at the end of the day, these likely coincided with typical activities such as meal

time or study time, and with states of fatigue. These are other reasons why certain systematic biases may have emerged. These issues could potentially have led to an underreporting or overestimation of both valued-living and psychological distress.

Another issue related to the sampling method is that all the participants of the study did not respond to all the questionnaires that they were sent (69% response rate). Stone and Shiffman (2002) recommend that we be judicious and consider this missing data as systematic as opposed to random. Though it is difficult to do anything but speculate here, based on this recommendation it can be considered that the missed prompts, had they been answered, would have changed the data and thus the results significantly. One suggestion for correcting this issue would have been to increase the number of incentives offered for participation in the study. Another suggestion would be to increase the density of the prompting so that more data points could be collected per week, while still keeping the burden to a minimum for participants of the study. It cannot be known whether these changes may have helped to detect the same patterns with more sensitivity, or whether the patterns would have been different. As such, it is important to carefully consider the validity of this study's results.

Furthermore, attrition must also be considered regarding the data collection limitations. From the initial sample, if all those who came to more than one session (post-orientation) are included in the calculation, the attrition rate would be 35%. Though this level seems high, it must be understood that the intervention that is proposed is much longer than many ACT-based group interventions that were described above. The engagement from students is also important, with personal practice to be done between sessions amid their regular study activities. Furthermore, little incentives are offered to students, who receive this intervention freely. Finally, as the intervention is offered to students who have difficulty navigating their stress, many drop out of the study when midterm and final examination periods arrive and pressure mounts. All this considered, the attrition rate is comparable to that of the previous Korsa study (Grégoire et al.,

2020). What would be important to consider in future studies are the lasting effects of the intervention, with the hypothesis that these longer interventions, though they may generate higher attrition levels, may also have longer-lasting positive effects on participants.

Finally, regarding the statistical analysis of the data, it must be mentioned that it was decided to hold predictions lightly by not analyzing the different predictors hierarchically. Beal and Weis (2003) present this method as the most basic procedure for evaluating EMA data. Though this may represent a coherent bottom-up approach, it may not have allowed for a teasing out of the effect of time, independent of the other predictors. This was a surprising finding as it was hypothesized that improvements would be noted over time. Further and more robust analysis would be pertinent moving forward.

7.4.2 Limitations regarding the questionnaire

One issue is that there is a ceiling effect in the measurement of valued-living, in that many participants scored high on average on this variable, leaving little room for improvement. This lack of variability was noted after the first wave of data collection, which is one reason why the response scales were changed for the second wave. This modification in scales—which is in and of itself is a limitation of this study—did not correct for the ceiling effect. It may be possible, as has been found with other mindfulness-based measures, that these types of scales are not valid for many reasons; one being that participants tend to overestimate their capacities (Grossman, 2019).

Another related issue is that participants may conflate their ratings of valued-living with their aspiration to live more closely in line with their values; their ratings thus reflecting level of importance of valued-living rather than actual valued-living. This trend was noted in other mindfulness-based scales (Grossman, 2011). If these flaws are inherent to the measures used here, then this current study may not have been able to detect the true trend in valued-living over the span of the intervention.

7.5 Social and scientific pertinence of this study

> To the question of beauty […] science as a way of knowing is too narrow for the task. […] We see the world more fully when we use both [science and traditional indigenous knowledge]. […] The vastness and the richness of reality cannot be expressed by the overt sense of a statement alone (Russel, as cited in Kimmerer, 2013, pp. 45–47).

> There are two kinds of intelligence: one acquired, as a child in school memorizes facts and concepts from books and from what the teacher says, collecting information from the traditional sciences as well as from the new sciences. […] There is another kind of [intelligence], one already completed and preserved inside you. A spring overflowing its spring box. A freshness in the centre of the chest. […] This second knowing is a fountainhead from within you, moving out (Rūmī, 13th century, as cited in Rūmī, 1995, p. 178).

It seems impossible to speak of the meaning and pertinence of this study without first recognizing the limitations of the paradigm within which this, and many empirical studies, find themselves. This paradigm which, as stated in the above citations, is too narrow to know beauty and is a stranger to this wisdom of the freshness in the chest. If the Korsa intervention is one that finds itself enmeshed in the journey of transformation, then it is a thing of beauty. It is also an accompaniment in finding that fountainhead in

each individual, that place which already "knows" something about transformation and healing. These mysterious complexities are not capable of being captured within the limited scope of our data collection procedures, and so it is impossible to do them justice through studies of such sort.

The best that can be done with a study like this current one is to approximate, while likely not even coming close to acknowledging the complexity and the mystery involved in a transformation process; yet alone being able to honour these as essential elements of the journey. This is not a flaw particular to the current study, and so we are presented with a complex task of holding on one side the impossibility of "knowing" a significant piece of the transformation process, while also holding on another side an honourable attempt to point to something essential in a way that is unique.

As such, a large part of the pertinence of this study is found in the use of EMA data collection procedures that have allowed for a unique understanding of the dynamic relationship between psychological distress and valued-living. This study also points to the often-ignored flaws of typical data collection; calling for the veil to be raised and for decade-old reasoning about these flaws to be considered in deciding the ways in which empirical studies are carried out. There is also a recognition of the difficulties in carrying out EMA in an "ideal" way. Yet if even a flawed approximation of this ideal—such as the methodology used in this study—can allow for new perspectives, then it seems pertinent to invest resources in more studies of this sort.

One important bridge that the EMA data enabled between the research world and the clinical world was in recognizing the notion of allowing different rhythms of transformation within the Korsa process. Though this may be evident for those in the clinical world, it may bring solace to be able to see concrete evidence that these different paths can allow for a stability in levels of distress, even when the protocol is set up in a way in which one might think that participants can be "left behind". This is

a demonstration of the importance of within-person studies, with more concern for individual patterns and contextual influence than for group averages.

Finally, though it is true that the EMA procedure forced the use of a precise measure of one aspect of psychological flexibility, it is important to remember that this protocol was delivered in a way in which all aspects of the ACT model were integrated into the intervention. The target audience was diverse and so was offered access to a diverse set of ways in which to navigate their heterogeneous distress. As much as this limited methodology allowed, there was an attempt to honour human complexity through a vastness and richness of options to choose from. Many parts of the journey remained open for participants to decide: which elements of ACT to apply, when to apply them, where to apply them, and for which types of distress they could be pertinent. This challenges Hofmann and Hayes's (2019) proposition of parsing apart human complexity into manageable issues, which seems incoherent in an approach where "control" is recognized as a problem in and of itself. Contrary to the proposition made by these authors, this current study reflects a possibility of approaching many complex difficulties with a similar fierce attitude (open, centred, engaged), without having to know exactly how to "manage" each specific difficulty and without having to "know", in the way of Rūmi's first type of intelligence, exactly where we are headed, navigating wisely as the waves emerge.

7.6 Directions for future study

If any future study were to be resonant with the shift in paradigm that is being hinted at above, then it would need to adopt a humility towards the understanding of the complexity of human beings and their healing and transformation processes. Phenomenological qualitative studies attempt to do so, as was seen above in the studies by Nelson (2019) and Rondeau and colleagues (2019). To truly lean into the mystery, one must attempt to drop any notion of an agenda and leap into the ambiguous as a trusting in the emergence of experience allows for wisdom to shine through. Studying the experience of participants through widely open-ended questions can allow for a richness of accounts to be known. It is a shame that the politicized and capitalistic academic system prevents more support for these types of studies (Devers, 1999). Unfortunately, my academic training has found itself within this system and so the creativity as to future directions seems quelled by the thinking engrained into me. Thus, the following attempts at envisioning more skillful studies are only shadows of what potential there may be.

One possible direction, without having to drastically change the procedure of this study, would be to change the EMA prompts from quantitative questionnaires to short qualitative questions. In this way, a density of reports could still be accumulated without having to narrow down what we are looking at, to the detriment of discovery. Some questions that could allow for an exploration of psychological distress: 1) describe the current experience of your emotional state; 2) using a metaphor, describe your current mood; 3) compare your current psychological state to how it was this morning; 4) describe where you are feeling your current mood in your body and what that is like. Some questions that could allow for an exploration of psychological

flexibility: 1) describe the relationship to your values right now; 2) describe how what you are doing right now is resonant or dissonant with what is important to you; 3) using a metaphor, tell the story of your current relationship with your thoughts; 4) paint a picture with words of your current relationship to your experience; 5) describe your current experience as though you were watching from the corner of the room.

If the study were to remain quantitative, then an important adjustment could be made in the density of the questionnaires, allowing for more prompts. In EMA data collection, the resolution with which we can see the changes in processes over time depends largely on the frequency with which participants are assessed (Shiffman et al., 2008). Shiffman and colleagues (2008) report that it is typical for EMA studies to assess participants three to five times per day, while Liao and colleagues (2016) report a median of seven prompts per day in their review of EMA studies. It could therefore be possible to allow for more frequent assessment periods without having a much higher attrition rate, allowing for a better evaluation of the relationship between valued-living and psychological distress. What is uncertain is if an increase in prompting could be maintained over five weeks. The longest study reviewed by Liao and colleagues (2016) was done over two weeks, thus leaving doubt about how a denser prompting schedule would affect attrition. Regardless, this change would perhaps also require offering more incentives for participants to answer questionnaires (e.g., more frequent drawings of prizes, course credit, etc.).

Another adjustment to be made, if the study remained like the current version, would be to evaluate levels of distress pre-intervention. This would allow for a teasing apart of trends related to distress levels, as mentioned earlier; confirming whether the intervention is more effective for those with high levels of distress, as has been shown elsewhere for mindfulness-based interventions (e.g., Goldberg et al., 2018).

Furthermore, it would be of interest to adapt the methodology to reevaluate the effect of time, which was not found to be a significant predictor in this study. Many of the changes named above could allow to better detect the effect of time, such as increasing the density of prompts and using more instantaneous measure as opposed to EOD measures. Other factors could be to increase the sample size significantly, and to use different statistical analysis techniques.

Finally, it seems important to note that Korsa, version 2.0, was the "right" intervention when it was developed six years ago by our team. It resonated more with the place in which we found ourselves after having journeyed on our paths while offering the first iteration of the protocol. In the years since that time, we have journeyed further and much has changed, including among so many elements: three of those who developed the protocol have had children, two have obtained a Ph.D., one has been at the reins of a new mindfulness graduate program that has taken off, while the author of this thesis has been steeped in and deeply touched by the Dhamma, which now more clearly frames much of experience. It seems evident that for an intervention to remain coherent, it must know how to evolve along with the lives, interests, and ever-constructing values of those who offer it. In a program such as MBSR, it is emphasized how the true protocol is what is happening in the room (J. Kabat-Zinn, personal communication, June 2015). MBSR is set up and offered in a way in which there is a constant coming back to and circling about the singular process of mindfulness (in all its complexity). Having this central process as a focus that can be returned to at any time and tied into all things allows for many breaks from the protocol. It also allows for trust in following the direction of the group while maintaining only a light touch on the agenda. The Korsa protocol cannot afford such flexibility because of the way in which it has been conceived and manualized. As much as psychological flexibility is at the core of the intervention, there is an inherent rigidity in having to pass through the planned agenda. As much as there is an emphasis placed on allowing for spaciousness within the intervention, its nature may easily bring facilitators to use the protocol as a tight

scaffolding that delineates experience. In that sense, it can be difficult to cultivate—as the writer, poet, and mystic John O'Donohue (2004) describes of the river—a surprise in the unfolding of experience. Although every group that has been offered has had a different flavour, it remains that Korsa 2.0 requires that we follow the recipe tightly, and this seems incoherent with a point of view in which each transformation process takes on its own path. A path that must be discovered together as participant and facilitator, both accompanying each other along the path. In a paradigm where the facilitator is taking on the role of accompanying as a principle posture rather than leading or teaching, there is more room to attune to the emergence of what is happening in the group. This allows them to attune more to the affective elements of each participants' experience—which according to Buirski and colleagues (2020) is the most important factor in guiding effective treatment. Mainly for these reasons, the Korsa intervention's scope seems limited. As much as it has been transformative for so many, it is no longer alive in the heart of this author. This points to its inability to evolve alongside all journeys, and a call for yet another iteration that is even more flexible.

Thus, what seems the most resonant with a future study would be to overhaul the protocol, ushering in a more flexible and evolving group process. In this new protocol, the main intervention would be found in the group facilitators embodying the qualities of psychological flexibility. This would create the container for transformation, while any exercises and psychoeducation would be secondary. These exercises would allow for more room for participants to reflect on and share about their experiences, while allowing for a knowing of the ways in which experience is being framed skillfully and unskilfully. This would equally require a new training for the facilitators in which what would be instilled are the attitudes that are coherent with this approach to transformation; such as patience, kindness, curiosity into the unknown and ambiguous, and authenticity. What could then be of interest would be to compare this new protocol to Korsa 2.0, running both groups in parallel, while also evaluating the ways in which

facilitators deliver and adhere to the proposed protocols. This would perhaps allow for some clarity regarding the role of the facilitator's posture versus that of the protocol in effecting change. The results of a recent qualitative Korsa study support this type of change, reflecting how the group process was the most important aspect for participants, rather than the content of the program (L. Noirhomme, personal communication, April 2022).

7.7 Conclusion

As this thesis boils down to its end, there is a sense of tension and disquietude. There is a wish to honour the suffering of the momentous number of postsecondary students whose realities were somehow known and thus influenced the direction of this study and its results. That this suffering was necessary for anything of use to come from this study reflects the importance of suffering itself. In this society's search for happiness and ease, there is a forgetting of this necessary path through hardship. This path which has ushered us into being through millennia of evolving and adapting to circumstances. Korsa has not been about taking away that suffering, but about navigating it, allowing it, taking it in and permitting the wisdom of its journey to emerge. The tension and disquietude are thus natural elements of this path, and they emerge as I wonder if any of these words will have done anything wholesome whatsoever to abate our society's "malady of ignorance" and our pathologizing of normal human tendency—a mission held in part by the ACT community.

Whether that is the case is not only up to me, but also to you, the reader. How will you carry this with you in your day? Where will these words leave a trace, if at all? As the student participants of this study have allowed us to know, there is a way to attenuate the cycle of distress and open our eyes to the path of healing before us. Korsa has been one way in which the veil has been lifted for some, allowing for the limited ways of approaching our difficulties to be opened up and cleared out for more harmonious ways of living in resonance with what is meaningful and important in life. As infinitesimal as this study may be in the sea of studies of human suffering, there must be some acknowledgement given to how amazing it is that even with all the craziness that abounds in our society, there can be change, shifts in perspective are possible, and there are ways to navigate the storm to the other side.

> Not knowing is the only cup that can hold the world (Ghalib, as cited in Cole-Dai & Wilson, 2017, p. 85).

ANNEX A

ETHICAL APPROVAL AND RENEWAL CERTIFICATES

UQÀM
Université du Québec à Montréal

CIEREH
Comité institutionnel d'éthique de la recherche avec des êtres humains

No du certificat: S-705024
No de la demande : e412

CERTIFICAT D'ÉTHIQUE

Le *Comité institutionnel d'éthique de la recherche avec des êtres humains* de l'UQAM, a examiné le protocole de recherche suivant et jugé conforme aux pratiques habituelles et répond aux normes établies par le Cadre normatif pour l'éthique de la recherche avec des êtres humains de l'UQAM (juin 2012).

Protocole de recherche

Chercheur(e) principal(e) : Simon Grégoire
Unité de rattachement : Département d'éducation et pédagogie
Équipe de recherche :
Co-chercheur(s) : Lise Lachance et Geneviève Taylor (département d'éducation et pédagogie UQAM); Thérèse Bouffard (département de psychologie UQAM); Louis Richer (UQAC); **Étudiants de cycles supérieurs** : Brent Beresford, Andréanne Laframboise et Laurence DeMondehare (UQAM); Lysa-Marie Hontoy (Université de Montréal)
Étudiant(s) réalisant leurs projets de mémoire ou de thèse (incluant les thèses de spécialisation) dans le cadre du présent protocole de recherche : s/o
Titre du protocole de recherche : *Implantation d'un système de formation pyramidal destiné à évaluer un programme de promotion du bien-être et de la réussite scolaire en milieu collégial et universitaire*
Organisme de financement (le cas échéant): CRSH (2015-2018)

Modalités d'application

Le présent certificat est valide pour le projet tel que soumis au CIEREH. Les modifications importantes pouvant être apportées au protocole de recherche en cours de réalisation doivent être communiquées au comité[1].

Tout évènement ou renseignement pouvant affecter l'intégrité ou l'éthicité de la recherche doit être communiqué au comité.

Toute suspension ou cessation du protocole (temporaire ou définitive) doit être communiquée au comité dans les meilleurs délais.

Le présent certificat d'éthique est valide jusqu'au **30 juin 2016**. Selon les normes de l'Université en vigueur, un suivi annuel est minimalement exigé pour maintenir la validité de la présente approbation éthique. Le rapport d'avancement de projet (renouvellement annuel ou fin de projet) est requis pour le **30 mai 2016.** Vous recevrez automatiquement un premier courriel de rappel trois mois avant la date d'échéance du certificat.

Éric Dion, Ph.D.
Professeur
Vice-président

30 juin 2015
Date d'émission initiale du certificat

[1] Modifications apportées aux objectifs du projet et à ses étapes de réalisation, au choix des groupes de participants et à la façon de les recruter et aux formulaires de consentement. Les modifications incluent les risques de préjudices non-prévus pour les participants, les précautions mises en place pour les minimiser, les changements au niveau de la protection accordée aux participants en termes d'anonymat et de confidentialité ainsi que les changements au niveau de l'équipe (ajout ou retrait de membres).

UQÀM
Université du Québec à Montréal

CIEREH
Comité institutionnel d'éthique de la recherche avec des êtres humains

Le 5 avril 2016

Monsieur Simon Grégoire
Professeur
Département d'éducation et pédagogie

Objet : Rapport de suivi éthique du projet : «*Implantation d'un système de formation pyramidal destiné à évaluer un programme de promotion du bien-être et de la réussite scolaire en milieu collégial et universitaire*»
N/Réf. 2014_S_705024_e_412_376

Cher monsieur,

En référence au projet de recherche susmentionné ayant reçu l'approbation initiale au plan de l'éthique le 30 juin 2015, le Comité institutionnel juge votre rapport d'avancement conforme aux normes établies par la Politique no 54 sur l'éthique de la recherche avec des êtres humains (2015) et délivre le renouvellement de votre certificat d'éthique, valide jusqu'au **30 juin 2017.**

Le présent rapport annuel d'avancement du projet n'implique aucun changement au niveau de l'équipe de recherche universitaire.

En terminant, je vous rappelle qu'il est de votre responsabilité de communiquer au Comité institutionnel les **modifications importantes**[1] qui pourraient être apportées à votre projet en cours de réalisation. Concernant le prochain rapport de suivi éthique (renouvellement ou fin de projet), **vous recevrez automatiquement un premier courriel de rappel trois mois avant la date d'échéance du certificat.**

Le Comité institutionnel vous souhaite le plus grand succès dans la réalisation de cette recherche et vous prie de recevoir ses salutations les meilleures.

Le président,

Éric Dion, Ph.D.
Professeur

[1] Modifications apportées aux objectifs du projet et à ses étapes de réalisation, au choix des groupes de participants et à la façon de les recruter et aux formulaires de consentement. Les modifications incluent les risques de préjudices non-prévus pour les participants, les précautions mises en place pour les minimiser, les changements au niveau de la protection accordée aux participants en termes d'anonymat et de confidentialité ainsi que les changements au niveau de l'équipe (ajout ou retrait de membres). Les **demandes d'approbation de modifications** afférentes à ce projet seront dorénavant traitées via le système eReviews.

UQÀM
Université du Québec à Montréal

CIEREH
Comité institutionnel d'éthique de la recherche avec des êtres humains

Le 21 septembre 2017

Monsieur Simon Grégoire
Professeur
Département d'éducation et pédagogie

Objet: Rapport de suivi éthique
Titre: «*Implantation d'un système de formation pyramidal destiné à évaluer un programme de promotion du bien-être et de la réussite scolaire en milieu collégial et universitaire*»
No : 412_e_2017 (Anciennement S-705024), rapport 720
Statut : En cours

Monsieur,

En référence au projet de recherche susmentionné ayant reçu l'approbation initiale au plan de l'éthique de la recherche le **30 juin 2015**, le Comité institutionnel juge votre rapport d'avancement conforme aux normes établies par la Politique no 54 sur l'éthique de la recherche avec des êtres humains (2015) et délivre le renouvellement de votre certificat d'éthique, valide jusqu'au **31 août 2018**.

Le présent rapport annuel d'avancement du projet rapporte l'ajout des personnes suivantes au sein de l'équipe de recherche universitaire :

- **Alexandra Nedelcu** (Réalisation de la thèse doctorale dans le cadre de ce projet de recherche – Université de Sherbrooke)

En terminant, je vous rappelle qu'il est de votre responsabilité de communiquer au Comité institutionnel les **modifications importantes**[1] qui pourraient être apportées à votre projet en cours de réalisation. Concernant le prochain rapport de suivi éthique (renouvellement ou fin de projet), **vous recevrez automatiquement un premier courriel de rappel trois mois avant la date d'échéance du certificat.** Selon les normes de l'Université en vigueur, un suivi annuel est minimalement exigé pour maintenir la validité de la présente approbation éthique, à défaut de quoi, le certificat pourra être révoqué.

Le Comité institutionnel vous souhaite le plus grand succès dans la réalisation de cette recherche et vous prie de recevoir ses salutations les meilleures.

Le président,

Yanick Farmer, Ph.D.
Professeur

[1] Modifications apportées aux objectifs du projet et à ses étapes de réalisation, au choix des groupes de participants et à la façon de les recruter et aux formulaires de consentement. Les modifications incluent les risques de préjudices non-prévus pour les participants, les précautions mises en place pour les minimiser, les changements au niveau de la protection accordée aux participants en termes d'anonymat et de confidentialité ainsi que les changements au niveau de l'équipe (ajout ou retrait de membres). Les **demandes d'approbation de modifications** afférentes à ce projet seront dorénavant traitées via le système eReviews.

UQÀM CIEREH
Université du Québec à Montréal
Comité institutionnel d'éthique de la recherche avec des êtres humains

Le 28 août 2018

Monsieur Simon Grégoire
Professeur
Département d'éducation et pédagogie

Objet: Rapport de suivi éthique
Titre: « *Implantation d'un système de formation pyramidal destiné à évaluer un programme de promotion du bien-être et de la réussite scolaire en milieu collégial et universitaire* »
No : 412_e_2018, rapport 1139
Statut : En cours
Source de financement : CRSH

Monsieur,

En référence au projet de recherche susmentionné ayant reçu l'approbation au plan de l'éthique de la recherche le **30 juin 2015**, le Comité institutionnel juge votre rapport d'avancement conforme aux normes établies par la Politique no 54 sur l'éthique de la recherche avec des êtres humains (2015) et délivre le renouvellement de votre certificat d'éthique, valide jusqu'au **31 juillet 2019**.

Le présent rapport de suivi annuel implique l'ajout de ces personnes au sein de l'équipe de recherche universitaire :
ÉtudiantEs réalisant leur projet de recherche dans le cadre de cette demande : Brent Beresford (UQAM); Lysa-Marie Hontoy (UdeM)

En terminant, je vous rappelle qu'il est de votre responsabilité de communiquer au Comité institutionnel les **modifications importantes**[1] qui pourraient être apportées à votre projet en cours de réalisation. Concernant le prochain rapport de suivi éthique (renouvellement ou fin de projet), **vous recevrez automatiquement un premier courriel de rappel trois mois avant la date d'échéance du certificat.** Selon les normes de l'Université en vigueur, un suivi annuel est minimalement exigé pour maintenir la validité de la présente approbation éthique, à défaut de quoi, le certificat pourra être révoqué.

Le Comité institutionnel vous souhaite le plus grand succès dans la réalisation de cette recherche et vous prie de recevoir ses salutations les meilleures.

Le président,

Éric Dion, Ph. D.
Professeur

[1] Modifications apportées aux objectifs du projet et à ses étapes de réalisation, au choix des groupes de participants et à la façon de les recruter et aux formulaires de consentement. Les modifications incluent les risques de préjudices non-prévus pour les participants, les précautions mises en place pour les minimiser, les changements au niveau de la protection accordée aux participants en termes d'anonymat et de confidentialité ainsi que les changements au niveau de l'équipe (ajout ou retrait de membres). Les **demandes d'approbation de modifications** afférentes à ce projet seront dorénavant traitées via le système eReviews.

ANNEX B

PROPOSED PROMOTIONAL POSTER DESIGN

LES ATELIERS KORSA

Vivre le stress autrement

En suédois, Korsa signifie franchir, traverser.

Korsa, c'est aussi le nom donné à une toute nouvelle série d'ateliers élaborés afin d'aider les étudiants collégiaux et universitaires qui vivent des difficultés dans le cadre de leurs études et qui luttent étudiant(e)s notamment avec du stress ou de l'anxiété. Parce que si les études postsecondaires peuvent être enrichissantes, elles peuvent aussi être stressantes, angoissantes et exténuantes…

Les ateliers Korsa ont été créés par une équipe d'intervenants et de chercheurs en psychologie afin de permettre aux étudiant(e)s d'acquérir des habiletés et des stratégies efficaces et de compléter leurs études avec succès, tout en maintenant un bon équilibre de vie. Inspiré d'un modèle d'intervention robuste et animé par des formateurs chevronnés, cet ensemble de cinq ateliers est offert dans un climat professionnel, sécuritaire et respectueux.

Les ateliers Korsa sont offerts gratuitement au sein de votre établissement. Ils sont d'une durée de 2 heures et demie chacun et se font en groupe de 8 à 15 personnes. Pour en savoir plus, veuillez consulter notre site web : www.korsa.uqam.ca

Korsa

ANNEX C

KORSA WEBSITE SCREENSHOTS

Korsa

ACCUEIL ATELIERS INSCRIPTIONS CERTIFICATION RECHERCHE ÉQUIPE

NOUS JOINDRE

Amorcer des études post-secondaires, c'est un peu comme entreprendre un long voyage en mer.

Pour certains, ce voyage se fait en eau calme sans trop de problèmes mais pour d'autres, il se fait plutôt sur une mer trouble et houleuse parsemée d'intempéries. Pour ces étudiant(e)s, la traversée est souvent stressante, angoissante, et exténuante.

En suédois, Korsa signifie traverser, franchir.

Ce projet a été crée dans l'espoir d'aider ceux et celles qui vivent des difficultés dans le cadre de leurs études et qui luttent notamment avec du stress ou de l'anxiété.

Deux services sont offerts dans le cadre du projet. Le soutien de groupe vise à permettre aux étudiant(e)s de prendre part à des ateliers de 10 à 12 participants et développer des stratégies simples et efficaces afin de compléter leurs études avec succès, tout en maintenant un bon équilibre de vie. Le soutien individuel offre la possibilité aux étudiant(e)s d'être jumelés avec un pair aidant dans leur établissement et de développer avec ce dernier une relation privilégiée.

Suite...

Inscriptions

TÉMOIGNAGES

Pendant ma première session, j'ai éprouvé le stress, la perte de confiance en moi et la crainte de ne pas réussir dans mes études. Grace aux ateliers Korsa, j'ai découvert des outils qui m'aident à surmonter les moments difficiles qui arrivent dans ma vie. Maintenant, je me sens plus à l'aise avec mes études, j'ai un nouveau regard sur moi-même et mes compétences et je suis capable de mieux gérer mon stress.

Korsa me servira tout au long de la vie. Il m'a permis de trouver une fondation plus solide aux divers obstacles que je rencontre dans mes études, mais aussi dans ma vie en générale.

Korsa me servira tout au long de la vie. Il m'a permis de trouver une fondation plus solide aux divers obstacles que je rencontre dans mes études, mais aussi dans ma vie en générale.

Grâce aux ateliers Korsa, j'ai découvert des outils qui m'aident à mieux gérer mon stress et à surmonter les moments difficiles qui arrivent dans ma vie. Maintenant, je me sens plus à l'aise avec mes études, j'ai un nouveau regard sur moi-même et mes compétences et je suis capable de mieux gérer mon stress

Korsa, c'est aussi un projet de recherche-intervention en constante évolution

Grâce au financement du Conseil de recherches en sciences humaines du Canada (CRSH) et des Fonds de recherche société et culture du Québec (FRQSC), notre équipe mène depuis 2012 divers types de recherches scientifiques (p.ex., essais randomisés contrôlés, études longitudinales intensives à l'aide de la méthode d'évaluation écologique instantanée, études qualitatives à partir d'entretiens semi-structurés). À ce jour, de nombreux articles, mais aussi des communications scientifiques, ont été produites en marge du projet Korsa.

Suite...

Korsa

ACCUEIL ATELIERS INSCRIPTIONS CERTIFICATION RECHERCHE ÉQUIPE

NOUS JOINDRE

ATELIERS

Depuis 2012, les ateliers Korsa sont offerts au Canada et en Europe dans les établissements post-secondaires. Les ateliers Korsa s'inspirent de l'approche de l'acceptation et de l'engagement, soit une approche comportementale et cognitive de troisième vague robuste et novatrice. Les études empiriques montrent que cette approche permet d'accroître de manière significative le mieux-être et la qualité de vie des individus aux prises avec des difficultés liées au stress et à l'anxiété.

Offerts par des formateurs dynamiques et compétents, les ateliers Korsa n'ont rien d'ennuyant. Les participants sont notamment invités à pratiquer diverses formes de méditation, à participer à des exercices individuels ou en petits groupes et à échanger entre eux. Tout est mis en place pour leur permettre d'apprendre de nouvelles stratégies pour affronter leur stress et leur anxiété dans un climat professionnel, sécuritaire et respectueux.

Inscriptions

Les étudiant(e)s qui prennent part aux ateliers Korsa sont notamment amenés à:

- Clarifier ce qui compte vraiment pour eux, c'est-à-dire les buts et les valeurs qui donnent un sens à leur vie;
- S'engager dans des actions leur permettent d'atteindre leurs buts et faire vivre leurs valeurs;
- Identifier les pièges qui contribuent à accroître leur stress et leur anxiété dans le cadre de leurs études et mettre en place des stratégies simples et efficaces pour contourner ces pièges.
- Développer leur présence attentive (*mindfulness*), c'est-à-dire leur habileté à être attentif et vigilant à ce qui se passe à l'intérieur comme à l'extérieur d'eux, et ce avec une attitude d'acceptation.

KORSA EN IMAGES

FAQ

- **Est-ce que ces ateliers me seront utiles?** Oui, surtout si vous vivez du stress et de l'anxiété dans le cadre de vos études.
- **Qu'est-ce que je vais en retirer?** Des stratégies simples et efficaces que vous pourrez mettre en pratique tout au long de vos études et qui vous aideront à faire face à votre stress et votre anxiété de manière constructive.
- **Quelle forme prennent les ateliers?** Vous avez déjà suffisamment de cours magistraux à votre horaire! Dans le cadre des ateliers KORSA, on échange, on expérimente, on fait divers exercices. On fait les choses sérieusement, sans se prendre au sérieux...En somme, il y a très peu de bla-bla, beaucoup d'exercices, de partages, d'échanges. Habituellement, les groupes varient entre 8 et 15 personnes.
- **Est-ce que je dois prendre part à tous les ateliers?** Oui, idéalement. Les ateliers s'imbriquent l'un dans l'autre et seuls les étudiant(e)s qui auront fait l'ensemble des ateliers retireront le maximum de bénéfices.
- **Comment m'inscrire?** Cliquez sur l'onglet INSCRIPTIONS puis communiquez avec la personne en charge des ateliers au sein de votre établissement. Notez que les places sont limitées et que les premiers arrivés sont les premiers servis. Si les ateliers sont complets, vous recevrez un message vous indiquant qu'il n'est plus possible de s'inscrire.
- **Combien ça coûte?** Rien. C'est gratuit alors pourquoi ne pas en profiter! Ceci dit, les étudiant(e)s qui s'inscrivent s'engagent à participer à tous les ateliers et sont fortement invités à faire les exercices qui leurs sont suggérés entre les séances.
- **Par qui sont offerts les ateliers?** Par une équipe de formateurs chevronnés qui seront en mesure de vous guider dans vos apprentissages avec respect et professionnalisme. Les formateurs Korsa détiennent un diplôme universitaire en relation d'aide (p.ex., psychologie, orientation, travail social) et offrent sur une base régulière des services d'aide aux étudiants dans un cégep ou une université. Ils ont tous reçu une formation exhaustive et rigoureuse sur la manière d'animer les ateliers Korsa.

Korsa

ACCUEIL ATELIERS INSCRIPTIONS CERTIFICATION RECHERCHE ÉQUIPE

NOUS JOINDRE

INSCRIPTIONS

Pour vous inscrire ou avoir plus d'informations sur les ateliers Korsa, veuillez contacter la personne ressource au sein de votre établissement

UNIVERSITÉS

Université du Québec à Montréal : France Landry (landry.france@uqam.ca) ou cliquez ICI

Université de Montréal: Dania Ramirez (dania.ramirez@umontreal.ca)

HEC Montréal: Christine Smilga (christine.smilga@hec.ca)

Université Laval: : Andy Dimitri Veilleux (andy-dimitri.veilleux@fesp.ulaval.ca)

Université du Québec à Trois-Rivières: Véronique Myre (veronique.myre@uqtr.ca)

Université du Québec à Chicoutimi: François Côté (francois1.cote@uqac.ca)

Université de Lyon 1: Gabriel Marais (gabriel.marais@univ.lyon1.fr)

CÉGEPS

Collège de Valleyfield: Marie-Claude Théorêt (marie.claude.theoret@colval.qc.ca)

Cégep du Vieux Montréal: Pierre-Luc St-Hilaire (soutienauxetudes@prise2.qc.ca)

Korsa

ACCUEIL ATELIERS INSCRIPTIONS CERTIFICATION RECHERCHE ÉQUIPE

NOUS JOINDRE

RECHERCHE

Grâce à l'appui financier du Conseil de recherche en sciences humaines du Canada (CRSH) et des Fonds de recherche société et culture du Québec (FRQSC), de nombreuses études scientifiques ont été menées dans le cadre du projet Korsa au cours des dernières années. Ces études montrent notamment que les ateliers Korsa:

1. Permettent aux étudiants de cultiver leur **souplesse psychologique** et de développer un ensemble d'habiletés (p.ex., observer et décrire leurs expériences internes, agir avec vigilance plutôt que par automatisme, suspendre leurs jugements critiques à l'égard de ce qu'ils ressentent ou pensent, clarifier leurs valeurs et agir de manière à faire vivre celles-ci).
2. Aident à réduire le **stress**, **l'anxiété** et **l'épuisement** des étudiants en plus d'accroître leur **bien-être psychologique**;
3. Et favorisent **l'engagement scolaire**.

Publications scientifiques

- Grégoire, S., Lachance, L., Bouffard, T., Hontoy, L-M & DeMondehare, L. (2016). L'efficacité de l'approche d'acceptation et d'engagement en regard de la santé psychologique et de l'engagement scolaire des étudiants universitaires. *Revue canadienne des sciences du comportement, 48 (3), 221-231.* Télécharger.

Korsa

ACCUEIL ATELIERS INSCRIPTIONS CERTIFICATION RECHERCHE ÉQUIPE NOUS JOINDRE

L'ÉQUIPE

Le projet Korsa est présentement piloté par une équipe de chercheurs collégiaux et universitaires, de même que par une solide équipe de collaborateurs dans les milieux de pratique. En ce moment, le projet est financé par les Fonds Société et Culture du Québec (FRQSC).

Chercheur principal:

- Simon Grégoire, Ph.D. Professeur titulaire au département d'éducation et de pédagogie (UQAM), directeur du Groupe de recherche et d'intervention sur la présence attentive (GRIPA)

Co-chercheurs:

- Thérèse Bouffard, Ph.D. Professeure titulaire au département de psychologie (UQAM)
- Lise Lachance, Ph.D. Professeure titulaire au département d'éducation et pédagogie (UQAM), chercheure régulière au GRIPA
- Carole Vezeau, Ph.D. Département de psychologie du cégep Régional de Lanaudière et Département de psychologie de l'UQAM
- Michel Perreault, Ph.D. Professeur au département de psychiatrie (McGill), chercheur à l'Institut Douglas

Coordonnatrice :

- **Gaelle Saules**, étudiante au baccalauréat en psychologie, UQAM, membre du GRIPA

Formateurs:

- **Brent Beresford**, Candidat au doctorat en psychologie (Ph.D) et chargé de cours à l'UQAM.

ANNEX D

KORSA FACILITATOR NOTES

Feuille de route – Atelier 1

- **Accueil des étudiants**
- **Présentation des formateurs et des étudiants (15 min)**
- **Check-in (5 min)**
- **Historique des ateliers (15 min)**
  - Plusieurs étudiants collégiaux et universitaires vivent du stress et ont peu de ressources
  - Les ateliers KORSA ont été développés à l'automne 2012 et sont offerts dans les universités et les cégeps au Québec
  - Basés sur l'approche ACT
  - KORSA signifie « traverser, franchir » en suédois
  - Les études post-secondaires peuvent être comparées à un long voyage en mer (parfois mouvementé)
  - KORSA permet d'offrir deux grandes voiles pour traverser les études de manière plus sereine

- **Discussion en dyades sur le stress et ses manifestations (25 min)**
  - Dyade
    - Quels sont vos symptômes de stress?
    - Que faites-vous pour vous débarrasser du stress et vous sentir mieux?
  - Retour en grand groupe :
  - Thèmes : Universalité et normalité du stress et de notre désir de contrôler et d'éliminer le stress

- **Métaphore du lavabo (10 min)**

Imaginez quelques instants que vous êtes un lavabo, de cuisine ou de salle de bain, c'est comme vous voulez, ça n'a pas d'importance!
Les sources de stress (p.ex., examens, notes) peuvent être comparées au robinet de ce lavabo et le stress, à l'eau qui en sort. Lorsque l'on ouvre le robinet et qu'il n'y a pas de bouchon au fond du lavabo, l'eau va s'écouler normalement, sans problème.
Par contre, si le bouchon est maintenu en place, l'eau va commencer à s'accumuler jusqu'à ce que le lavabo se mette à déborder, ce qui peut évidemment occasionner toutes sortes de problèmes et de difficultés dont on a discuté il y a quelques minutes.
L'objectif des ateliers KORSA n'est pas de fermer le robinet pour faire en sorte que l'eau arrête de couler, ce qui reviendrait à essayer de vous changer ou changer l'environnement dans lequel on évolue. Malheureusement, il y aura toujours des examens à compléter et des échéanciers à respecter!
L'objectif des ateliers KORSA est de vous proposer des stratégies pour vous aider à tirer sur le bouchon du lavabo lorsque c'est nécessaire afin d'éviter que vous soyez submergés par votre stress, ou tout autre type de difficultés; afin d'éviter que vous ayez de l'eau par-dessus la tête.
Le but des ateliers n'est pas d'éliminer votre stress, mais plutôt de vous aider à l'apprivoiser de manière à ce que vous puissiez vous concentrer sur ce qui compte vraiment pour vous. Comme nous l'avons vu dans le cadre de notre échange il y a quelques instants, nous passons beaucoup de temps à lutter contre notre stress et durant ce temps, nous perdons de vue ce qui est important à nos yeux. Les ateliers visent à vous aider à poser des gestes concrets qui contribuent à enrichir votre vie, et vous permettre de vivre votre stress autrement.

Feuille de route – Atelier 1

- **Objectifs spécifiques des ateliers (5 min)**
  - Explorer les difficultés avec lesquelles nous sommes aux prises en ce moment, y compris celles liées au stress.
  - Porter attention à nos façons de faire, nos automatismes, habitudes et stratégies face à ces difficultés.
  - Explorer le coût et l'impact de nos façons de faire habituelles.
  - Découvrir que nous avons le choix, que nous pouvons faire face à nos difficultés autrement.
  - Explorer ce qui est important pour nous dans la vie.
  - Mettre en place des actions concrètes de manière à vivre en harmonie avec ce qui est important pour nous.
    - *Comment voyez-vous tout ça?*

Logistique des ateliers (15 min)

- 5 ateliers de 2.5 heures qui sont intimement liés
- Soulignez l'importance d'être présent à chacun des ateliers et d'arriver à l'heure
- Environ 15 participants dans le groupe
- Ateliers participatifs qui nécessitent un engagement actif en groupe et à l'extérieur : exercices à la maison incluant méditation
- Parlera de nos expériences, explorera nos difficultés ensemble, familiarisera avec de nouvelles façons de vivre notre stress
- Discussions en grand groupe, travail individuel, méditations guidées et divers exercices expérientiels
- Exercices à la maison (p.ex. grilles d'observation et pratiquer de la méditation)
- Méditation joue rôle centrale; une manière efficace pour aider à mieux vivre le stress et apprendre à se connaître. Nous encourageons à écouter des capsules régulièrement, entre 20-30 minutes par jour.
- Tout matériel sera remis durant l'atelier
- Pas de pauses pendant les ateliers, mais prendre soins de soi (ex : salle de bain/ collation si nécessaire)
- Encourageons à partager vos expériences, nous ne vous forcerons à prendre la parole
- Il existe d'autre services offerts outre que les ateliers Korsa

- **Discussion sur le mode de fonctionnement du groupe (15 min)**
  - Demandez aux étudiants s'ils ont des craintes, des hésitations, des questionnements à l'égard des ateliers.
  - Spécifiez qu'en tout temps, les étudiants qui vivent des difficultés ou qui ressentent le besoin d'échanger avec vous peuvent le faire.
  - Encouragez les étudiants à prendre soin d'eux.
  - Discutez des attentes de tous et chacun à l'égard du mode de fonctionnement du groupe.
  - Thèmes : écoute, respect, ouverture, confidentialité, bienveillance envers soi, prendre soin de soi, l'engagement

- **Visualisation et discussion sur les attentes (10 min)**
  - Inviter les participants à fermer les yeux et jongler avec les deux 2 questions suivantes
    - *Quelles sont vos attentes à l'égard des ateliers?*
    - *Qu'est-ce que vous souhaitez en retirer?*
  - Retour en grand groupe

Feuille de route – Atelier 1

- **Pratique personnelle à la maison (5 min)**
  - Invitez à poursuivre leur réflexion sur leurs attentes et leurs intentions en répondant au questionnaire dans le guide du participant. Remettre un guide à chaque étudiant.

- **Check-out (5 min)**
- **Introduction de l'étude (25 min)** (représentant du GRIPA)

Feuille de route – Atelier 2

- **Accueil**
- **Check-in (10 min)**
- **Réflexion et discussion en dyades (60 min)**

En dyade :

(1) *Quelle est la principale difficulté à laquelle vous faites face **en ce moment**? Quelles sont **les pensées, les émotions, les sensations associées à cette difficulté**? Dit autrement, lorsque vous retrouvez envahis par cette difficulté, comment vous vous sentez, à quoi vous pensez?* Si nécessaire, donnez un ou deux exemples.

En grand groupe : Reposez les mêmes questions et <u>écrire réponse COIN INFÉRIEUR GAUCHE</u>

En dyade :

(2) *Quelles sont les stratégies que vous utilisez pour vous débarrasser de ces pensées, ces émotions ou ces sensations difficiles? S'il était possible de vous voir à l'aide d'une caméra lorsque vous êtes envahis par ces expériences désagréables, qu'est-ce que l'on vous verrait faire?* Si nécessaire, donnez un ou deux exemples.

(3) *Qui et quoi est important pour vous en ce moment dans votre vie ? Ne précipitez pas les réponses, laissez-les émerger spontanément et naturellement. Quelles sont les personnes, les causes, les activités ou les valeurs qui sont importantes pour vous?*

En grand groupe : *Reposez les deux mêmes questions*

Réponse à la question 2 : <u>écrire réponse COIN SUPÉRIEUR GAUCHE</u>

Réponse à la question 3 : <u>écrire réponse COIN INFÉRIEUR DROIT</u>

- **Introduction à la matrice et au désespoir créatif (20 min)**

- Faites apparaitre la matrice en traçant 2 axes : **Horizontal (**s'approcher vs s'éloigner) et **Vertical** (notre monde intérieur/ extérieur).
- Inscrivez le nom de chaque cadran et expliquez la matrice :

Lutte	**Actions engagées**
Souffrance	**Valeurs**

- Expliquez la matrice avec les exemples donnés
- Présentez le désespoir créatif
  - *Qu'est-ce qui se passent avec nos émotions, nos pensées (*INFÉRIEUR GAUCHE*) lorsque nous utilisons ces stratégies (*SUPÉRIEUR GAUCHE*)?*
  - *Ces stratégies fonctionnent-elles à long terme?* **(Tracez un tourbillon entre les cadrans GAUCHE)**
  - Avez-vous parfois l'impression de vous retrouver dans ce cercle vicieux?
- **Tracez un cercle au centre de la matrice** : Observation de nos pensées, émotions; ce qu'on fait pour lutter et les gestes que l'on pose pour faire vivre nos valeurs

- **Exercice de la canneberge (20 min)**

But : Observer notre mode de fonctionnement n'est pas simple/ facile; Manière d'être plus présent et attentif/conscient

Distribuez 2 canneberges --- Demandez-leur de :

-manger l'une de ces petites choses rouges

-observer, sans lui toucher. (comme 1e fois qu'ils le voyaient) *Qu'est-ce qu'ils observent?*

-toucher l'objet délicatement et noter ce qu'ils observent…. *Qu'est-ce qu'ils notent?*

Feuille de route – Atelier 2

-sentir … *Que remarquent-ils?*
-écouter … *L'objet émet-il un son lorsqu'on le roule entre les doigts?*
- déposer dans la bouche ... (résistance ou encore un désir de déposer l'objet dans leur bouche?); *Comment leur corps réagit-il? Est-ce que des pensées ou des émotions se présentent? Qu'est-ce qui se passe en ce moment en eux?*
-mâcher tout doucement l'objet puis l'avaler en étant le plus attentifs possible à leurs expériences.
En grand groupe : *Que remarquons-nous entre les deux façons de manger cet objet?*

- **Balayage corporel (Voir annexe) (25 min)**
  - **En grand groupe :** *Qu'avons-nous remarqué : réactions, façons de gérer les sensations inconfortables?*

- **Pratique personnelle de la semaine (10 min)**
  - Balayage corporel à la maison 5 fois durant la semaine
  - Manger au moins un repas étant pleinement attentif
  - Compléter la grille pour noter les pensées, les émotions, les sensations qui les envahissent lorsqu'ils font face à des difficultés durant la semaine.

- **Check-out (5 min)**

Feuille de route: Atelier 3

- **Check-in (15 min)**
- **Retour sur la semaine (25 min)**
  - **En dyade:** Partager ce qu'ils ont observé, leurs constats sur le balayage corporel, du repas en pleine conscience et de la grille d'observation
  - **En grand groupe :** *Qu'est-ce que vous avez observé dans le cadre de ces pratiques? Avez-vous noté des choses particulières? Des pensées, des émotions, des résistances, des doutes, etc.? Quels sont les constats que vous avez faits? ; Est-ce que vous avez rencontré des obstacles dans votre pratique? Si oui, lesquels? De quelle manière avez-vous travaillé avec ces obstacles?*

- **Le problème avec les pensées (10 min)**
  - *Avez-vous remarqué à quel point les situations difficiles auxquelles nous sommes confrontés déclenchent rapidement des pensées, des émotions, voire des sensations?*
  - **Ressortir :** situations difficiles déclenchent automatiquement, sans notre volonté, toute une myriade de pensées et d'émotions et que l'on peut facilement se laisser emporter dans le tourbillon de nos expériences internes.

Demandez-leur de prendre une feuille et un crayon, puis de compléter spontanément les phrases suivantes.

1. **Tic, tac, …**
2. **Mieux vaut tard que…**
3. **Voir la vie en...**

-Qu'avons-nous observé?

-Soulignez : l'esprit comble les vides automatiquement, fait des liens facilement. Ces expressions ont été apprises sans que l'on s'en rendre compte, les mots ont été liés entre eux, et il est difficile de s'en détacher. Il est difficile de désapprendre ce que l'on a appris. Ces automatismes de sont pas nécessairement problématiques, mais ils ne sont pas complètement inoffensifs.

Demandez cette fois aux étudiants de compléter les trois phrases suivantes :

1. **Je n'y arrive pas, je ne suis pas assez….**
2. **Je suis tellement découragé, que je pense que je vais juste….**
3. **Ce que j'aime le moins de moi est….**

Notez ce que les étudiants observent.

-Soulignez : la rapidité, la familiarité, la facilité avec laquelle les réponses émergent, les mots qui se sont présentés spontanément font partie de notre histoire personnelle, qu'ils émergent automatiquement et que, pour cette raison, il est plus facile de s'y attacher et de les croire, —ce qui peut ensuite entraîner des émotions, des sensations difficiles, et des stratégies de lutte comme celles identifiées la semaine passée.

- **Déconstruire l'agenda du contrôle (5 min)**

-Nommez l'universalité du mode de résolution de problème (comme la grille)

But de l'exercice : illustrer comment ces stratégies sont ancrées en nous et notre fonctionnement face à des difficultés

-Posez les questions suivantes et laissez les étudiants offrir spontanément des solutions :

- *Que faites-vous lorsqu'il y a une panne de métro d'une durée indéterminée?*
- *Que faites-vous lorsque vous oubliez vos clés dans la voiture?*
- *Que faites-vous si vous avez une crevaison?*

Feuille de route: Atelier 3

○ *Que faites-vous si la toilette est bloquée?* -Nommez la rapidité et l'abondance de solutions qui nous viennent en tête -Soulignez : humain a évolué et s'est adapté en trouvant constamment des solutions aux problèmes auxquels nous avons fait face. Réparer une crevaison n'est pas aussi simple que d'éliminer notre stress, anxiété ou timidité. *Métaphore de la poussière*

Retour sur la matrice (15 min)

- Présentez les différentes composantes de la matrice avec les exemples donnés
- Illustrez comment nous sommes constamment en mouvement sur l'axe horizontal (valeurs)
- Nommez que le tourbillon est notre façon de fonctionner « normale ou habituelle »
  - *Qu'est-ce qui se passe lorsque nous sommes pris dans ce tourbillon?*
  - *Quel est le prix à payer?*
  - *Est-ce que l'on en retire de la satisfaction?*
- **Ressortir :** Lorsque pris dans le tourbillon, nous nous éloignons de nos valeurs

- **Visualisation guidée sur les valeurs &exercice d'écriture libre (30 min)**
  1. réflexion guidée sur les valeurs – voir annexe
  2. exercice d'écriture libre et spontanée (10 minutes)
     – invitez-les à la fin de relire et identifier les thèmes communs aux diverses sphères de vie.

- **Déjà 80 (15 min)**
  - **Exercice individuel :** réponse spontanée avec les thèmes émergés lors des exercices précédents

- **Discussion sur l'importance des valeurs (20 min)**
  - **En dyade :** *Est-ce que des thèmes se sont imposés à eux, est-ce qu'ils ont noté des pensées, des émotions, des sensations particulières?*
  - **En grand groupe :** inscrivez dans la matrice (**CADRAN INFÉRIEUR DROIT**) des exemples de thèmes ou de valeurs dont font part les étudiants (Prenez le temps de définir les caractéristiques des valeurs et des actions engagées)
  - **Ressortir :** ils ont déjà une idée de ce qui est important pour eux et qu'ils posent déjà des actions engagées.

Valeurs : -être vs. avoir, obtenir -comme des points cardinaux d'une boussole (direction et non la destination/finalité) -se fier à notre ressenti plutôt que notre intellect -l'important est de développer l'habitude de consulter notre boussole, d'observer nos comportements et de se demander si ceux-ci nous éloignent ou nous approchent de nos valeurs **Actions engagées :** -c'est à travers nos actions que nous faisons vivre nos valeurs. -contribue à enrichir notre vie, quand elle nous approche de nos valeurs. -peuvent être toutes petites, doivent être réalistes et prendre considération notre contexte et nos capacités

Feuille de route: Atelier 3

- **Remue-méninges sur les actions engagées (10 min)**
  - Invitez-les à choisir un élément qui est important pour eux en ce moment et qu'ils ont envie de travailler (référé à l'exercice d'écriture libre)
  - **En dyade :** identifiez des actions engagées qui pourraient vous aider à avancer vers vos valeurs.
  - **En grand groupe :** partager la valeur qu'ils ont choisie et les actions qu'ils souhaitent entreprendre pour faire vivre celle-ci (Écrivez des exemples d'actions engagées dans le **COIN SUPÉRIEUR DROIT DE LA MATRICE)**.
-
- **Pratique personnelle à la maison (5 min)**

  (1) Complétez l'exercice les *8 étapes pour faire vivre une valeur et* la grille d'observation des actions engagées

  (2) Posez des actions engagées et utilisez un aide-mémoire et soyez attentif aux obstacles qui surgissent lorsque l'on essaie de faire vivre notre valeur (*p.ex., je vais faire autre chose, je n'ai pas le temps*).
- Poursuivez votre pratique de méditation à la maison (balayage corporel ou d'une autre capsule) environ 15 minutes, 5 fois par semaine.

- **Check-out (5 min)**

Feuille de route – Atelier 4

- **Check-in (20 min)**
- **Retour sur la semaine (30 min)**
  - **En grand groupe :** Les observations à l'égard de la méditation, l'exercice *les 8 étapes pour faire vivre une valeur* et la grille d'observation des actions engagées.

Méditation :
-nous permet d'aiguiser notre observation (cercle au centre de la matrice) et développer notre attention.
-nous aide à mieux voir à quel endroit on se trouve sur la matrice (servez-vous de la matrice au tableau). Est-ce que nous sommes piégés dans le tourbillon, pris dans nos pensées ou nos émotions négatives ou sommes-nous en train de poser des gestes concrets pour faire vivre nos valeurs? Plus on s'exerce à s'observer, plus il devient facile de faire des choix (s'éloigner ou s'approche de nos valeurs).
-n'a pas pour but de relaxer ou de se détendre, mais plutôt d'entraîner notre esprit de manière à être moins réactif et impulsif; moins fonctionner sur le pilote automatique.

  - Grille d'observation : *avez-vous parvenu à mettre de l'avant des actions concrètes durant la semaine. Si oui lesquelles?*
  - *Qu'avez-vous observé pendant que vous faisiez ces actions (pensées, émotions, sensations)?*
  - *Avez-vous rencontré des résistances?*
  - *Comment avez-vous réagi à ces obstacles?*
  - Avez-vous *lutté? Si oui, quelle forme votre lutte a-t-elle prise.*

- **Les deux feuilles de papier (5 min)**
  - VALEURS vs PENSÉES, ÉMOTIONS, SENSATIONS INCONFORTABLES
  - Danger est lorsque nos comportements sont sous le contrôle par nos pensées envahissantes = on veut produire le mouvement inverse

- **L'exercice du stylo (10 min)**

But : illustrer le mouvement des 2 feuilles et d'explorer des façons différentes de faire face à nos obstacles

-Inviter les participants à réfléchir à une situation où ils sont très attachés aux résultats à atteindre (pause)
-Nommer que c'est souvent ici où qu'on se retrouve dans le tourbillon
Exercice :
- Pour bien comprendre la forme que prend cette lutte, mais aussi ses conséquences, prenons un stylo dans notre main et serrons-le avec la même force que nous mettons à atteindre nos résultats...
-Toute l'énergie que nous investissons à vouloir avoir une bonne note, régler un conflit, nous débarrasser de quelque chose
-Sur une échelle de 1 à 10, à quel point serrez-vous votre stylo en ce moment?
-Quelles sont les pensées, les émotions, les sensations qui vous habitent?
-Invitez les étudiants à réduire leur prise de moitié et notez ce qu'ils observent.
-Invitez-les à alléger maintenant leur prise de manière à soutenir à peine leur stylo et notez ce qu'ils observent.
Retour en grand groupe : *Vous croyez que ce serait possible de tenir nos objectifs de la même manière, avec délicatesse et gentillesse? Quelle différence ça ferait?*

- **La métaphore du GPS (5 min)**

Imaginez que vous roulez en voiture vers une destination qui vous est chère lorsque soudainement, la voix de votre GPS vous dit de tourner à droite. Même si dans votre cœur, vos tripes et vos os vous êtes persuadés qu'il vous faut poursuivre sur le même chemin, qu'il vaut mieux de pas tourner, vous céder puis prenez à droite ….. Après tout, si c'est le GPS qui le

Feuille de route – Atelier 4

dit…

Notre esprit peut être comparé à la voix d'un GPS. Il nous balance souvent toutes sortes de pensées que nous interprétons la plupart du temps comme la vérité ou comme des ordres logiques auxquelles il faut obéir. Par exemple, j'ai cette pensée que je suis trop timide, alors j'évite de me retrouver dans des situations dans lesquelles il y a plusieurs personnes.

Cette métaphore illustre que notre esprit, comme le GPS, ne s'avère pas toujours un bon guide et que nous pouvons très bien poser des gestes et choisir de ne pas nous laisser diriger par nos pensées.

Est-ce que l'on peut poursuivre notre route même si le GPS nous dit de tourner à droite?

Est-ce que l'on peut aller à une fête d'ami même si notre esprit nous dit que nous sommes trop timides?

Bien souvent, il vaut mieux s'en remettre à ce qui est important pour nous pour guider nos actions plutôt que sur les pensées qui nous habitent.

Nos pensées sont au final, que des pensées…

Demandez aux étudiants de partager sur leur réaction à cette métaphore. Invitez-les à partager des exemples personnels de pensées récurrentes qui ont beaucoup d'emprise sur leurs comportements. Pour stimuler la discussion, donner un ou deux exemples personnels.

- **L'exercice des mains (10 min)**

Invitez les étudiants :
- à identifier une pensée désagréable qui fait souvent surface
- à placer leurs mains sous forme de coupole (comme à l'église!), et d'y déposer cette pensée.
- À approcher les mains vers leur *visage jusqu'à ce qu'elles touchent presque le bout de leur nez.*
- À prendre conscience qu'*il n'y a presque pas de distance entre eux et leurs pensées. (perdu contact avec ce qui leur entoure, avec les gens assis à côté d'eux)*
- À faire *tout doucement le mouvement inverse – à déposer leurs mains sur leurs cuisses (prendre un recul)*
- À prendre *conscience que leurs pensées n'ont pas disparu par magie.. mais au creux de nos mains*

En grand groupe : *Quels sont les pièges de perdre contact avec nos sens, notre univers se rétrécit, nos comportements deviennent rigides, on perd de vue nos valeurs?*

- **Le tiroir du classeur (25 min)**

Exercice : voir annexe
En dyade : *Qu'avez-vous observé durant cet exercice?*
En grand groupe :
- *Est-ce que vous avez noté des différences entre la manière dont vous avez fait face à votre situation difficile et celle que nous avons expérimentée ensemble?*
- *Si oui, lesquelles?* (Ramenez toujours à l'expérience des étudiants)
- *Qu'est-ce que ça change que de faire de la place à la souffrance, l'accueillir plutôt que la contrôler ou la chasser?*

- **La ligne du courage (5 min)**
  - Nous avons la capacité de prendre une distance à l'égard de nos pensées (défusion).

Feuille de route – Atelier 4

- Nous pouvons accueillir, faire de la place aux pensées, aux émotions qui nous habitent (l'acceptation).
- Nous n'avons pas nécessairement à amorcer un combat avec elles…
- En cultivant ces attitudes, il devient plus facile de se libérer de la lutte et de maintenir le cap sur nos valeurs.
- Ces attitudes ne sont pas faciles à mettre en application, elles nécessitent du **courage.** (Tracez une ligne pointillée dans la matrice partant de la souffrance aux actions engagées.
- Nous avançons même si l'on vit de l'inconfort.

- **Faire autrement (20 min)**
  - **En dyade :** Invitez-les (1) à échanger sur les obstacles rencontrés durant la semaine lorsqu'est venu le temps de mettre de l'avant des actions engagées et (2) à réfléchir à la manière dont ils pourraient faire face à leurs obstacles avec un peu plus de recul, d'ouverture, et de bienveillance. Qu'est-ce que ces attitudes seraient susceptibles de changer? Invitez-les (3) à explorer et écrire d'autres actions engagées qui pourraient leur permettre d'avancer vers leurs valeurs.
  - **Retour en grand groupe :** récolter les réponses si le temps vous le permet

- **Pratique personnelle à la maison (10 min)**
  (1) Poursuivez le travail amorcé de l'exercice *les 8 étapes pour faire vivre une valeur* et de la grille d'observation des actions engagées (même valeur ou différentes) et observez leurs pensées, émotions et sensations lorsqu'ils sont engagés dans des actions engagées et d'essayer à mettre en pratique la distanciation et l'ouverture, comme nous l'avons fait durant l'atelier.
  (2) Poursuivez la pratique de méditation (entre 20 et 30 minutes, 5 fois par semaine).
- **Check-out (10 min)**

Feuille de route – Atelier 5

- **Check-in (20 min)**
- **Retour sur la semaine (30 min)**
  - **En dyade :** Discuter 1) de leur pratique de méditation, 2) des actions engagées qu'ils sont parvenus à mettre de l'avant et des obstacles qu'ils ont rencontrés durant la semaine et 3) la manière dont ils ont fait face à ceux-ci.
  - **En grand groupe :**
    - *Vous avez noté des distinctions entre cette forme de méditation et le balayage corporel? Si oui, lesquelles?*
    - *Qu'est-ce que votre pratique de méditation vous a-t-elle permis d'observer?*
    - *Vous avez fait face à des difficultés dans le cadre de votre pratique? Lesquelles?*
    - *Certains veulent partager la valeur sur laquelle ils ont travaillé durant la semaine et les gestes qu'ils ont posés pour la faire vivre?*
    - *Qu'est-ce que vous avez noté lorsque vous posiez ces gestes? (comment vous vous êtes sentis, qu'est-ce que vous vous êtes dits?*
    - *Mettre de l'avant des actions engagées prend beaucoup de courage comme nous l'avons vu la semaine dernière. Est-ce que vous avez fait face à des obstacles? Lesquels?*
    - *Comment êtes-vous parvenus à y faire face?*

- **Ma matrice (45 min)**
  - Demandez à un étudiant volontaire d'expliquer sa compréhension de la matrice. Demandez aux membres du groupe s'ils souhaitent ajouter des informations. Prenez le temps de discuter des éléments qui auront été omis.
  - Laissez par la suite le temps aux étudiants de remplir individuellement leur matrice en fonction d'où ils en sont en ce moment dans leur vie.
  - **En dyade :** Invitez-les à présenter et discuter chacun de leur matrice et de son contenu
  - **Retour en grand groupe :**
    - *Qu'est-ce que vous avez observé en remplissant votre matrice?*
    - *Qu'est-ce que vous avez observé en partageant votre matrice?*
    - *Vous croyez que la matrice vous sera utile à l'avenir? Comment?*
    - **Préciser :** la matrice peut être servie comme guide

- **La suite (30 min)**
  - **Exercice individuel :** Complétez l'exercice intitulé LA SUITE et réfléchissez à la manière dont ils envisagent donner suite aux ateliers KORSA. ..
  - **En dyade :** Invitez-les à partager sur la manière dont ils entendent donner suite aux ateliers. (environ 10 minutes)
  - **Exercice individuel :** (1) Remettez à chaque étudiant la carte mémoire KORSA et (2) Invitez-les à prendre quelques instants pour y inscrire un mot (ou une courte phrase) qui représente ce qu'ils souhaitent pour l'avenir, ou ce qui est important pour eux.
  - Retour en grand groupe : *Comment entrevoyez-vous la suite?* (peuvent partager ce qu'ils ont écrit sur la carte mémoire)

- **Visualisation du départ et dernier partage (20 min)**
  - Fermons nos yeux quelques instants. Prenons conscience que nous sommes assis ici ensemble pour la dernière fois
  - Imaginons que tous à tour de rôle, on se lève, on se prépare à partir….

Feuille de route – Atelier 5

- On prépare nos sacs, on met nos manteaux, on se dit tous au revoir…..
- En sortant, on se met à marcher dans le corridor, descend les escaliers, et puis partons tous de notre côté, seuls...
- Prenons un moment pour se permettre de vivre cette transition…
- Invitez les étudiants à ouvrir leurs yeux.

Retour en grand groupe : *Les ateliers KORSA vont bientôt se terminer. C'est notre dernière occasion de partager. Peut-être que certains ou certaines aimeraient ajouter quelque chose avant que l'on se quitte…..Peut-être que tout a été dit, ce qui est tout à fait correct aussi….*
Exprimez vos remarques finales sur votre expérience au sein de ce groupe.

- **Check-out (5 min)**

ANNEX E

3-MINUTE BREATHING SPACE SCRIPT

Recommandations pour guider les check-in et les check-out

Nous avons pris l'habitude de débuter et de clore les ateliers toujours de la même manière, c'est-à-dire à l'aide d'un check-in et d'un check-out, afin de faciliter les transitions, mais aussi d'aider les étudiants à cultiver leur présence attentive et leur soi observateur.

Pour ce qui est des check-in, nous nous inspirons, entre autres, de l'exercice *3 minutes breathing space* élaboré par Segal, Williams et Teasdale (2002). Dans les lignes qui suivent, vous trouverez un script élaboré par l'équipe MBCT-HUG du Dr. Pierre Philippot en Belgique. Prenez le temps de lire à plusieurs reprises ce script, vous l'approprier pour idéalement l'utiliser avec votre propre style, vos propres mots. Certains check-in se font aussi à l'aide de la méditation sur le souffle ou celle du balayage corporel. Vous trouverez des recommandations pour guider ces méditations à l'annexe suivante.

Pour ce qui est des check-out, vous pouvez utiliser l'exercice du *3 minutes breathing space,* faire une très courte méditation sur le souffle ou encore prendre simplement quelques minutes de silence.

Étape préalable : La Posture

La première chose que nous faisons dans cet exercice est de prendre une posture détendue, digne et droite, mais pas raide, qui laisse notre corps en éveil, exprimant le fait d'être présent à l'expérience qui se déploie.

Étape 1 : Conscience

Maintenant, en fermant nos yeux, et si c'est confortable pour nous, la première étape consiste à être conscient, vraiment conscient de ce qui se passe en nous maintenant. Devenons conscients de ce qui passe dans notre esprit; quelles pensées nous traversent? Ici encore, du mieux que nous pouvons, observons seulement les pensées en tant qu'événements mentaux. En notant les pensées; notons également les sentiments qui sont actuellement présents dans notre esprit, en particulier ceux qui sont désagréables ou qui engendrent du malaise. Ainsi, plutôt que de les éloigner ou de les maintenir dehors, essayons de les identifier, peut-être en nous disant; « Ah, vous êtes là, c'est comme ça maintenant ». Et de même avec les sensations corporelles. Y a-t-il des sensations de tension ou d'oppression, ou quoi que ce soit d'autre? Et de nouveau, prenons conscience d'elles, en les notant.

Étape 2 : Focalisation

Ainsi nous avons une bonne idée de ce qui se passe maintenant. Nous nous sommes dégagés du pilote automatique. La deuxième étape consiste à rassembler notre conscience en se concentrant sur un objet simple : les mouvements respiratoires. L'attention se focalise vers le bas, vers les mouvements de l'abdomen (ou de la poitrine, ou de la sensation de l'air qui rentre et sort par les narines), vers l'inspiration et l'expiration pendant environ une minute, en

focalisant sur le mouvement de l'abdomen moment après moment, respiration après respiration, du mieux que nous pouvons. De sorte que nous identifions les moments d'entrée de l'air, et les moments de sortie de l'air. En fixant notre attention sur ces mouvements présents en nous, servons-nous de la respiration comme un point d'ancrage du moment présent.

Étape 3 : Élargissement

Et maintenant comme troisième étape, après nous être quelque peu concentrés sur nous-mêmes, nous permettons à notre conscience de s'étendre. De la même manière que nous sommes attentifs à notre respiration, nous incluons également la perception du corps dans son ensemble. Ainsi nous obtenons cette conscience plus étendue. Un sentiment du corps comme un tout, y compris la moindre tension ou sensation liée au maintien des épaules, du cou, du dos, ou du visage pendant la respiration, comme si notre corps entier respirait. En maintenant toutes ces sensations dans une conscience plus étendue.

Quand nous sommes prêts, permettons à nos yeux de s'ouvrir.

ANNEX F

RESEARCH DESCRIPTION SCRIPT

- **Introduction à l'étude**
  - Cette recherche est **menée** par des chercheurs de l'UQAM et de l'UQAC et elle est **financée** par le CRSH;
  - Le Comité institutionnel **d'éthique** de la recherche avec des êtres humains de l'UQAM a approuvé le projet de recherche sur le plan de l'éthique auquel vous allez participer;
  - Son **but** est d'évaluer l'efficacité des ateliers KORSA offerts dans les cégeps et les universités;
- **Ce que la participation implique (3 choses)**
  - Si vous acceptez de prendre part à cette recherche, vous devrez **prendre part** aux ateliers KORSA,
  - Vous devrez aussi **télécharger** sur votre téléphone intelligent l'application MetricWire;
  - Ensuite, il faut **répondre** aux questionnaires qui vous seront envoyés à travers cette application (qu'on discutera plus tard)
- **La confidentialité**
  - Les informations que vous divulguerez dans le cadre de cette recherche demeureront **strictement confidentielles** et **seuls les chercheurs** de cette étude auront **accès** à ces renseignements. Ces données ne seront utilisées pour aucune autre fin que pour cette étude et seront **détruites** après une période de cinq ans;
  - De manière à pouvoir **retracer** vos informations, il vous sera demandé de créer un compte et d'inscrire votre adresse électronique dans l'application MetricWire. Une fois dans la base de données, votre adresse électronique sera **convertie** en code alphanumérique permettant d'assurer l'anonymat de vos informations;
- **La participation libre**
  - Votre participation à cette étude est **entièrement volontaire**. Cela signifie que vous acceptez d'y prendre part sans aucune contrainte ou pression extérieure et que, par ailleurs, vous êtes libre de mettre fin à votre participation en tout temps au cours de cette étude **sans préjudice** de la part des chercheurs ou de votre établissement scolaire.
- **Introduction à l'application MetricWire**
  - Ce sera à travers cette application gratuite, sur vos téléphones intelligents (iOS ou Android), que vous allez pouvoir **répondre aux questionnaires**. Elle ne peut être utilisée sur une tablette ou un ordinateur
  - MetricWire fonctionne **hors ligne** ou sur le 3G ou wifi
  - Ceux et celles qui accepteront de participer à l'étude recevront au cours des **24-48 prochaines heures** un courriel les invitant à télécharger l'application MetricWire et de se joindre à l'étude. Attention, ce courriel peut se retrouver dans votre **boîte de courrier indésirable.**
- **Réglages de l'application (quelques mots sur comment faire le set-up)**
  - Une fois l'application téléchargée, vous devrez **créer un compte** à partir de la **même adresse** électronique à partir de laquelle vous avez reçu un courriel pour participer à l'étude. Vous devrez également vous créer un **mot de passe**;
  - Allez dans les **réglages** de votre téléphone et assurez-vous que toutes les **notifications** sont **activées** (sons, pastilles sur l'icône de l'application, affichage sur l'écran verrouillé, push).

- Ensuite, **joignez-vous** à l'étude : allez dans le menu déroulant (coin supérieur gauche), choisissez BROWSE STUDIES, et sélectionnez l'étude KORSA de votre établissement (p.ex., KORSA_UQAM_2016-17).
- L'APPLICATION **DOIT DEMEURER OUVERTE** DURANT TOUTE LA DURÉE DE L'ÉTUDE. IL NE FAUT PAS LA FERMER MANUELLEMENT. NOUS VOUS RECOMMANDONS DE LA METTRE SUR LA **PREMIÈRE FENÊTRE** DU TÉLÉPHONE POUR QU'ELLE SOIT BIEN VISIBLE.

- **Les questionnaires**
  - Lorsque vous recevrez un nouveau questionnaire, vous serez avisés par une **notification** sonore et visuelle. Si vous ne répondez pas immédiatement au questionnaire, un rappel vous sera envoyé **30 minutes** après. La notification disparaîtra après **2 heures**.
  - Vous recevrez **entre 4 et 7 notifications par semaine, à des moments aléatoires entre 18h et 22h**. Chaque notification est un rappel qu'un court questionnaire doit être rempli. **Le questionnaire prend moins d'une minute à remplir.**
  - Essayez de répondre au questionnaire dès que vous recevez une notification. Si ce n'est pas possible, aucun problème! **3x par semaine minimum**.
  - Les **questions** qui vous seront posées portent essentiellement sur la manière dont s'est déroulée votre journée (votre **humeur** et la **relation** avec votre expérience, p.ex. aujourd'hui à quelle fréquence je me suis senti triste; aujourd'hui, j'ai pris le temps de faire quelque chose en lien avec mes valeurs)
  - Soyez **spontanée** dans vos réponses
  - Ces questionnaires représentent aussi une **opportunité** pour se connaître mieux.
  - La **première semaine** de collecte de données est **primordiale** pour la recherche.
- **Appui de l'équipe de recherche**
  - Les membres de l'équipe de recherche feront des suivis avec ceux et celles qui éprouvent des difficultés à installer l'application.
  - Si vous avez des difficultés techniques avec l'application, veuillez contacter projetkorsa@gmail.com
  - Vous pouvez contacter le **responsable** de cette étude (le professeur Simon Grégoire de l'UQAM) au : (514) 987- 3000 # 5028 (gregoire.simon@uqam.ca) pour des questions additionnelles sur le projet ou sur vos droits en tant que participant
- **Tirage**
  - Cette étude nécessite un **réel engagement** de votre part. Pour fins de **compensations**, l'équipe de recherche fera **tirer une tablette iPad mini 4** parmi les étudiants qui auront rempli **75% des questionnaires** (au moins 30 questionnaires).

ANNEX G

CONSENT FORM

UQÀM

FORMULAIRE DE PARTICIPATION ET DE CONSENTEMENT

Titre de l'étude : Implantation d'un système de formation pyramidal destiné à évaluer un programme de promotion du bien-être et de la réussite scolaire en milieu collégial et universitaire.

Chercheur principal: Simon Grégoire, psychologue et professeur au département d'éducation et pédagogie de l'UQAM.

Co-chercheurs : Thérèse Bouffard, professeure titulaire au département de psychologie de l'UQAM, Lise Lachance, professeure titulaire au département d'éducation et pédagogie de l'UQAM, Louis Richer, professeur titulaire au département des sciences de la santé de l'UQAC, Geneviève Taylor, professeure au département d'éducation et pédagogie de l'UQAM.

Objectif : L'objectif de cette étude est d'évaluer l'efficacité des ateliers KORSA qui vous seront offerts aux cours des prochaines semaines en regard de divers indicateurs. Ces ateliers ne sont pas de type thérapeutique. Ils visent simplement à transmettre aux étudiants des habiletés, des outils, des stratégies susceptibles de les aider à mieux gérer diverses situations difficiles dans le cadre de leurs études (l'anxiété liée à la préparation d'un examen, par exemple) et accroître le bien-être et leur qualité de vie.

Déroulement: Si vous acceptez de prendre part à cette étude, vous devrez prendre part aux quatre ateliers KORSA décrits brièvement dans le cadre de cette séance d'information, lesquels sont de 2h30 chacun. Vous devrez aussi télécharger sur votre téléphone intelligent l'application MetricWire. Entre quatre et sept fois par semaine, durant toute la durée de l'étude (6 semaines), une notification (*push*) vous sera envoyée vous invitant à répondre à de courtes questions à l'aide de cette application. Les questions vous seront envoyées à des moments aléatoires, entre 18h00 et 22h00. Chaque notification ne devrait prendre plus d'une minute de votre temps.

Confidentialité: Il est entendu que les informations que vous divulguerez demeureront strictement confidentielles et que seuls les chercheurs de cette étude auront accès à ces renseignements. Ces données ne seront utilisées pour aucune autre fin que pour cette étude et seront détruites après une période de cinq ans. Ajoutons que seules des données globales seront présentées au terme de cette étude. Le responsable s'engage à assurer la confidentialité de vos renseignements. Par contre, de manière à pouvoir retracer vos informations, il vous sera demandé de créer un compte et d'inscrire votre adresse électronique dans l'application MetricWire. Une fois dans la base de données, votre adresse électronique sera convertie en code alphanumérique permettant d'assurer l'anonymat de vos informations. Il est à noter que les données récoltées à l'aide de l'application MetricWire seront conservées sur un serveur aux États-Unis. En vertu du *Patriot Act*, le gouvernement américain pourrait, sans votre autorisation et sans vous en informer, consulter vos données s'il suspecte que vous vous prenez part à des activités terroristes. Pour plus d'informations, nous vous invitons à lire la politique et les conditions d'utilisation de l'application MetricWire à l'adresse suivante: https://metricwire.com/privacy-policy/

Avantages et inconvénients : Nous sommes d'avis que les avantages à prendre part à cette étude sont plus nombreux que les inconvénients. Cette étude pourrait notamment vous aider à mieux faire

face au stress dans le cadre de vos études. Cela dit, s'il vous arrivait de vivre un inconfort durant cette étude ou encore éprouver le désir de discuter avec quelqu'un, sachez que vous pourrez contacter en tout temps le responsable de projet (Simon Grégoire, 514 987- 3000 # 5028). Celui-ci vous dirigera, au besoin, vers une ressource professionnelle appropriée.

Participation volontaire et gratuite: Votre participation à cette étude **est entièrement volontaire**. Cela signifie que vous acceptez d'y prendre part sans aucune contrainte ou pression extérieure et que, par ailleurs, vous êtes libre de mettre fin à votre participation en tout temps au cours de cette étude sans préjudice de la part des chercheurs ou de votre établissement scolaire. Si vous le souhaitez, vous pourrez rencontrer le responsable au terme de l'étude de manière à consulter vos résultats individuels. Prenez note que seuls des résultats globaux seront présentés dans le rapport synthèse de cette étude.

Votre accord à participer implique également que vous acceptez que le responsable de l'étude puisse utiliser les renseignements recueillis dans le cadre de l'étude à des fins de recherche (articles et conférences scientifiques) ou encore à des fins pédagogiques.

Des questions sur ce projet ou sur vos droits? Vous pouvez contacter le responsable de cette étude au : (514) 987- 3000 # 5028 (gregoire.simon@uqam.ca) pour des questions additionnelles sur le projet ou sur vos droits en tant que participant. Le Comité institutionnel d'éthique de la recherche avec des êtres humains de l'UQAM a approuvé le projet de recherche au plan de l'éthique auquel vous allez participer. Pour des informations concernant les responsabilités de l'équipe de recherche sur le plan de l'éthique de la recherche ou pour formuler une plainte ou des commentaires, vous pouvez contacter le Comité institutionnel d'éthique de la recherche de l'UQAM au numéro : (514) 987-3000 # 7753.

Remerciements : Votre collaboration est essentielle à la réalisation de ce projet et l'équipe de recherche tient à vous en remercier.

Je, _____
(Nom et prénom en lettres majuscules)

reconnais avoir lu le présent formulaire et consens volontairement à participer à ce projet de recherche. Je comprends que ma participation à cette recherche est totalement volontaire et que je peux y mettre fin en tout temps, sans pénalité d'aucune forme, ni justification à donner. Il me suffit d'en informer le responsable du projet. En outre, je peux mettre fin à ma participation à l'étude, tout en poursuivant les ateliers KORSA. Je comprends aussi que les données récoltées à l'aide de l'application MetricWire seront conservées sur un serveur aux États-Unis.

Signature du participant : _____
Date : _____

Signature du chercheur responsable ou de son, sa délégué(e) :
_____
Date : _____

ANNEX H

SOCIODEMOGRAPHIC QUESTIONNAIRE

QUESTIONNAIRE SOCIODÉMOGRAPHIQUE

Quel est votre âge ? : _____

Quel est votre sexe ? : F ◯ M ◯

Quel est votre pays de naissance ? _____

À quel cycle d'étude êtes-vous en ce moment ?

◯ Cégep

◯ Premier cycle (par exemple, baccalauréat, certificat, majeure, mineure, etc.)

◯ Deuxième cycle (par exemple, maîtrise, DESS)

◯ Troisième cycle (doctorat)

À quel programme d'étude êtes-vous inscrit(e) ? _____

Dans quel établissement scolaire ? _____

Vous étudiez à temps partiel ou à temps complet ? _____

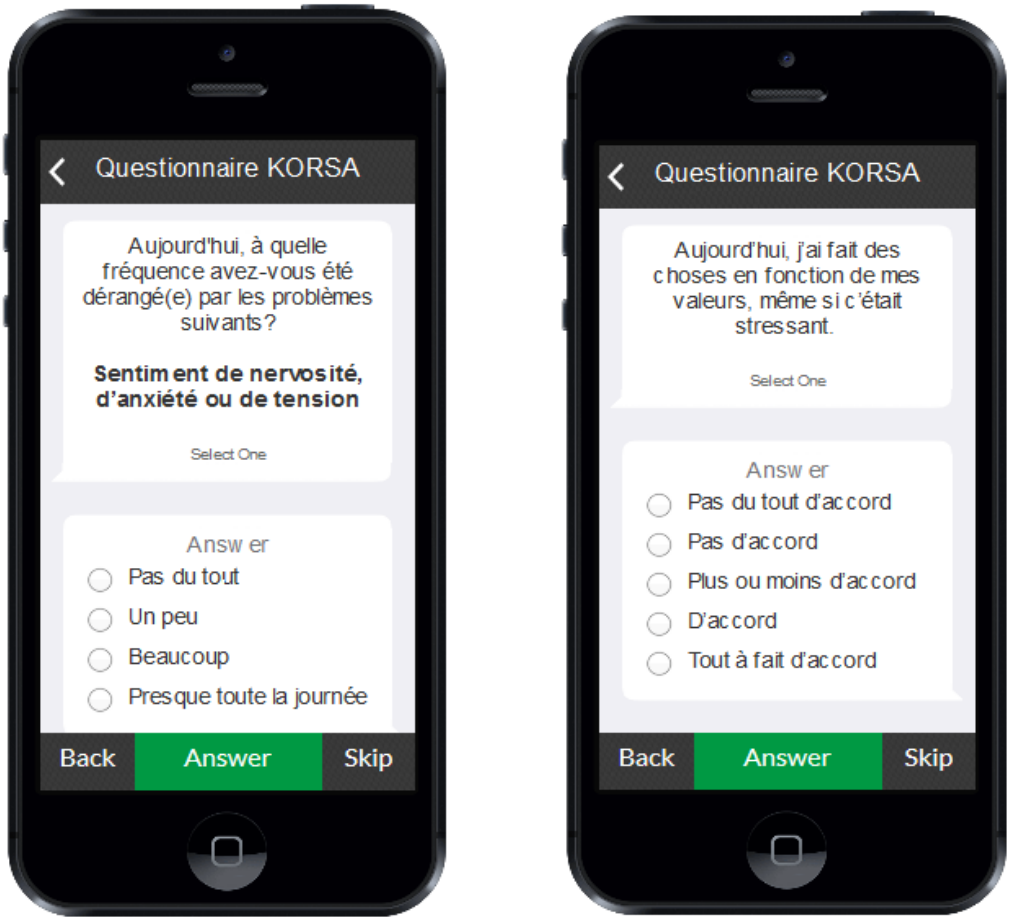
Quelle est votre adresse électronique personnelle (et non celle de votre établissement scolaire)?

_____

(**Notez que cette information est très importante** car elle nous permettra de jumeler ce questionnaire aux questionnaires qui vous seront acheminés à l'aide de l'application MetricWire. Une fois la collecte de données complétée, votre adresse sera convertie en code alphanumérique de manière à préserver votre anonymat lors du traitement des résultats de l'étude. D'aucune manière votre adresse ne sera transmis à une tierce partie).

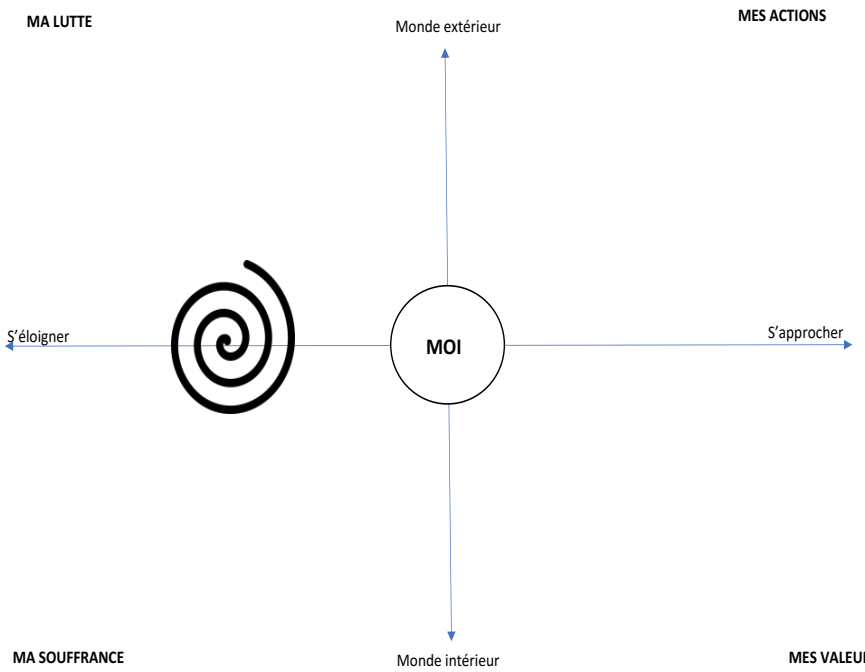
ANNEX I

IMAGES OF METRICWIRE APPLICATION



ANNEX J

THE ACT MATRIX



ANNEX K

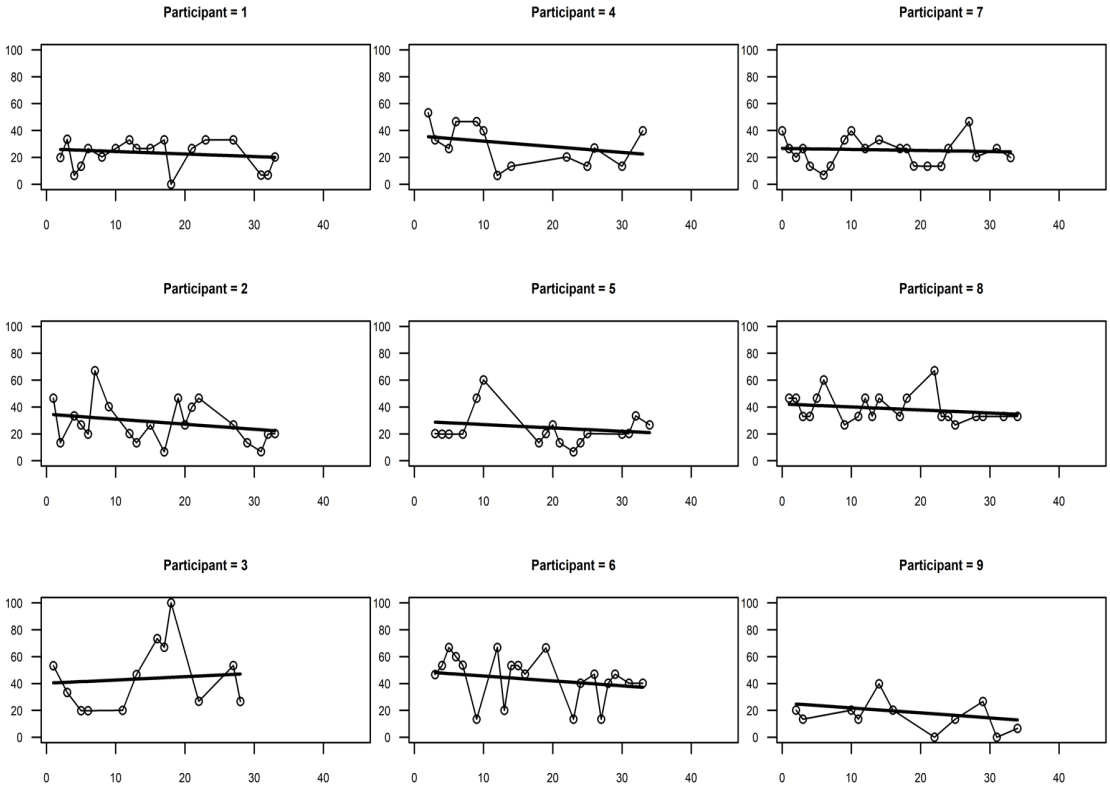
COMPLIANCE—TRACKING RESPONSES OVER TIME

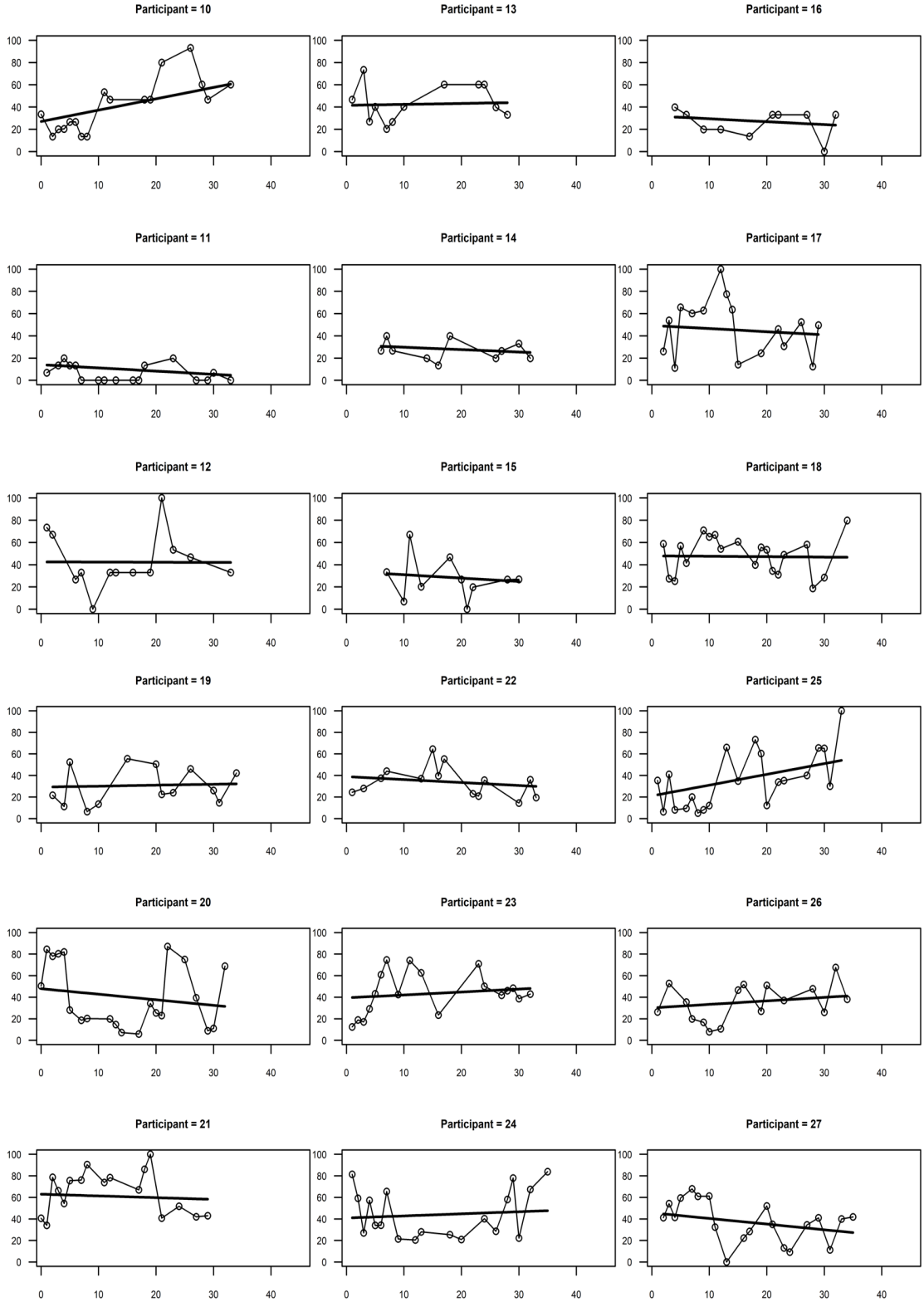
	Number of responses fall ‘17	Number of responses winter ‘18
Week 1	61	84
Week 2	53	73
Week 3	40	65
Week 4	47	57
Week 5	41	65
Week 6	51	---

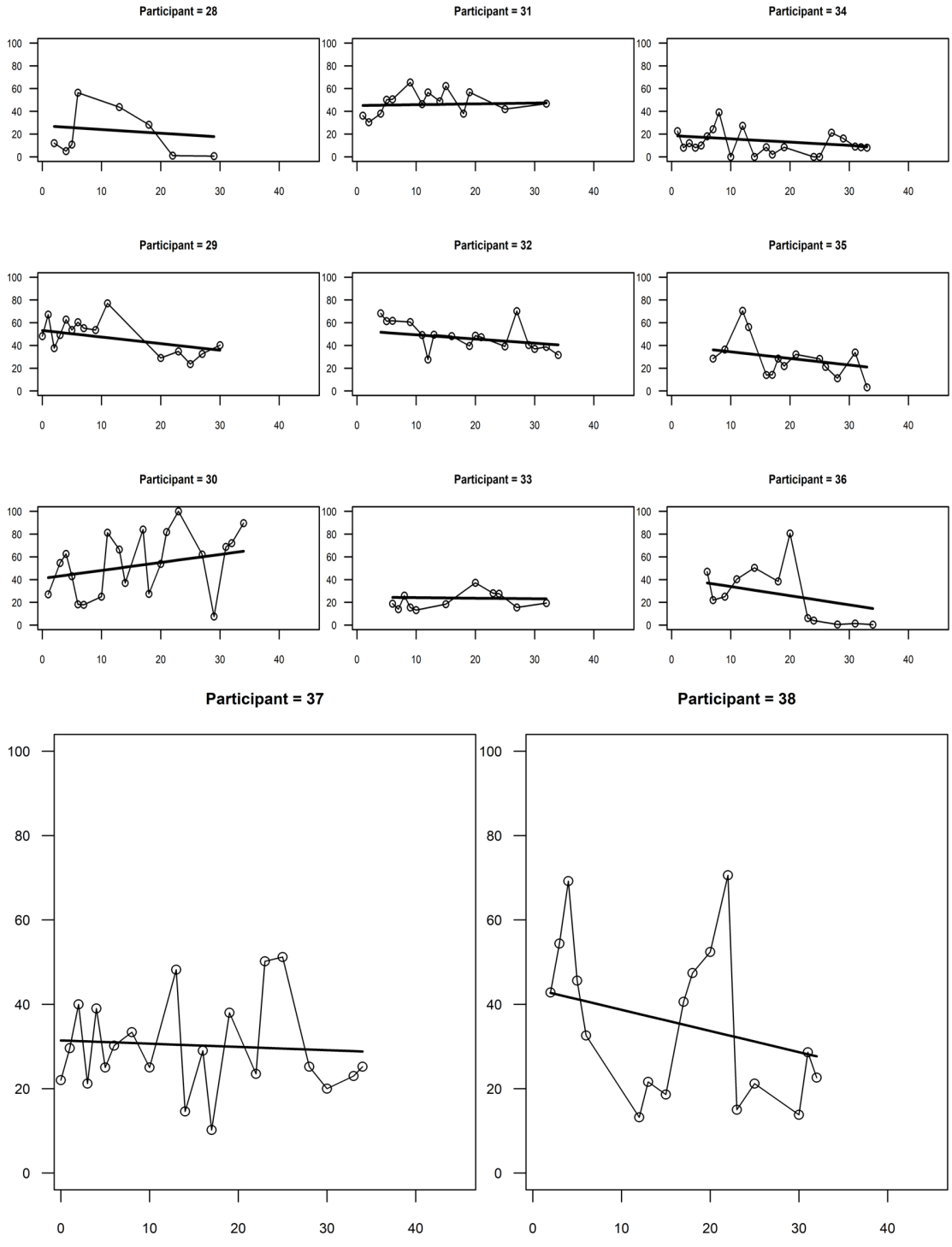
ANNEX L

SCATTER PLOTS

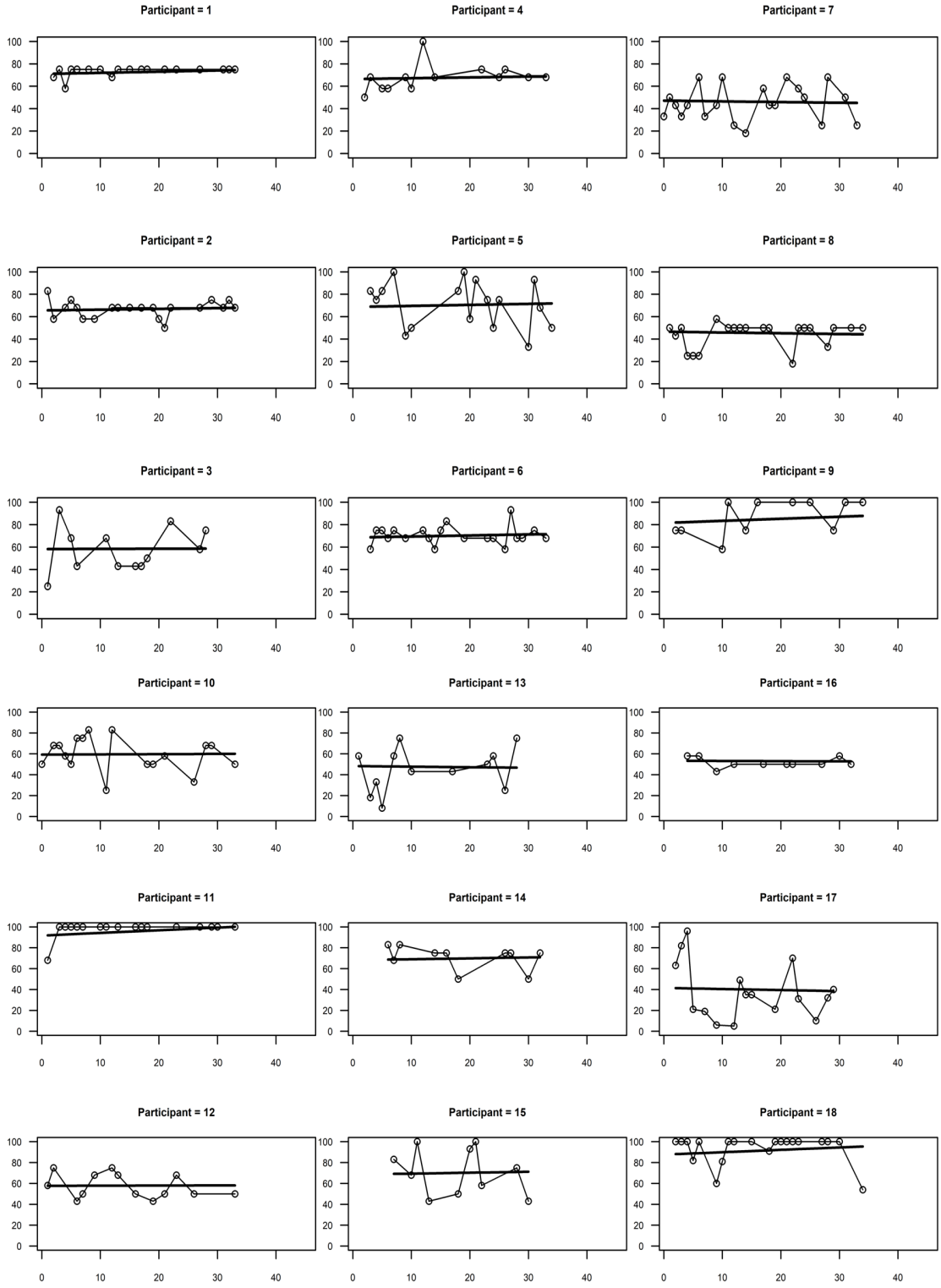
Scatter plots for each participant—number of days (x-axis) and psychological distress (y-axis)

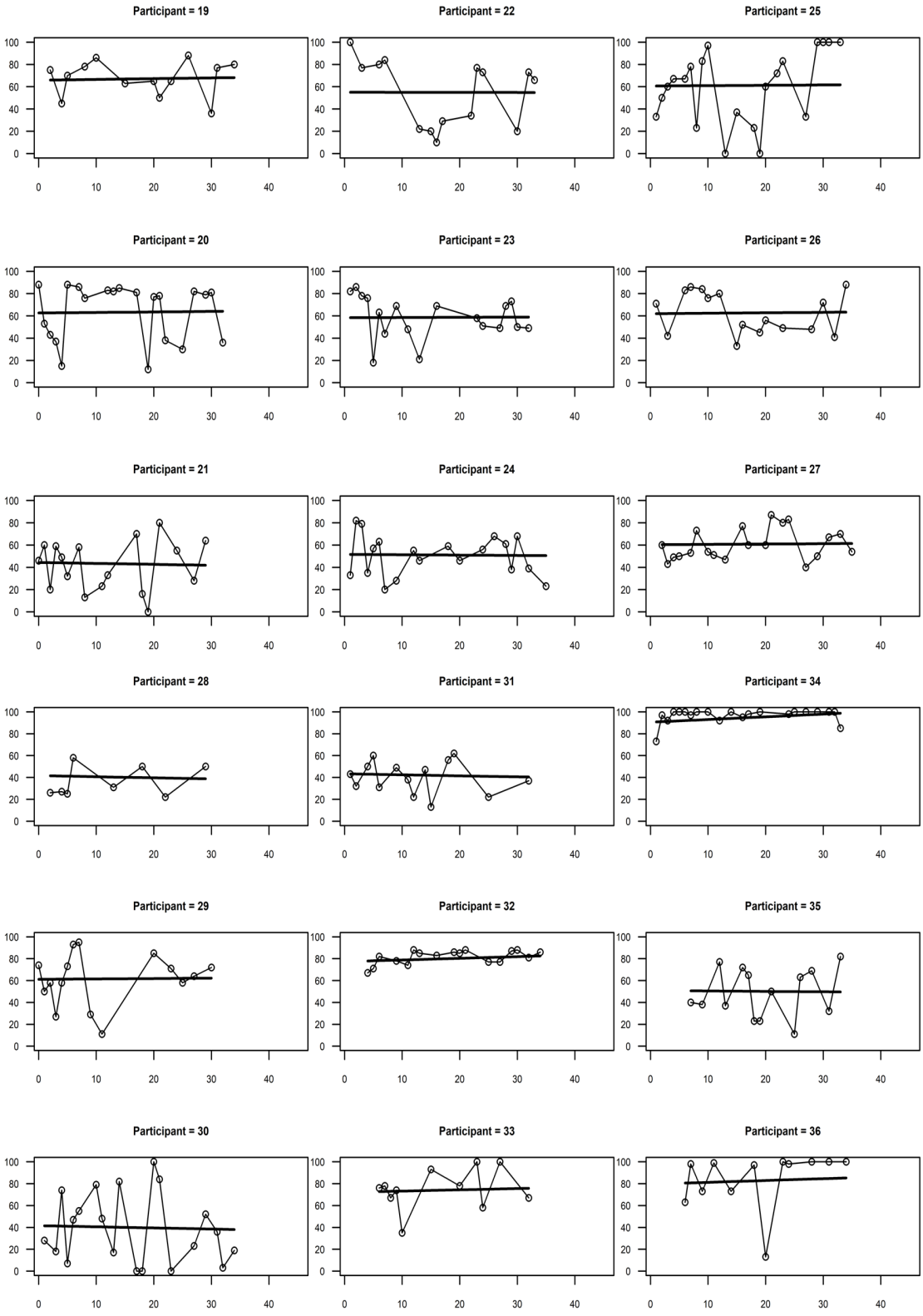


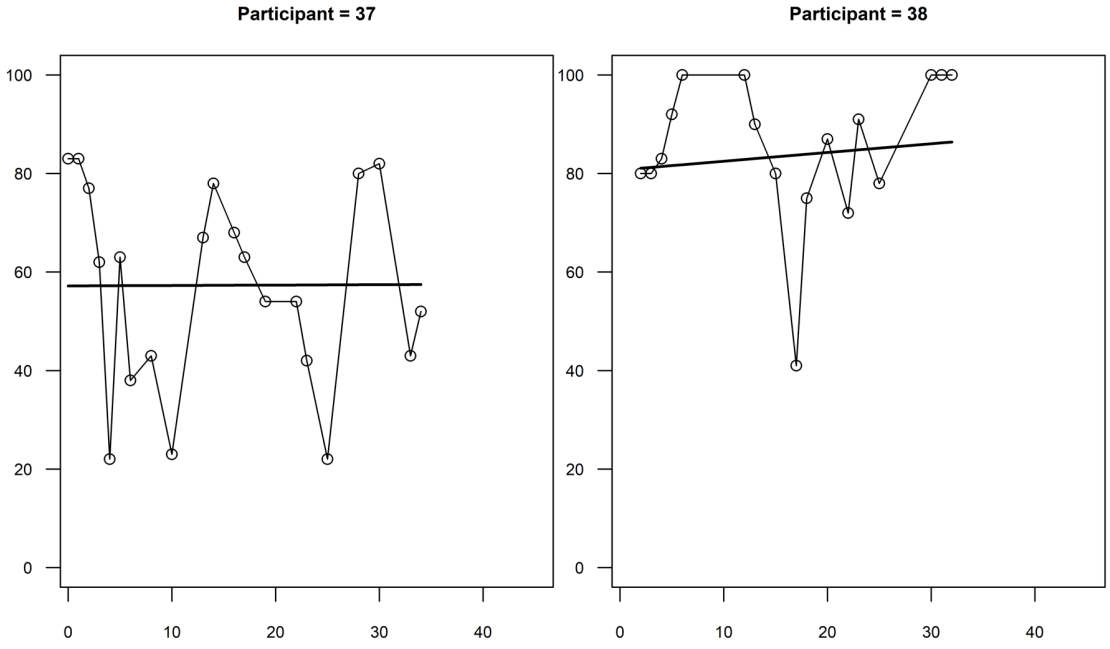

Participant = 10
Participant = 13
Participant = 16
Participant = 11
Participant = 14
Participant = 17
Participant = 12
Participant = 15
Participant = 18
Participant = 19
Participant = 22
Participant = 25
Participant = 20
Participant = 23
Participant = 26
Participant = 21
Participant = 24
Participant = 27


Participant = 28
Participant = 31
Participant = 34
Participant = 29
Participant = 32
Participant = 35
Participant = 30
Participant = 33
Participant = 36
Participant = 37
Participant = 38

Scatter plots for each participant—number of days (x-axis) and valued-living (y-axis)




Participant = 19
Participant = 22
Participant = 25
Participant = 20
Participant = 23
Participant = 26
Participant = 21
Participant = 24
Participant = 27
Participant = 28
Participant = 31
Participant = 34
Participant = 29
Participant = 32
Participant = 35
Participant = 30
Participant = 33
Participant = 36


Participant = 37
Participant = 38
100
80
60
40
20
0
0
10
20
30
40

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