“Your Why for Life”: Understanding the Benefits, Mechanisms, and Maintenance of Purpose in Life

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ABSTRACT

"Your Why for Life": Understanding the Benefits, Mechanisms, and Maintenance of Purpose in Life

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It was been suggested that "if you have your *why* for life, you can get by with almost any *how*" (Nietzsche, 1889/1997, p. 6). Purpose in life is the "why", the viewpoint that your life has personal meaning and direction (Ryff, 2014). Numerous studies have found empirical support for the abundance of benefits that are associated with having a sense of purpose, including its positive effects on mental and physical health (e.g., Boyle et al., 2012), as well as its ties to other adaptive traits, such as gratitude, compassion, and grit (Damon & Malin, 2020). However, gaps in the research literature remain in terms of particular populations that may benefit from purpose, when it might be effective, how it functions, and how it is maintained. The current investigation into purpose in life was done across three studies, with a particular focus on the emerging adulthood period of the lifespan, which some have argued is a time of inherent purposeful exploration and development (Pfund et al., 2020). Using longitudinal multilevel modeling in study 1, the benefits of purpose in life were explored during a transitional period in emerging adulthood, namely the passage from postsecondary studies to employment. It was found that a greater sense of purpose in life helps emerging adults during this often challenging transition, by allowing them to appraise their employment situation more positively. In study 2, with a cross-sectional design, results indicated that a greater sense of purpose was associated with lower rates of distress among university students in the face of a global stressful event (i.e., the COVID-19 pandemic). Notably, a stronger purpose in life allowed emerging adults to engage in adaptive strategies such as positive reframing and appraising a stressful event as less threatening to oneself, thus reporting lower distress. Lastly, in study 3, a longitudinal structural equation model showed that, by engaging in acceptance-based meaning making strategies, university students were able to sustain their sense of purpose during an unprecedented global health crisis. These findings aim to inform future interventions and research into how individuals may develop a purpose in life and experience its benefits.

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This thesis includes two empirical papers, composed of three studies. Authors' contributions are noted below.

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CHAPTER 1:
GENERAL INTRODUCTION

According to Viktor Frankl (1959), psychiatrist and WWII concentration camp survivor, having a sense of purpose may allow us to face hardships and endure suffering, even when experiencing devastating events and harrowing conditions. Purpose in life is the existential perspective that one's life is meaningful, has purpose, and has direction (Ryff, 2014). While much of the discourse and research within the area of psychology has focused on the pathological and risk factors that catalyse its development, it is paramount that we continue to enhance our understanding of resilience and protective factors (Martela et al., 2024). It is a commonly held understanding that pain is an inevitable part of life (Segall & Kristeller, 2023), and as such, finding ways to withstand it may be, at times, a more achievable goal, as preventing pain and avoiding exposure to risks is not always possible (Zimmerman et al., 2013). Indeed, it is important to not focus solely on maladaptive behaviour and negative outcomes, given that the understanding of normative and abnormal development helps inform one another (Yates et al., 2003). It is with this goal in mind that this thesis sought to study the benefits, mechanisms, and maintenance of purpose in life, and how its presence may serve individuals when faced with difficult experiences.

Purpose in Life: Definition

The concept of purpose in life is one that has a long history, despite a relatively recent growth with regard to scientific inquiry (Kashdan et a., 2023). A common struggle is noted in this research area, namely dissonance in its definition. Some authors have viewed it as both a character strength and a long-term goal, specifically one that holds meaning for its owner and that may result in an impact that goes beyond the individual self (Damon & Malin, 2020). This definition has its roots in philosophical and theological discourse on purpose in life, as well as its colloquial use (Damon & Malin, 2020). Another group of researchers have defined it as, "a central, self-organizing life aim that organizes and stimulates goals, manages behaviours, and provides a sense of meaning" (McKnight & Kashdan, 2009, p. 242). Contrary to Damon and Malin's (2020) definition, the argument has been made that purpose in life must not innately result in benefits for one's community, society, or the world, but rather could be focused on the individual (Kashdan et al., 2023). Others, inspired by Ryff's (1989) work on psychological well-being, view purpose in life as the extent to which a person views themselves as having goals that are meaningful and help guide them through life (Pfund et al., 2020). The common elements across these varied definitions include that individuals must view their sense of purpose as personally meaningful to them, and that its presence may facilitate the development or maintain the presence of goal-oriented behaviour. The initial definition provided—purpose in life as the belief that your life is meaningful, has purpose, and has direction (Ryff, 2014)—also incorporates the elements of personal meaning and action-oriented movement, and as such is the definition used throughout this thesis.

Furthermore, it is important to differentiate purpose in life from related concepts. A number of earlier researchers and clinicians (e.g., Frankl, 1959; Ryff, 1989) would, at times, use the terms "purpose" and "meaning" interchangeably. However, these are two different concepts, with some arguing that purpose is a subset of meaning (Damon & Malin, 2020). Meaning in life has been described as an organizing system, which is created by integrating experiences and beliefs about the self, other people, and the world (Kashdan et al., 2023), as well as one's goals and sense of purpose in life (Park & Folkman, 1997). Meaning allows individuals to make sense of their life and, thanks to this meaning system, to develop life aspirations that lead to a sense of

purpose (Kashdan et al., 2023). Furthermore, once one has gained a sense of purpose, it may then drive meaning, thus creating a bidirectional relation between the two concepts (McKnight & Kashdan, 2009). While there are numerous benefits to experiencing meaning in life—which will be elaborated on below—there are psychological benefits unique to purpose (Kashdan et al., 2023), and as such researchers should endeavour to differentiate the two concepts, in particular when developing interventions to increase well-being.

Purpose in life should also not be conflated with a person's values—albeit, the two concepts can be closely related and thus be difficult to distinguish. It has been proposed that values and purpose in life drive one another. For example, values may lead to a greater sense of purpose, if individuals are aware of their values and can intentionally connect them to particular goals (Kashdan et al., 2023). The reverse is also possible, with purpose in life driving values, when an individual is pursuing purpose-related goals that result in a strengthening of pertinent values (Kashdan et al., 2023).

Lastly, purpose in life should be differentiated from goals. Purpose in life is linked to greater persistence over time and across environments, as it stems from a central driving force (McKnight & Kashdan, 2009), which is not necessarily the case for goals unrelated to purpose. Goals are, of course, a part of purpose in life, as purpose allows one to set goals that align with it and perhaps to concurrently manage several associated goals. In comparison, when individuals with a low sense of purpose succeed in achieving a particular goal, it has been argued that they may struggle with identifying their next goal without the catalysing force of purpose in life (McKnight & Kashdan, 2009).

Purpose in Life: Development

In order to cultivate the presence of well-being and positive functioning, one must not only take into consideration the absence of distress and ill-health, but also how persons interact with their environment in a manner that taps into a sense of purpose (Boreham & Schutte, 2023). Doing so requires certain skills such as having insight, self-awareness, and the capacity to plan (Carver & Scheier, 2002). As such, individual differences may exist in the ability to develop a sense of purpose in life, which can be an abstract concept to comprehend. Others have stated that proactive purpose development involves elements such as curiosity, a stable self-concept, and engaging in trial and error (Kashdan & McKnight, 2009), as well as cognitive abilities such as an aptitude for sustained attention, psychological flexibility, and the calculation of optimal resource allocation (McKnight & Kashdan, 2009). It is therefore possible that nurturing such skills early on in development may facilitate the evolution of a sense of purpose in life.

In general, purpose in life rarely follows a straightforward developmental trajectory, but rather can be moulded by life experiences, trials and tribulations, and how one may react and respond to these (Damon, 2008). Specifically, it has been proposed that the development of purpose in life can be categorised into three pathways, which can be combined in a number of ways (Kashdan et al., 2023; Kashdan & McKnight, 2009). Firstly, the proactive route, which involves deliberate behaviours such as engaging in exploration and self-reflection. It includes the establishment of interests (Silvia, 2001) via curiosity and searching, as greater engagement in approach behaviours and the seeking out of novel experiences increases the opportunities for discovering and creating a sense of purpose (Kashdan & Steger, 2007). The proactive route may consist of nurturing an initial spark of interest in a particular subject. For example, if one were to pursue an interest in oncology, they may start by reading autobiographies written by cancer survivors, followed by volunteering to entertain children in a paediatric oncology ward, obtaining a summer job as a receptionist in a breast cancer clinic, and then applying to medical school in order to become a physician specialising in this area.

Secondly, the reactive pathway to developing a sense of purpose in life is often in response to adversity. This may involve direct or indirect traumatic exposure (e.g., surviving a severe car crash vs. witnessing a loved one have a severe car crash; Tedeschi & Calhoun, 2004). It has been proposed that such events may lead to a swift re-evaluation of priorities, by increasing self-reflection and the search for more rewarding experiences and behaviours (Bonanno, 2004). One of the key elements of reactive purpose development is that, via transformative events and situations, the individual accelerates the purpose development process, with an exploration phase that is shorter than the one involved in the proactive pathway (Kashdan & McKnight, 2009).

Thirdly, a person may develop purpose in life via social learning, for instance through role models (Kashdan & McKnight, 2009). This pathway is based on Bandura's (1977) social learning theory, where purpose is learned by observing another's behaviour, the emotional response linked to said behaviour, and mimicry (Kashdan & McKnight, 2009). Mentoring is a social learning method that may help facilitate finding purpose in life, as a mentor figure can aid emerging adults gain clarity regarding their interests and goals, and thus strengthen their sense of purpose (Hurd et al., 2014). Indeed, research in the United States supports the idea that role models and one's relationships play a crucial role in the development of purpose in life, with some arguing its effects are stronger than those of direct or didactic efforts that seek to enhance purpose in students (Damon & Malin, 2020). These three pathways are not mutually exclusive (Pfund et al., 2020), and support the proposition that one's purpose in life may change over time, in terms of levels and content (Mitchell & Helson, 2016).

The development and presence of a sense of purpose in life may vary according to a number of dimensions, which may shift with time. Indeed, rather than being binary (i.e., having purpose in life or not having purpose in life), purpose has been proposed to be a multi-dimensional construct positioned on different continua (McKnight & Kashdan, 2009). For instance, purpose can differ according to the dimension of strength, with the force of impact it may have on the types of behaviours a person engages in and frequency of said behaviours (e.g., volunteering at an animal shelter several times a week vs. once a month; Kashdan et al., 2023). Purpose can diverge according to scope, with either singular or multiple domains affected (e.g., volunteering at an animal shelter and pursuing a veterinary degree; Kashdan et al., 2023). Awareness of purpose in life may also vary across individuals and over time, in how conscious you are of having a sense of purpose and your ability to articulate it (e.g., knowing you care about animals vs. knowing you want to engage in activities that defend animal rights; McKnight & Kashdan, 2009). Such variability in strength, scope, and awareness may inform a person's behaviour, their decision-making, and the effort they are willing to exert in order to achieve purpose-related goals (Kashdan et al., 2023).

Thus, individual differences exist in the pathways individuals can take to develop a sense of purpose in life (e.g., Kashdan & McKnight, 2009), as well as the traits and skills they possess that may facilitate the development and continued engagement with their purpose (e.g., Carver & Scheier, 2002). These may, in turn, impact the dimension of purpose in life according to the strength it exerts on individuals' behaviours, the scope of its influence on numerous life domains, and how aware they are of their sense of purpose (e.g., Kashdan et al., 2023).

A number of researchers have investigated the lifespan trajectory of purpose. Some posit that precursors to purpose can occur as soon as early or mid-childhood, with two realisations having the potential to bolster one's sense of purpose in life at this stage: "1) I can contribute something to the world related to my special interests and skills, and 2) There is something in the world that needs to be improved" (Damon & Malin, 2020, p. 115). Nonetheless, research regarding purpose in life in childhood is relatively scarce as it primarily appears to have focused

on adolescence onwards (Damon & Malin, 2020), and as such more investigation needs to be done in order to verify whether its development may begin at such early stages.

In terms of lifespan development, a large proportion of the research on purpose in life has concentrated on old age, where some individuals are said to experience declines in personal growth and purpose in life (Ryff, 2014). One study that assessed three different age groups (young adults, age 25 to 29; midlife adults, age 30 to 64; older adults, age 65 and over) found that older adults scored significantly lower on purpose in life, as compared to the other two age groups. However, the authors stressed that longitudinal data is needed to understand whether this decline is due to life course development or a cohort effect (Ryff & Keyes, 1995). Another group of researchers, using a longitudinal approach, also found greater decline in purpose in life in old age (age 60 to 75), as compared to younger age groups (adulthood [age 32 to 51] and midlife [age 52 to 59]; Springer et al., 2011). However, the statistically significant age-related changes explained a very small proportion of the variance in psychological well-being dimensions (1% or less). As such, this team of researchers emphasised that there was far greater variation within age groups than between age periods (Springer et al., 2011), implying that these developmental differences require greater exploration. With this awareness of how purpose may develop, within an individual and across the lifespan, we turn to a brief overview of how purpose in life may be beneficial.

Purpose in Life: Benefits

Research on purpose in life has increased exponentially since the 1990s (Kashdan et al., 2023). It is a complex concept that—as previously noted—has been defined in a number of ways. A call has been made for more research that offers testable hypotheses, which may offer further insight into resilience and how purpose in life is involved in it (McKnight & Kashdan, 2009). From a practical standpoint, purpose in life can be conceptualized, and analysed, as a predictor, mediator, moderator, or outcome variable (Kashdan et al., 2023). Furthermore, variability in purpose in life may depend on how it is measured: Whether the focus is purposeful behaviours, purposeful thoughts, or purposeful feelings. For example, while an individual may perceive their life as being imbued with a sense of purpose, their emotional experience of feeling purposeful may vary from day to day (Pfund et al., 2024). Indeed, it is important to keep in mind that we cannot always wholly control what we do in a day and, as such, whether we are engaging in behaviours that align with our sense of purpose. With this in mind, it would make sense that there may be more variability in purposeful behaviours versus purposeful thoughts and feelings, since the latter we have greater control over (Pfund et al., 2024).

Much of the research conducted on purpose in life focuses on its connection to well-being and its protective effects regarding physical and mental ill-health. As such, this overview is subdivided into these three areas, beginning with the link between purpose in life and mental health.

Purpose in Life and Mental Health

Positive mental health has been defined as optimal well-being, which includes feeling well (i.e., hedonic well-being, commonly defined as high positive affect, low negative affect, and life satisfaction [Ryan & Deci, 2001]) and functioning well (i.e., eudaimonic well-being, elaborated on below; Trompetter et al., 2016). The presence of positive mental health has been shown to longitudinally protect against negative symptomatology later on in life (Trompetter et al., 2016). It has been argued that, rather than being the opposing end of the spectrum of psychopathology, it is on a separate continuum that needs to be studied on its own, for instance by investigating its effects as a resilience factor (Trompetter et al., 2016). Purpose in life may be

treated as one such resilience factor, with a number of studies investigating its link to mental health.

Depressive disorders and anxiety disorders are the most common categories of mental health problems, with 12-month prevalence rates among adults ranging between 0.5% and 7%, and 0.4% and 9%, respectively (American Psychiatric Association [APA], 2013). One meta-analysis that investigated the relation between sense of purpose and depression and anxiety (n = 66,468) found that greater purpose in life was significantly associated with lower depression (effect size $r = -.49$) and lower anxiety (effect size $r = -.36$; Boreham & Schutte, 2023). These authors hypothesised that purpose in life could play a role in reducing avoidance tendencies in individuals who suffer from anxiety and/or depression, which is one of the potential mechanisms for its beneficial effects (Boreham & Schutte, 2023). The presence of a strong sense of purpose in life has been shown to mitigate suicidality and serve as one of the most powerful reasons to live (Linehan et al., 1983), thus indicating a possible protective function. Inversely, the absence of purpose in life has been associated with greater rates of depression (Wood & Joseph, 2010), as well as greater reported suicidal ideation (Hill et al., 2016). Other mental health diagnoses have also been studied, such as individuals with posttraumatic stress disorder (PTSD) who self-reported higher rates of purpose in life exhibiting fewer symptoms of PTSD (Ryff, 2014).

Additionally, purpose in life has been associated with indicators of mental health concerns—ones that are either associated with psychopathology or increase the risk of its development. For instance, greater purpose in life has been linked with lower stress reactivity (Sutin et al., 2024a), as well as lower levels of perceived stress, and may serve as protection against adverse effects from negative life events (Schaefer et al., 2013; Scheier et al., 2006). Indeed, when analysed as a predictor, purpose in life was shown to contribute to healthy self-regulation after an individual experienced a stressful or traumatic event (Bonanno & Burton, 2013). In contrast, lower reported purpose in life has been related to increased maladaptive self-regulation, such as alcohol consumption, marijuana use, and cigarette smoking (Hill et al., 2016; Minehan et al., 2000). To summarise, the relation between greater purpose in life and psychopathology, as well as factors that may contribute to mental ill-health and unhealthy life habits, has been well-established in the research literature.

Purpose in Life and Physiological Health

A number of researchers have investigated what impact, if any, the presence of purpose in life may have on physical well-being and cognitive functioning. Much of this inquiry has been made using longitudinal approaches and older adult samples. For example, one prospective longitudinal study evaluated the physical and behavioural health outcomes related to greater purpose in life in American adults over the age of 50 (N = 12,998) across a four-year period (Kim et al., 2022). Key findings regarding individuals high in purpose in life, in comparison to those rating low on the variable, include general greater physical health, as noted by higher self-rated health, a lower risk of stroke, lung disease, mortality, physiological functional limitations, and cognitive impairment, as well as a lower number of chronic health conditions. In addition to greater physical health indicators, those high in purpose in life were reported to have greater behavioural health, as measured by higher physical activity level and lower rates of sleep problems. These results were maintained while controlling for potential confounding factors, such as sociodemographic variables (e.g., age, sex, health insurance, employment status, etc) and baseline rates of physical, psychological, and behavioural health, as well as initial levels of purpose in life. As such, the authors concluded that interventions that seek to increase purpose in life may be helpful for one's physiological health and health-related behaviours, including for older adults (Kim et al., 2022). Another group of researchers came to a similar conclusion, by

conducting a longitudinal study of 23 years (N = 5,993). They compared which variable—life satisfaction or purpose in life—was a more robust predictor of longevity. They found that purpose was the more robust predictor, therefore emphasising that purpose in life should be attended to as people age (Martela et al., 2024), for instance through interventions to increase or maintain one's sense of purpose.

There is some evidence to support the benefits that purpose in life has on cognitive faculties. A series of studies have emphasized the importance of purpose in life as a protective variable in regards to the risk for mild cognitive impairment and Alzheimer's disease (Boyle et al., 2010). Greater purpose in life was associated with fewer damaging effects of Alzheimer's disease on cognition, including in participants who, post-mortem, showed presence of organic pathology in the brain (Boyle et al., 2012). A longitudinal study that included both middle and older adults (ages 52 to 80) found that the presence of purpose in life was linked to healthier cognitive functioning up to 28 years after baseline measures were taken (Sutin et al., 2024b). Furthermore, the same study indicated that having low self-reported purpose in life—in particular among those aged 60 and older—was linked to steeper declines in purpose and a greater risk of being diagnosed with dementia at 80 years old (Sutin et al., 2024b). Overall, several of these authors (e.g., Kim et al., 2022; Martela et al., 2024) encouraged the investigation of potentially malleable health assets that may bolster an individual's health behaviours and physical well-being—such as purpose in life—especially in light of a predominant focus on risk factors of disease, which frequently take the forefront in research, intervention, and policy.

Purpose in Life and Well-Being

As previously noted, there are two broad perspectives on well-being: 1) The hedonic perspective (i.e., well-being as happiness [high positive affect, low negative affect] and life satisfaction), 2) The eudaimonic perspective, focused on healthy psychological functioning (i.e., self-realisation and full functionality; Ryff, 1989, 2014; Saricaoğlu & Arslan, 2013). The latter component is based on Ryff's model (1989, 2014), which proposes that purpose in life is a core element of well-being, along with five other primary components: autonomy, personal growth, environmental mastery, positive relationships, and self-acceptance. This eudaimonic perspective stems from Aristotle, who asserted that the greatest human good is not the search for happiness, but rather it is behaving in ways that align with virtue, so as to endeavour "to achieve the best that is within us" (Ryff, 2014, p. 11). Indeed, the model posits that happiness should not be viewed as the absolute goal of life, but rather as a fortunate consequence of engaging in healthy psychosocial functioning (e.g., bettering relationships with others; Ryff & Keyes, 1995). While the model of psychological well-being is frequently cited in the positive psychology research literature, some have argued that purpose is an attribute that is distinct from well-being without being a component of it, that can, nonetheless, impact well-being (Kashdan et al., 2023). Additionally, although the psychological model of well-being is put forth as being multidimensional, with six factors (Ryff, 2014), several groups of researchers have found that there is little empirical support for this (e.g., Springer et al., 2011). Such discrepancies illustrate the complexity of the well-being research literature, encouraging greater and more nuanced empirical study into this topic.

Overall, purpose in life has been linked to a number of traits, states, and behaviours that align with positive functioning and well-being—whether one is considering the hedonic or the eudaimonic perspective. Indeed, greater purpose in life was related to higher life satisfaction and psychological well-being (Bronk et al., 2009), as well greater positive affect and lower negative affect (Pfund et al., 2020). In terms of individual traits, purpose in life has been associated with several Big Five personality traits, namely extraversion, neuroticism, and conscientiousness

(Schmutte & Ryff, 1997). When controlling for Big Five personality traits (i.e., extraversion, neuroticism/emotional stability, conscientiousness, openness to experience, and agreeableness), purpose in life predicted a number of well-being correlates, such as personal agency and the consideration of future consequences (Hill et al., 2016). In an adolescent sample, researchers have found that purpose in life correlated with gratitude, compassion, and grit, with the authors concluding that these are distinct constructs that may be nurtured early on in development (Damon & Malin, 2020). In addition to individual traits and strengths, a longitudinal study found that individuals with greater purpose in life reported more frequent contact with friends (Kim et al., 2022), making it a potential variable of interest to target in order to combat the so-called epidemic of loneliness recently identified as a public health threat (Hong et al., 2024). Taking into consideration these broadly positive associations between purpose in life and well-being, it may come as no surprise that significant numbers of participants in countries such as the United States, Germany, Norway, and Portugal indicate a preference for a life imbued with purpose and meaning rather than one that centred on simple happiness (Kashdan & Goodman, 2023; Oishi & Westgate, 2022).

This overview enumerates the broad benefits that purpose in life can have in terms of mental health—such as lower rates of depressive and anxiety symptoms (Boreham & Schutte, 2023)—physical health—such as greater longevity (Martela et al, 2024)—as well as various indicators of well-being (e.g., life satisfaction; Bronk et al., 2009). An important aspect to keep in mind is potential gender differences for purpose in life, and, as such, its potential benefits. One group of researchers found that women tended to report higher rates of purpose in life, as compared to men (Xi et al., 2022). They put forth the hypothesis that these gender differences were accounted for, at least in part, by altruism, in that women engaged more in altruistic behaviours and attitudes and consequently perceived greater purpose in their life (Xi et al., 2022). Such gender differences, as well as differences across other sociodemographic variables, may be of interest for further investigation. Additionally, longitudinal research is particularly necessary, so that we may better understand long-term effects and changes in sense of purpose across the lifespan. Longitudinal investigation would provide clearer understanding for the type and timing of interventions so as to be most suitable, allowing for a bolstering and/or maintenance of purpose in life. One developmental period that could be particularly fitting for such interventions and inquiries is the emerging adulthood stage of the lifespan.

Purpose in Life During Emerging Adulthood

Emerging adulthood was originally defined as the period of the lifespan between ages 18 and 25, and more recently as spanning the ages 18 and 29 (Arnett, 2000). It is labelled as the age of possibilities, with characteristics such as identity exploration, instability, self-focus, and subjectively feeling in-between—as neither a teenager nor an adult (Arnett, 2008a). During this period of development, individuals may experience frequent transitions and changes, when many potential futures appear available and the primary belief is that life will turn out well, even if the emerging adult is experiencing difficulties in the present (Arnett, 2008b). Indeed, the transition from adolescence to adulthood is a window of opportunity for positive change, when neurobiological and ecological shifts occur that may work as catalysts for a positive turning point in trajectory (Masten et al., 2004). Moreover, a meta-analysis using a modified Big Five framework concluded that the majority of mean-level changes in personality traits happen between the ages of 20 and 40 (Roberts & Mroczek, 2008), with this period of the lifespan showing the greatest amount of within-person change (Schwaba & Bleidorn, 2018). Therefore, emerging and young adulthood may be the most pivotal period of the lifespan when it comes to shifts in personality traits. The authors noted that these changes are not simply fluctuations

around a set-point, but rather indicate that when people change, the shifts in personality traits are often retained across the lifespan (Roberts & Mroczek, 2008). As such, personality trait shifts, choices made, and interventions experienced during this window of opportunity can have long-lasting consequences for the future (Howard et al., 2010), making it an optimal time for the development of purpose in life.

Lifespan theory states that each period of our lives has particular developmental tasks assigned to it, which include specific challenges, demands, and opportunities (Salmela-Aro et al., 2007). Given the numerous transitions and changes experienced during emerging adulthood, it is no surprise that there is a great variability among individuals regarding such developmental tasks (Arnett, 2008b). Furthermore, due to decreased standardisation and increased individualisation, the pathways through the transition to adulthood have increased in its diversity since the 1960s (Shanahan, 2000). This diversity is in part caused by existing trajectories that were restrained previously (due to the structure of educational settings) now being set free. Emerging adults have more agency in selecting their directions and more flexibility to do so, with the added benefit of increased geographical mobility, which is highest during this developmental period than at any other time (Schulenberg et al., 2004b). Subsequently, while there are developmental tasks that emerging adults are encouraged to accomplish, there is also a level of freedom to decide what to focus on, when to focus on them, and how to engage with one's goals—freedom that can potentially be guided by purpose in life.

While there is diversity in trajectories that emerging adults undertake, there are some developmental tasks that need to be completed successfully to experience optimal development in adulthood (Schulenberg et al., 2004b). Seven developmental tasks have been identified as being of particular importance: work and education (i.e., achievement), connection with peers and involvement with romantic partners (i.e., affiliation), citizenship (i.e., meaningfulness), healthy lifestyle (i.e., substance use avoidance), and financial independence (Schulenberg et al., 2004a). Difficulties in transitioning to adulthood can manifest in various ways, such as postponing certain developmental tasks, or fluctuating between transitory states (Shulman, 2017). When faced with such difficulties and potential setbacks in achieving developmental tasks, an individual's well-being and ability to engage in future decision-making may be at stake (Taber & Blankemeyer, 2015). Overall, however, mental health tends to improve in emerging adulthood, as shown with increases in well-being, decreases in depressive affect, and a reduction in antisocial behaviour (Schulenberg & Zarrett, 2008). Paradoxically, emerging adulthood is also a period where there is the greatest risk of receiving a diagnosis of psychopathology such as schizophrenia, bipolar depression, borderline personality disorder, and major depressive disorder (Schulenberg & Zarrett, 2008). One cannot help but wonder: What is the cause of this heterogeneity? It has been suggested that the lack of institutional structure and social support during this developmental period is in part to blame. Indeed, as it is a time of personal freedom, this may increase the well-being of some individuals, but also make those who require guidance feel lost (Schulenberg & Zarrett, 2008). Additionally, the onset of depression in emerging adulthood may be in part due to relatively sudden and extensive changes (Schulenberg & Zarrett, 2008). This is where purpose in life may be helpful, in order to benefit emerging adult mental health and provide guidance for the achievement of certain developmental tasks.

In addition to potential benefits for mental health and developmental tasks, purpose in life is likely an important characteristic in regards to identity formation during adolescence and emerging adulthood (Hill et al., 2016). Indeed, some researchers (Burrow & Hill, 2011) believe that a person's purpose in life is a form of "identity capital" that one gains during this critical developmental stage (Hill et al., 2016). Others concur that purpose in life goes hand-in-hand with

identity development, which is at its peak during the emerging adulthood years (Pfund et al., 2020). Consequently, postsecondary studies have been proposed as a context that inherently stimulates the development of purpose, with emerging adults exploring their sense of purpose by finding major goals for themselves, and committing to a purpose in life when they make a choice about what purpose-driven goals they will pursue (Pfund et al., 2020). There is support for the proposal that purpose in life is more malleable at this time, given that, compared to other character strengths, purpose appears to develop relatively late in the lifespan, with few adolescents and emerging adults achieving a complete coherent purpose (20 to 25%, Damon, 2008; Moran, 2009). This proportion increases by the end of emerging adulthood, with between 40 and 50% indicating a sense of being purposeful by age 30 (Damon & Bundick, 2017). This within-person variability in purpose in life is likely greater for younger adults because of the life transitions tied to the emerging adulthood developmental stage (Arnett, 2000), with middle-aged adults reporting higher and more stable purpose in life than younger adults (Mann et al., 2021) and older adults (Hedberg et al., 2011).

Thus, emerging adulthood has the potential to be an optimal time during which individuals explore, determine, and enhance their sense of purpose in life. This is facilitated by elements that create a developmental environment that is suitable for such a task. Firstly, emerging adulthood is a time where mean-level changes in personality traits may occur, and then be solidified for one's life course (Roberts & Mroczek, 2008), allowing for identity formation and development to occur (Pfund et al., 2020). Secondly, it is a period of great fluctuation, with a great number of opportunities, transitions, and challenges (Arnett, 2008b), as well as particular developmental tasks that individuals are encouraged to achieve (Salmela-Aro et al., 2007). Thirdly, while mental health tends to improve during emerging adulthood, there are some individuals who encounter setbacks and experience emotional distress (Schulenberg & Zarrett, 2008), and who would therefore benefit from character strengths that would counter these emotional difficulties. Lastly, it is a period where most emerging adults have not yet fully developed a purpose in life (Damon, 2008; Moran, 2009), with a plethora of opportunities to explore and construct one's sense of purpose thanks to flexibility that may not be as available later on in life. Indeed, it may be the opportunities that arise from transitions and difficulties in particular that have the potential to both create a need for and facilitate the development of purpose in life.

Purpose in Life During Emerging Adulthood: Transitions and Stressful Periods

Emerging adulthood is the developmental stage where individuals are faced with more transitions and are required to make more decisions than at any other period of the lifespan (Shulman & Nurmi, 2010). Such developmental transitions represent large-scale life changes for individuals—within their social roles and environments—that offer the possibility for alterations in the course of mental health (Schulenberg et al., 2004b). It has been put forth that how successfully one manages the different transition-related tasks is related to the course of one's well-being, with the potential to either maintain or increase one's well-being trajectory (Schulenberg et al., 2004a). This association between success in various developmental tasks and the course of well-being during emerging adulthood was robust, irrespective of initial levels of well-being (Schulenberg et al., 2004a). However, transition levels and trajectories can vary strikingly between emerging adults, with individuals often experiencing periods of independence followed by reverting to more child-like behaviours, in at least one or two domains (e.g., financial independence, employment, living outside the parental home; Cohen et al., 2003). Given these periodical changes, it has been argued that life transitions are no longer characterised as successively manageable passages, but instead are composed of shifts in trajectories,

discontinuities, and, oftentimes, a feeling of uncertainty and distress (Shulman et al., 2005). There are a number of individual differences and contextual factors—stemming from childhood, adolescence, and emerging adulthood—that can influence the outcomes of such transitional periods (Masten et al., 2004). The goal of this thesis is to explore how purpose in life may benefit individuals traversing transitional and potentially stressful periods during emerging adulthood, and enrich our understanding of the mechanisms behind purpose and its maintenance.

There is a strong argument to be made for why purpose in life may help emerging adults organise their next steps during and following transitional periods, such as when pursuing and exiting postsecondary studies. Purpose in life has been associated with hope, self-efficacy, and grit, which paints a picture of individuals who have a greater sense of purpose also being more perseverant (Pfund et al., 2020). All of these qualities are beneficial in bolstering a person's ability to successfully manage transitions and difficult situations. Moreover, studying purpose in life before, during, and after transitional periods—such as when finishing university or entering the labour market—may also be beneficial, as it grants clarity on individual differences in purpose (Pfund et al., 2024). Additionally, it has been suggested that greater purpose in life may not only allow emerging adults to better manage transitional stressors, but also protect them from negative experiences that may occur during this developmental stage (Compas et al., 2001). With these findings in mind, we turn to the current studies, which explored the benefits, mechanisms, and maintenance of purpose in life in emerging adulthood.

Current Studies

Given that positive turning points in mental health trajectories may reflect resilience, it has been suggested that more research was needed to better understand these turning points (Schulenberg & Zarrett, 2008). After all, resilience assets (e.g., purpose in life) are often more beneficial to target in prevention and intervention programs as they function at the individual level and are thus more prone to modification, as opposed to resource factors (e.g., family support; O'Sullivan et al., 2019). Exploring the benefits, mechanisms, and maintenance of purpose in life could inform the development of interventions to bolster this asset, as well as broaden our understanding of its functioning.

Study 1

In many Western societies, such as Canada and the United States, the transition out of university and into adulthood lacks the support and scaffolding that we see in previous transitional periods, such as from high school to university. While this lack of structure can provide the freedom of self-direction, it may also lead to certain individuals feeling lost and "floundering" (Schulenberg et al., 2004b). As such, a promising suggestion is to bring together research on career and resilience (Hamilton & Hamilton, 2008). After all, work is frequently seen as the primary source of self-expression and life satisfaction for adults, as factors often experienced through work—concentration, challenge, satisfaction—tend to occur within this realm (Schneider, 2009). Furthermore, finding work is one of the central developmental tasks during emerging adulthood, and completion of goals within this area in the latter half of one's 20s has been associated with greater well-being (Shulman & Nurmi, 2010). Work is also one of the two areas of life—alongside family—where individuals have reported to most likely seek a sense of purpose in life (Damon & Malin, 2020). However, the transition to employment can be difficult for some, given the current labour landscape. Emerging adults entering the workforce for the first time post-university may find themselves overqualified for entry-level positions, which tend to have lower wages, leading to lower productivity and decreased well-being (Drolet, 2017; Schoon & Silbereisen, 2009). Additionally, emerging adults are often likely to find work that is temporary and/or part-time (Drolet, 2017), and tend to experience greater rates of unemployment,

in comparison to other age groups (Galambos et al., 2006; Statistics Canada, 2022a). Finding psychological assets and resources that may support emerging adults can therefore be helpful in mitigating the potential difficulties faced during this transitional period.

Given these findings, emerging adults attending a large urban university and completing their first postsecondary degree were recruited. A longitudinal multilevel modeling approach was taken to investigate the transition before graduation to one year post-completion of studies. Purpose in life was the central psychological asset hypothesised to have positive effects during this transition, along with social support as a resource, given its role as a predictor of how well a person manages an employment transition (Fouad & Bynner, 2008). The following hypotheses were put forth. First, on occasions when participants report having employment and greater purpose in life and perceived social support, they will experience greater well-being, as measured by satisfaction with their employment situation (Hypothesis 1). Second, higher levels of purpose in life and perceived social support prior to graduation will predict higher average levels of employment satisfaction once participants are in the workforce (Hypothesis 2). Third, higher average levels of employment will predict higher average levels of satisfaction with the employment situation (Hypothesis 3). The longitudinal design of this study, involving four timepoints, allows for analysis of any time-structured effects of the variables of interest.

Studies 2 and 3

The aims of studies 2 and 3—which are incorporated into a single manuscript—were to explore the mechanisms and maintenance of purpose in life. It is said that there are two aspects of the self that are important to self-experiences (Shulman et al., 2005). First, unity, which is defined as the extent to which a person's experiences are interrelated, organized, and have meaning. Second, continuity, which refers to the degree to which the individual experiences oneself as the same person during transitional periods (Shulman et al., 2005). The presence of unity and continuity help individuals see themselves as the captains of their destiny (Shulman et al., 2005), while engaging in meaning making is the active process of making sense of their experiences (Park & Folkman, 1997). The latter is a core concept of studies 2 and 3, and was investigated to broaden our understanding of how purpose in life may function and be maintained over difficult experiences.

As previously mentioned, purpose in life and meaning are closely related constructs. Meaning making has been defined as, "the restoration of meaning in the context of highly stressful situations" (Park, 2010, p. 257). Given that this concept may be seen as similarly abstract as purpose in life, it is important to study it from a clear theoretical perspective. In studies 2 and 3, this theoretical perspective was Park and Folkman's meaning making model (1997). They propose that there are two levels of meaning: 1) Global meaning, composed of a person's sense of purpose in life, goals, and global beliefs, 2) Situational meaning, which is the interaction between a person's global meaning and a potentially stressful situation and the person-environment transaction involved therein (Park & Folkman, 1997). The latter involves the actual search for meaning as well as the appraisal of the event, and can then have an impact on global meaning (Park & Folkman, 1997). This particular model indicates that if the situational meaning is congruent with the global meaning, the result is acceptance and resolution of the distress caused by the stressful event. However, if there is no congruence between global and situational meaning, the consequence is feelings of distress (Park & Folkman, 1997), which—in order to result in an adaptive resolution—need to be dissolved by engaging in meaning making. Via this process, an individual may either change how they appraise the stressor (e.g., "It is not as bad as I initially thought"), or change aspects of their global meaning (e.g., a change in priorities; Park & George, 2013), which lead to decreased levels of emotional distress.

Park and Folkman's (1997) meaning making model was the foundational theory for studies 2 and 3. The samples were emerging adults pursuing postsecondary studies at a large urban university during a global stressful event, namely the COVID-19 pandemic. In study 2, a cross-sectional approach was taken to investigate how purpose in life may function to promote well-being. Specifically, analyses were conducted to test whether purpose was associated with adaptive meaning making strategies and the appraisal of a stressful event, with positive effects on well-being. Several hypotheses were put forth. First, a greater sense of purpose in life would be associated with lower rates of distress, as measured by depressive and anxiety symptoms (Hypothesis 1). Second, the presence of greater purpose in life would be positively associated with engaging in adaptive meaning making strategies, such as positive reframing (Hypothesis 2) and acceptance (Hypothesis 3), which in turn would be related to lower levels of distress (Hypothesis 4 and 5). Lastly, greater purpose in life would be associated with lower rates of appraising the stressful event as disruptive to one's identity (Hypothesis 6), and in turn lower rates of distress (Hypothesis 7). This design allowed for testing of how purpose in life may benefit well-being, while also investigating the adaptive mechanisms that it may promote.

Study 3 included a diverse sample of emerging adults, with data collection completed over three time points during the academic year (T1: September 2020; T2: January 2021; T3: April 2021). These time points were associated with shifting public health policy guidelines (e.g., lockdown, curfew), with students participating in their postsecondary studies using a remote format. The aim of the study was to test how purpose in life may be maintained in the face of stressors such as the COVID-19 pandemic and remote learning, via adaptive meaning making and event appraisal. The hypotheses put forth were, first, that engaging in adaptive meaning making strategies, such as positive reframing (Hypothesis 1) and acceptance (Hypothesis 2), would predict the maintenance of purpose in life over time. Second, appraising the event as less disruptive to one's identity would be associated with greater self-reported purpose in life (Hypothesis 3). Both study 2 and 3, by investigating the mechanisms involved and the maintenance of purpose in life, may help inform interventions to bolster and sustain this adaptive characteristic, even during times of stress.

Expected Contributions

Together, these three studies seek to broaden our understanding of purpose in life as a helpful asset that may benefit individuals during transitional periods in the lifespan, and the emerging adulthood period of the life course in particular, as well as across stressful situations and circumstances. Furthermore, investigating the functional aspects of purpose in life—such as its mechanisms and maintenance—may provide clarity on how it may be supported. Such findings would hopefully encourage the development of interventions that aim to cultivate, elaborate, and sustain purpose in life, particularly during the emerging adulthood period of the lifespan.

CHAPTER 2:
Study 1

"The Transition From University to Work: The Positive Influence of Purpose in Life and Social Support"

Note: A copy edited version of this study was published in the *Canadian Journal of Counselling and Psychotherapy*, August 2022. Minor adjustments were completed in the enclosed version, as part of the doctoral thesis.

Abstract

In the transition to adulthood, the common developmental task of progressing into the workforce is potentially challenging for many. This study aimed to investigate whether the presence of particular promotive factors would benefit emerging adults who are engaged in this task. Specifically, the authors used longitudinal multilevel modeling to test how purpose in life and perceived social support co-varied with satisfaction when it came to the pursuit of employment. University students in their last semester of undergraduate study (n = 103) were recruited to complete four surveys across a year following graduation. The results indicated that on occasions when participants had greater purpose in life and perceived social support, they experienced greater satisfaction with their employment situation. In addition, greater purpose in life—but not perceived social support—before graduation predicted greater average employment satisfaction across the year. These resilience factors may ease some of the strain related to this often difficult transition, by bolstering young people's employment appraisal.

Keywords: Employment, emerging adulthood, resilience, purpose in life, social support

Introduction

The lifespan theory of development posits that each period of our lives has specific developmental tasks associated with them, including challenges to overcome and opportunities to grasp (Salmela-Aro et al., 2007; Super, 1990). One such period is emerging adulthood, the part of the life course that ranges from ages 18 to 29 (Arnett, 2008a). Two related, central tasks associated with this transitional stage of the life course are 1) establishing financial independence and 2) securing full-time employment (Shulman & Nurmi, 2010). These tasks also contribute to developing an independent sense of self. Challenges or failures faced during the search for employment can have a negative impact on young peoples' self-perceptions and professional futures as well as on other adult endeavours such as leaving the parental home and establishing a committed romantic partnership (Schoon & Silbereisen, 2009). In addition to providing financial independence, the experiences that emerging adults have within the field of employment help shape their world view, which also plays a part in helping them assume these adult roles (Domene et al., 2015). Unfortunately, securing employment is not always easy, and we see a great amount of heterogeneity in the experiences that emerging adults have when making the transition to adulthood (Shanahan, 2000). Employees who are in their 20s often have a different pattern of employment than older workers and can find themselves working low-wage positions, changing jobs repeatedly, and experiencing frequent periods of unemployment between work episodes (Hamilton & Hamilton, 2008; Ontario Ministry of Colleges and Universities, 2020). Given these common challenges, the current study seeks to identify factors that may promote resilience across this transition. We examined whether purpose in life and perceived social support were related to greater employment satisfaction in the face of the developmental task of finding work after university graduation.

Current Employment Landscape for Emerging Adults

The rate of enrolment in postsecondary programs has been on a steady rise over the past few decades, with an increase of 17.4% in Canada (Statistics Canada, 2021) and of 26% in the U.S. (National Center for Education Statistics, 2020) between 2000 to 2018. As such, at the time of the study, this route from high school to postsecondary studies and then to employment had been a common path for emerging adults. However, variability is present in the ease and the timing with which emerging adults achieve developmental milestones such as securing work (Shanahan, 2000), with some recent graduates facing a variety of challenges after completing postsecondary education, one of which is unemployment. According to previous research, unemployment is more likely to be experienced by individuals between the ages of 15 and 24 than at any other age period (Galambos et al., 2006). The rate of unemployment in this age group, which in 2019 was 11% in Canada (Statistics Canada, 2019) and 8.4% in the U.S. (U.S. Bureau of Labor Statistics, n.d.), can be traced back to the financial crisis of 2008. More than 10 years later, youth unemployment has not decreased back to pre-recession levels in several countries, including Canada, Italy, and Australia (Chiacchia et al., 2018). This group of unemployed youth is composed predominantly of individuals who are transitioning into the labour market for the first time, in most cases following academic studies (Bernard, 2013). Notably, unemployment statistics for older emerging adults aged 25 to 29 (8%) remain high in comparison to older adults (5.8% among ages 30 to 54; Statistics Canada, 2022a).

Past research indicates that many emerging adults struggle to make the transition from a scaffolded educational arena to that of the less structured workplace, with one survey reporting that 41% of graduates take as long as 12 months to find work (Chiacchia et al., 2018). This can be particularly detrimental to the mental health of emerging adults, given that previous studies

(e.g., Fergusson et al., 1997) found that individuals who had finished school and reported 6 or more months of unemployment were at a significantly higher risk of experiencing psychological difficulties (e.g., anxiety, depression, substance abuse) than those who had found employment more quickly. Furthermore, several studies in Europe have found that unemployment early in one's vocational trajectory has been linked to higher rates of unemployment and lower earnings later in life (e.g., Krahn et al., 2015). This is also the case in Canada, where a national governmental department declared that the longer it takes to achieve employment security, the greater the risk to long-term financial success (Employment and Social Development Canada [ESDC], 2022).

Unfortunately, beyond unemployment, emerging adults may face additional employment challenges, including finding long-term, full-time work that pays good wages and offers benefits and security via union protection and pensions (Domene et al., 2017). A large-scale study that followed students who had graduated in 2016 showed that employment instability extends beyond 12 months (Ontario Ministry of Colleges and Universities, 2020). Specifically, 2 years after graduation, 15% of the participants in that study were working less than full-time, 21% were working more than one job to achieve full-time hours, 23% were working in a position that required less than a bachelor's degree, 30% held temporary positions, and 31% reported to be looking for work. Moreover, 21% of recent university graduates earned less than half of the Market Basket Measure of low income, a basic standard of living indicator for families (Djidel et al., 2020). This means that for at least 2 years the ability of emerging adults to achieve other adult milestones that depend on financial security such as moving out of the parental home and establishing and supporting a family of their own was compromised for over 20% of recent graduates. Add to this the fact that half of graduates accrue student debt (median = $20,000; Galarneau & Gibson, 2020) and we see that a substantial percentage of recent graduates faces major financial hurdles upon entry into adult society.

Long-term work seems to be difficult to obtain, given that, even if they manage to secure a job, emerging adults are two to three times more likely than their older counterparts to be unemployed a year later (Rosenbaum et al., 1990). This work challenge could be linked to the increase in casual and fixed-term employment contracts, which have been shown to lead to more insecurity in the labour market (Flint et al., 2013). Indeed, employers looking for candidates to fill entry-level jobs—those typically available to recent graduates—tend to offer positions that are temporary and part-time (Drolet, 2017). While this tendency may benefit employers—given that, compared to new hires, long-term workers are more expensive for companies to sustain over time in regards to both salary and benefits—it may exacerbate further the employment problem for recent graduates (DeBell, 2006). These factors can result in frequent oscillations in and out of unemployment and to and from varying jobs, which can create a "yo-yo effect" where emerging adults move out and return to the parental home due to financial and employment struggles (Domene et al., 2015). As mentioned previously, this phenomenon has widespread consequences on other developmental tasks, leading to the postponement of financial autonomy, marriage, and home ownership (Mortimer et al., 2002).

Another potential employment barrier that emerging adults face today involves skill mismatch: There are too many highly educated individuals for too few skilled job positions (Uppal & LaRochelle-Côté, 2014). For instance, data from Statistics Canada showed that, in 2016, only one in five entry-level jobs required applicants to have a college diploma or a bachelor's degree (Drolet, 2017). Similar trends have been noted in the United Kingdom, where there is a disproportionate ratio of university graduates to jobs that necessitate a postsecondary education (Chartered Institute of Personnel and Development, 2017). There are numerous

negative consequences that result from a skill mismatch. First, emerging adults end up with lower earnings. For instance, one cohort of recent graduates who obtained employment stated that they earned 40% less than they had anticipated (Chiacchia et al., 2018). A policy report in the United Kingdom found that gender impacts these lower wages further, with the annual salary of female graduates being 10.4% less than that of their male counterparts, even when accounting for degree and discipline (Chartered Institute of Personnel and Development, 2017). Second, skill mismatch often results in a decreased likelihood of being able to gain the experience necessary to find better employment in the future (Uppal & LaRochelle-Côté, 2014), creating a feedback loop of similarly skill-mismatched job opportunities. Third, skill mismatch may lead to lower productivity (Uppal & LaRochelle-Côté, 2014), which can have unfavourable effects for the employing organization and for the emerging adult's standing in their place of work. Thus, if attendance at postsecondary institutions of learning were to increase—which was the predicted trend at the time of the study (Statistics Canada, 2019)—problems arising from mismatches in education, skills, and employment opportunity may continue (Drolet, 2017).

Thus, today's youth employment landscape may be experienced by a portion of graduates as challenging due to the rise in temporary contracts, part-time positions, and a generally volatile employment market (Morissette, 2021). These circumstances may have an adverse impact on emerging adults' psychological well-being because individuals may connect to the social and economic facets of life through their work (Blustein, 2008). Critically, the return to work in the COVID era has been slower for youth, meaning that many emerging adults will *not* "catch back up" when the economy rebounds; more will experience long-term labour scarring, whereby delayed entry into the full-time workforce, even by one year, has negative cumulative effects on financial success across the lifespan (ESDC, 2022; Stanford, 2021).

Employment is also related to psychological well-being and life satisfaction (Blustein, 2008). Individuals often hope for and search for work that they perceive to be meaningful, interesting, and rewarding. Depending on whether their job fits these criteria, work can be a source of great satisfaction or of great disappointment (Blustein, 2008). It has been suggested that employment satisfaction may be as important for emerging adults' mental health as employment status (i.e., being employed or unemployed) or wages (Winefield et al., 1991). For instance, a study found that participants with lower job satisfaction reported more depressive symptoms, while income had no effects on depression (Domene et al., 2017). Another study that investigated youth unemployment reported that participants who had higher job satisfaction showed lower levels of depressive symptoms compared to individuals who were employed but who were dissatisfied with their work (Winefield et al., 1991). A third study also supported these findings, with job satisfaction being a significant predictor of depressive symptoms, which inspired the authors to urge future researchers to investigate job satisfaction rather than to focus solely on objective measures of employment (Domene & Arim, 2016). Indeed, some researchers argue that job satisfaction is particularly important precisely because of skill mismatch, with emerging adults working in jobs for which they are overqualified, earning lower wages than should be expected based on their training, and without access to benefits and pension plans (Domene et al., 2017). For example, many graduates experience anxiety associated with feeling locked into a limited range of less desirable employment opportunities and locked out of more desirable employment opportunities because of training deficits (Robinson, 2018).

The link between job satisfaction, well-being, and depressive symptoms is concerning. Generally, the transition to adulthood is a peak period of onset for mental health problems relative to earlier in adolescence and later in adulthood (Pearson et al., 2013; Rohde et al., 2013), and overall rates of youth depression are increasing (Weinberger et al., 2018). Moreover, youth

well-being has been impacted disproportionately by the COVID-19 pandemic (Findlay & Arim, 2020), including among university students (Backhaus et al., 2020; Lessard, 2016; Odriozola-González et al., 2020; Twenge et al., 2010). Thus, given the association between employment satisfaction and well-being more generally, investigating who is at risk of experiencing lower employment satisfaction during the transition to employment is an important empirical endeavour that can aid in the development of programming to protect the mental health of emerging adults who struggle following university graduation (Hamilton & Hamilton, 2008).

Promotive Factors

Promotive factors are variables that directly predict desirable focal outcomes, in contrast to protective factors, which are variables that moderate (i.e., reduce) the risk of a negative effect on the individual exposed to risk factors and that are usually detected via statistical tests of interaction effects (Mondi et al., 2017). Among promotive factors, assets refer more specifically to promotive aspects of the self, while resources refer to promotive factors that come from the environment (Fergus & Zimmerman, 2005). Assets and resources are best understood when they are observed together over time in response to challenges (Zimmerman et al., 2013).

Sense of Purpose as an Asset

An integral part of the concept of psychological well-being, developed by Ryff and Keyes (1995), is a sense of purpose, which is a person's belief that their life is personally meaningful and has direction (Ryff, 2014). Having a sense of purpose has been associated with greater career commitment (Ryff, 2014) and with a stronger sense of agency, positive affect, and the consideration of future consequences (Hill et al., 2016). These desirable outcomes of having a sense of purpose are known to play an important part in identity formation during emerging adulthood (Domene et al., 2015; Hill et al., 2016). Indeed, Burrow and Hill (2011) stated that having a sense of purpose in life functions as a form of "identity capital" that a person fosters during the emerging adulthood years and that is vital for career development, given that having a clear sense of identity aids in work-related decision-making and planning (Domene et al., 2015). A review conducted by Pfund et al. (2020) investigated further the link between having a sense of purpose and the university experience, noting how university is a time of inherent purpose exploration. Emerging adults pursuing postsecondary education often spend this period figuring out which major goals resonate with them and deciding upon a path that they may then pursue. As such, having a sense of purpose serves as a "self-organizing life aim" (Pfund et al., 2020, p. 99) that functions as a guide by directing the ways through which emerging adults may chase their goals (including their career goals) by helping them organize steps to be taken after graduation. Others have underscored the usefulness of having a sense of purpose during this period, stating that being purposeful helps to facilitate an adaptive transition into the workforce (Blustein et al., 1997).

A study investigating the interplay of these variables in an elderly working population found that greater self-reported ratings of purpose and meaning in life predicted a greater sense of current job satisfaction (Lee et al., 2017). Another researcher found a statistically significant indirect relation between job satisfaction and life satisfaction that was mediated by a person's perception of time being spent in a purposeful manner (George, 1991). While this finding differs from the concept of a more global sense of purpose that is the variable of interest in our study, it does indicate that having meaning and purpose in everyday life plays an important part in the way employees experience job satisfaction. To our knowledge, the relation between having a strong sense of purpose and employment satisfaction has not yet been explored with a focus on this critical developmental transition among emerging adults. Given the importance of purpose to people in the emerging adulthood period more generally and to older workers with respect to

employment satisfaction, a study with such a focus may be an important asset that promotes successful navigation of employment challenges following university graduation.

Social Support as a Resource

There is ample substantiation for the positive impact that social support has on psychological well-being and across challenging life circumstances (Yu & Zhanjun, 2007), one that is emphasized further within the realm of work. For instance, studies have shown that social support works as a protective factor with respect to mental health for individuals who are unemployed (Axelsson & Ejlertsson, 2002), given that they are able to seek comfort within their social circles. Social support has also been determined to be a predictor of how well a person manages an employment transition (Fouad & Bynner, 2008), with its absence making the transition more difficult and having an adverse effect on psychological well-being (Murphy et al., 2010).

Social support is also important when a job is secured. A mixed-methods study found that individuals who experienced greater job satisfaction were more likely to obtain support from their significant others (Blustein et al., 1997). Several other studies have explored the positive link between social support and work satisfaction among nurses, whether it pertained to supportive employers (Cortese et al., 2010) or supportive family members (Öksü¨ et al., 2019). While some studies stress that it is parental support in particular that has a positive impact on employment-related factors in emerging adulthood (e.g., Masten et al., 2004; Shulman, 2017), others mention various social ties such as work colleagues as being particularly helpful when people are entering the workforce (Murphy et al., 2010).

Current Study

This study sought to heighten our understanding of how having a sense of purpose and social support may be related to greater job satisfaction during the initial transition from university to the workforce. Using longitudinal multilevel modeling, we hypothesize that, on occasions when they report being employed and having greater purpose in life and perceived social support, participants will also experience greater satisfaction with their employment situation (Hypothesis 1). We hypothesize that higher levels of purpose in life and perceived social support before graduation will predict higher average levels of employment satisfaction once participants are in the workforce (Hypothesis 2). Finally, we hypothesize that higher average levels of employment will predict higher average levels of satisfaction with employment (Hypothesis 3). Furthermore, the longitudinal design of this study allows us to investigate any time-structured effects that the variables of interest may have. We examined these predictions with a sample of emerging adults who were undergoing the transition from university to work across four time points, measured over a period of 1 year.

Method

Participants

Participants were part of an initial sample of 177 students who were all in their last semester of undergraduate studies (T1) at a large urban Canadian university and who were all pursuing their first undergraduate degree. All participants who had responded to the questionnaires at T1 were invited to take part in subsequent data collections, which were performed in October 2017 (T2), January 2018 (T3), and July 2018 (T4). Of this sample, 10 participants were excluded because they were 30 years of age or older and thus were no longer “emerging adults” (Arnett, 2008a). Examining the demographic characteristics related to the achievement of adult developmental milestones showed that, compared to participants in their

20s, more of the participants who were 30 years of age or older had children (30% vs. 0.6%), were married or in a common-law partnership (70% vs. 5.4%), and lived with that romantic partner (70% vs. 9.6%). An additional four participants were excluded because they did not graduate over the course of the study. Finally, 60 participants who went on to pursue another educational experience after graduation were also excluded from the present study. The analytic sample included 103 participants at T1, of which 89 (86.41%) completed the measures at T2, 78 (75.73%) at T3, and 67 (65.05%) at T4.

The sample identified predominantly as female (70.9%) and as white (59.2%; 10.7% South Asian, 7.8% Chinese, 5.8% Latin American, 5.8% Arab), and on average participants were in their 20s (M = 23.19, SD = 1.76, range 21 to 29 years). Subjective rating of family socio-economic status (SES) was rated from 1 (*Worst off*) to 11 (*Best off*), with most participants (65.10%) falling within the 7–8 bracket, thus indicating that the majority of the sample stated that they were slightly better off than most people (M = 7.61, SD = 1.59). The median reported parental income over the preceding 12 months was within the $50,000 to $99,999 bracket in Canadian dollars (range = *Less than $5,000* to *$200,000 or greater*). Most participants reported that their mother's highest completed level of education was either a college diploma or a bachelor's degree (66%), while a slightly lower percentage of the sample reported the same regarding their father's highest completed level of education being either a college diploma or a bachelor's degree (55.4%). Most of the students were pursuing degrees in arts and science (48.5%; 35% in business, 8.7% in the engineering and computer science, and 5.8% in fine arts).

Measures

Purpose in Life

The Purpose in Life (PIL) subscale from Ryff's (2014) Scales of Psychological Well-Being was used to measure participants' sense of purpose in life at all four time points. The PIL subscale consists of 14 items, half of which are reverse scored. The scale includes items such as "I enjoy making plans for the future and working to make them a reality" as well as reverse scored items like "I don't have a good sense of what it is I'm trying to accomplish in life." All items are measured on a Likert-type scale that ranges from 1 (*Strongly disagree*) to 6 (*Strongly agree*). Higher scores indicate a greater sense of purpose in life. The PIL subscale was found to be reliable for the current sample (α =.82 at T1; .90 at T2; .90 at T3; .90 at T4).

Perceived Social Support

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988; see also Dambi et al., 2018) assessed perceived social support. This scale includes 12 items that are rated on a Likert scale ranging from 1 (*Very strongly disagree*) to 7 (*Very strongly agree*), with higher scores indicating greater perceived social support. The MSPSS contains items such as "I can talk about my problems with my friends" and "My family really tries to help me." The items provide a global score of perceived social support and can specify scores for three subscales: family, friend, and special person. The MSPSS was found to be reliable in this sample (α = .91 at T1; .91 at T2; .92 at T3; .91 at T4) and was used across all waves of assessment.

Post-Graduation Employment Status and Satisfaction

Employment status was assessed at T2, T3, and T4, following the completion of the participants' university degree. Participants were asked the following question: "After graduating university, people pursue various different paths, such as employment, education, figuring out next steps, travelling, leisure activities, etc. At this current point, which of the following situations apply to you?" A list of 13 possibilities was provided, including options related to work (e.g., "I am looking for employment"), education (e.g., "I am a graduate or professional schools student"), and other pursuits that did not fall into the aforementioned categories (e.g., "I am

travelling or taking vacation"). Only participants who selected one of the employment-related options were included in the study. If a participant selected an education-related option at any wave, they were excluded from the study, since the population of interest consisted of those individuals who were transitioning from university to the workforce. Employment status was coded dichotomously, with participants scoring a 0 if they were unemployed and/or looking for employment and a 1 if they were employed full-time or part-time. Results showed that 82% of the sample (n = 89) was employed at T2, 88.46% (n = 78) was employed at T3, and 87.88% (n = 66) was employed at T4.

After indicating their employment status, participants were then asked, "How satisfied are you with your current situation, as indicated by the answer you provided?" Satisfaction was measured on a Likert scale, ranging from 1 (*Very unsatisfied*) to 7 (*Very satisfied*), as with other single-item satisfaction ratings (e.g., Ghetta et al., 2020). One meta-analytic study (Wanous et al., 1997) concluded that single-item measures of job satisfaction were acceptable for research purposes.

Procedure

Participants were recruited for this four-part longitudinal study as a result of flyers posted on campus, advertisements placed in student-run news bulletins, class visits conducted to upper-year courses, and members of student groups having been invited to like the study's page on Facebook. All advertisements, whether online or in print, listed a web address that provided further information about the study as well as instructions on how to register for it. Those participants who registered were then invited to take part in small organized in-person briefing sessions, during which time they learned more about the study, provided their informed consent, and completed the demographics portion of the study. Following this, participants were given a unique ID and a web link that would lead them to the remaining T1 questionnaires, which they had 2 weeks to complete online. These recruitment strategies and briefing sessions were conducted between January and April of the participants' last semester prior to their expected graduation. The recruitment process was boosted further toward the end of the semester, through the invitation of students to take part in the study via the website for the psychology department's participant pool and via additional class visits. These students completed an online version of the whole set of questionnaires, including the demographic section. The participants who took part in the study through the student participant pool received either course credit or a monetary compensation at each measurement time.

To encourage participation during the first three waves, participants received $20 in compensation, via online transfer or a cheque sent through the mail, except for those students (5%) who, at T1, had expressed their preference for receiving course credit for the psychology research pool instead. Additionally, those participants who took part in the T1 in-person briefing session were given a $5 Starbucks gift card for attending the meeting. Lastly, at T4, participants were given $25, a $5 increase over the previous waves, to increase retention. This study was approved by the university's ethics review board, and participants provided their informed consent at each testing wave.

Results

Descriptive statistics can be found in Table 1.1, while cross-wave correlations for the study variables are reported in Table 1.2. The main analyses were performed using Mplus 7.3 (Muthén & Muthén, 2010) multilevel analysis capabilities and the Maximum Likelihood Robust

estimator, which is robust to non-normality and to the multilevel nature of the data. Missing data were handled using full information maximum likelihood (FIML) procedures (Enders, 2010).

Multilevel modeling was used to assess the associations between employment status, purpose in life, and perceived social support as well as participants' within-person (Level 1) and between-person (Level 2) ratings of satisfaction with current employment situations. Analyses were performed in a stepwise manner through the building of increasingly complex models, following Singer and Willett's (2003) recommendations. As per Howard (2015), all predictors were person-mean centred at Level 1 to model time-specific intra-individual variability over time. This allowed us to investigate how an individual's deviations from their average level of employment status (i.e., whether they were employed or unemployed), purpose in life, and perceived social support were associated with fluctuations in satisfaction with current employment situations. At the between-person level (Level 2), pre-transition (T1) grand mean-centred levels of purpose in life and perceived social support were incorporated, as well as a grand mean-centred averaged employment status score obtained across T2, T3, and T4. This method made it possible to parse the effects of Level 1 predictors into their within-person (time-specific fluctuations) and between-person variance components and in turn to test the effect of intra-individual variability separately from between-participant differences in relation to the pre-transition levels of asset (purpose in life) and resource (social support) and to their post-transition employment history.

The following model-building steps were taken to obtain the final results of the study. First, an unconditional model (Model 1) that omits any Level 1 or Level 2 predictors is utilized to parse the total outcome variance into within-person ($\sigma^2 = 1.61$) and between-person sources ($\sigma^2 = 1.29$) of variation. The observed intra-class correlation coefficient (ICC = .45) showed that a significant proportion (45%) of the total variability in employment satisfaction was located at the participant level, whereas 55% of the variability reflected time-specific fluctuations. Second, Model 2 included the Level 1 predictors of employment status, purpose in life, and perceived social support. This model included a random intercept, a fixed effect of perceived social support, and random slopes for the effects of employment status and purpose in life. For Model 3, we added the Level 2 predictors, which were T1 perceived social support and purpose in life, and average employment status across Waves 2, 3, and 4. For Model 4, we included all demographic covariates: sex, age, ethnic identity, and subjective SES. Results for all models are described in Table 1.3.

Consistent with Hypothesis 1, participants at the intra-individual level (Level 1) tended to be more satisfied with their current employment situation on occasions when they were employed (i.e., had a greater level of employment than their average; $b = 1.22$, $p = .001$), when they reported greater purpose in life ($b = 0.66$, $p = .029$), and when they reported receiving higher levels of social support ($b = 0.54$, $p < .001$). With respect to pre-graduation effects, we found support for Hypothesis 2 for purpose in life but not for social support. Supporting Hypothesis 2, having greater purpose in life prior to the transition (T1) predicted greater employment satisfaction on average ($b = 0.72$, $p = .001$), but contrary to Hypothesis 2, perceived social support before graduation (T1) did not predict greater average satisfaction with employment ($b = 0.03$, $p = .832$). Support was found for Hypothesis 3. At Level 2, with respect to inter-individual differences, average levels of employment following graduation predicted greater employment satisfaction on average ($b = 1.44$, $p < .001$). In addition, statistically significant between-person differences were found for two demographic covariates, namely sex ($b = 0.75$, $p = .027$) and ethnic identity ($b = –0.57$, $p = .029$). This indicates that female participants experienced greater satisfaction with employment on average compared to male emerging adults, as was the case with

participants who identified as white compared to participants who identified as racialized individuals. The other demographic variables—age, subjective SES—were not statistically significant and did not contribute to prediction, and as such they were not retained in the final model.

Discussion

This study investigated the relation of purpose in life and social support with emerging adults' employment satisfaction while pursuing the developmental task of finding work following university graduation. A unique feature of the current study was the use of longitudinal multilevel modeling, which allowed us not only to observe global between-person promotive associations but also to consider within-person associations between time-related fluctuations in the variables of interest. We showed that employment status, consistent with Hypothesis 1 (intra-individual) and Hypothesis 3 (inter-individual), was associated with satisfaction. Participants had greater satisfaction with their employment situation at times when they were employed than when they were unemployed, and higher average levels of employment predicted greater average levels of satisfaction with one's employment situation. These results were expected, given that previous research had demonstrated that unemployment tended to be associated with lower levels of satisfaction with one's professional career, employment situation, and even life in general (e.g., Krahn et al., 2015; Selenko et al., 2011).

Next, we examined within-person variations of purpose in life and social support with employment satisfaction. In Hypothesis 1, in addition to predicting that being employed would be associated with satisfaction, we predicted that on occasions when emerging adults reported having greater purpose in life and receiving higher levels of social support, they would experience greater satisfaction with their employment situation. The analyses supported this hypothesis. As such, whether an individual is looking for work, is employed full-time, or is employed part-time, and whatever that job may entail, having a sense of purpose in life and feeling well-supported may help emerging adults appraise their work situation more positively, leading to individuals experiencing greater satisfaction with their work or with their job search.

We also hypothesized that having a greater sense of purpose and feeling more supported socially *prior* to one's university graduation would promote higher average levels of employment satisfaction once emerging adults entered the workforce (Hypothesis 2). This hypothesis was partially supported, given that participants who had a greater sense of purpose before graduation experienced greater average levels of satisfaction with their employment situation across the following year. However, reporting higher levels of social support before graduation did not result in higher average levels of work satisfaction, contrary to our hypothesis. If we bear in mind the previously described within-person associations, our results thus suggest that social support may be more important for employment satisfaction when emerging adults are establishing employment than before they begin this transition. This finding is consistent with the stress buffering hypothesis described by Cohen and McKay (1984), who proposed that social support is psychologically protective only when a challenge is present. The results of our study indicate that, while having a strong sense of purpose helps emerging adults during this transition via lasting as well as immediate effects, social support matters more in the moment of challenge itself. An alternative explanation could be that the social networks established before people transition into the labour market may be supportive in the ways needed during the transition to employment. Future research should unpack and expand the ways in which social support is examined in relation to employment satisfaction.

Two other intriguing results emerged from the current research. First, female participants reported greater satisfaction with their employment situation on average when compared to their male counterparts. Second, in our ethnically diverse sample, participants who identified as white reported greater satisfaction with their employment situation than participants who identified as members of another ethnic group. Other researchers have also noted that female workers report having employment satisfaction that is either equal to or greater than that reported by male workers, even though they often find themselves in jobs that are perceived as poorer in quality and salary (Hodson, 1989; Magee, 2013). Our results demonstrate that these differences might already be present early in the career trajectory, starting in emerging adulthood. The present study also bolstered past findings regarding the impact of ethnic identity on job satisfaction, showing once again that these differences generalize to the early career transition in emerging adulthood. For instance, one study found that newly graduated Asian American and African American workers reported significantly lower job satisfaction in comparison to white workers (Mau & Kopischke, 2001). Various factors such as systemic discrimination are important (Beck et al., 2002), and as such they need to be investigated further in order to make positive changes in the workplace. Likewise, the career expectations that recent graduates and their parents may have, which differ across cultures (Ott-Holland et al., 2013), could have an impact on employment appraisal.

Results in Light of Previous Literature

Comparing our findings to those of previous literature is in some ways difficult, given that, to our knowledge, this is the first study that investigated the positive influence of the promotive asset of purpose in life and the promotive resource of social support on employment satisfaction during the transition from university to work. It is well-established that the development of a sense of purpose is closely tied to identity development, which is at its zenith during the emerging adulthood years, and that being steadfast in one's commitment to a sense of purpose is correlated with subjective well-being, which is comprised, in part, of life satisfaction (Pfund et al., 2020). In addition, as previously discussed, George (1991) found that the perception of spending time in a purposeful way mediated the relation between job satisfaction and life satisfaction, thus giving some support to our findings. However, George's sample varied significantly from ours, consisting of a group of participants who were older (M_{age} = 47.44, *SD* = 9.82), who had an average work experience of 26.66 years, and who consisted almost entirely of men (96% vs. 29.1% in the current study). Still, because the differences in psychological well-being, including purpose in life, are greater within age groups than between (Springer et al., 2011), one can infer that the two studies point in a similar direction to there being a statistically significant link between purpose and job satisfaction.

There also appears to be a paucity of research on the relation between social support and job satisfaction in emerging adulthood. Of the few studies that have investigated this association, most have studied social support that people receive either from colleagues or from supervisors (e.g., Cortese et al., 2010) rather than from parents, friends, and/or significant others, which was the focus of the current study. One study included a regression model that indicated a statistically significant association between perceived social support and job satisfaction (Wu et al., 2021), but while that study concentrated on individuals already in the workforce, our interest concerned the transitional period of exiting university and entering the labour market. Additionally, we were able to discern that the positive effect of social support on job satisfaction was time-structured, in that it was more important to experience support during this transition rather than prior to experiencing it. All in all, a perusal of the literature relating to both sense of purpose and social

support and their impact on employment satisfaction indicated that we still have much to learn regarding how these variables function.

Limitations, Future Directions, and Implications

The current research is marked by strengths with respect to the longitudinal design and to the use of multilevel modeling to parse within-person from between-person effects of both assets and resources that support employment transitions, but the results should be interpreted in light of certain limitations. First, while we sought specifically to investigate how recent emerging adult graduates experienced the transition to work, the results may not be generalizable to the subset of the population that did not attend university but rather transitioned into work following other educational pathways (e.g., from high school or from vocational school). However, in Canada, where this research was conducted, rates of postsecondary enrolment had been steadily increasing (Statistics Canada, 2021), at the time of this study.

Another potential limitation is the dichotomization of the employment status variable. The use of dichotomized measures of employment is typically discouraged but is sometimes used when there is not enough variability to create measures that reflect the full range of employment situations (e.g., Domene et al., 2017; Flint et al., 2013). It is possible that, by dichotomizing employment status in the current study, we lost some of the richer distinction of how the promotive factors impacted employment satisfaction when one is working full-time versus part-time. Furthermore, additional work-related characteristics and more specifically worded employment questions would have potentially benefited the analyses, such as information about salary, job position, and so forth. Such nuanced employment questions are frequently used in organizational psychology (e.g., Eisenberger et al., 2020) and deserve equal consideration when applied in developmental and personality research.

Finally, while the authors of the current article took the position that the challenges faced by a portion of emerging adults during the transition into the workforce can be detrimental in both the short term and the long term, there are those who argue otherwise. Specifically, it has been suggested that experiencing employment instability during this developmental period serves a particular function (Shulman et al., 2005). One may argue that frequently switching jobs is a way to ensure optimal person–environment fit, which allows the individual to find a job that corresponds to their goals and values (Lofquist & Dawis, 1991; Shulman et al., 2005). If this hypothesis is indeed correct, having a strong sense of purpose and support from one's social circle could potentially play a part in facilitating the selection of a good person–environment fit. As such, assessing fit may be a meaningful addition to this line of inquiry in the future.

Another developmentally informed direction for future research would be to assess the pursuit of other developmental tasks alongside employment seeking during this transition. Experiencing unemployment and working in low-skill jobs that do not require a university education may affect how effectively emerging adults navigate the transition from adolescence to adulthood more broadly. Specifically, emerging adults may not be able to adapt to the myriad of adult roles that they are traditionally meant to accomplish as swiftly as they could otherwise (e.g., Domene & Arim, 2016; Young et al., 2011). This has long-lasting effects at the individual level, in terms of developing characteristics such as emotional stability, self-confidence, and responsibility, which are often gained during work-related endeavours (Roberts et al., 2006). It also has consequences on a societal level, with respect to productivity linked to unemployment (Heckhausen, 2002), poverty, and declines in quality of life (Blustein, 2008). It is therefore crucial that this period of the lifespan be observed holistically to see the bigger picture, given that emerging adults face several developmental tasks at this time (e.g., work, romantic partnerships; Salmela-Aro, 2009).

These findings have significant implications in terms of intervention programs and university- and college-based counselling. Resilience researchers have stated that assets such as purpose in life are often easier and more beneficial to target in such programs because they are experienced at the individual level, compared to resource factors such as social support (O'Sullivan et al., 2019). This indicates that they may be easier to modify, which could be achieved earlier on in development, such as in high school, college, or university. This would be especially beneficial for upcoming graduates, given the data indicating that, although 83% of surveyed representatives from higher education settings indicated that their institutions prepare students adequately for the workforce, only 44% of students believed they were prepared and only 34% of employers reported that applicants were prepared (McKinsey and Company, 2015). While this finding would need to be tested empirically, focusing on more mutable characteristics such as purpose in life would allow counsellors to be better equipped when preparing students for the transition into the labour force and potentially to set them up for greater work satisfaction.

An intriguing avenue of research would be a program evaluation of an intervention that aims to find and develop a sense of purpose, across the transition out of university and into employment seeking. One review (Pfund et al., 2020) suggested two possible paths to that effect, both of which are supported by our current findings: the proactive route (i.e., finding purpose via the exploration of options), which was supported by our finding that purpose in life was higher when satisfaction with employment situation was higher, and via social learning (i.e., finding purpose by learning about it from a role model or through observation of purposeful individuals), which was supported by the finding that higher purpose in life before this transition was associated with overall higher levels of satisfaction with employment situation across the year following graduation. Investigating such programs aimed at developing a sense of purpose, akin to the intervention described by Feldman and Dreher (2012), would thus be a worthy endeavour, especially considering this asset's lasting effects. Feldman and Dreher's intervention had the benefit of being formatted as a single session targeting postsecondary students in particular, with results showing an increase in life purpose at a 1-month follow-up. It may therefore be feasible to implement such an intervention in tandem with programs already present at universities, such as ones aimed at curriculum vitae writing, job searching, and so forth. Furthermore, this research may also inform programs aimed at developing social skills, which could benefit individuals who are graduating from university and who need those skills to maintain their support network during the difficult period of transition into the workforce.

Work is often seen as one of the main sources of self-expression and life satisfaction (Schneider, 2009). However, many emerging adults experience their first steps into this sphere as challenging and overwhelming, given the societal shift from long-term, full-time employment to work that is more vulnerable (DeBell, 2006). Moreover, many workers experience a mismatch between their educational qualifications and the skills required by available jobs (Drolet, 2017). Our results showed that resilience factors such as a sense that one's life is meaningful and has purpose and a supportive social circle can help emerging adults during this challenging time, by having a positive impact on their appraisal of their employment situation, and that these factors should be promoted in employment-seeking support programs.

Table 1.1

Means and Standard Deviations of Study Variables

	M	*SD*
Purpose in life at T1	4.41	0.68
Purpose in life at T2	4.50	0.86
Purpose in life at T3	4.39	0.87
Purpose in life at T4	4.38	0.85
Perceived social support at T1	5.36	1.12
Perceived social support at T2	5.43	1.12
Perceived social support at T3	5.27	1.20
Perceived social support at T4	5.36	1.01
Employment status at T2	0.82	0.39
Employment status at T3	0.88	0.32
Employment status at T4	0.88	0.33
Employment satisfaction at T2	4.82	1.77
Employment satisfaction at T3	4.82	1.63
Employment satisfaction at T4	4.78	1.76

Note. T1–T4: Time 1 to Time 4; the employment predictor variable (employment status) and the outcome variable (employment satisfaction) were measured as of Time 2. Ranges for the measures were as follows: Purpose in life 1 to 6, perceived social support 1 to 7, employment status 0 to 1, employment satisfaction 1 to 7.

Table 1.2
Intercorrelations Among Study Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. PIL at T1		.74**	.68**	.67**	.38**	.39**	.33**	.50**	.01	.13	.10	.43**	.30**	.24
2. PIL at T2			.78**	.74**	.48**	.55**	.42**	.43**	.08	.14	.02	.55**	.49**	.29*
3. PIL at T3				.79**	.40**	.43**	.40**	.43**	.04	.10	–.02	.51**	.50**	.26*
4. PIL at T4					.43**	.45**	.40**	.51**	.11	.01	.15	.52**	.54**	.43**
5. PSS at T1						.63**	.70**	.73**	–.03	.18	.13	.18	.28*	.24
6. PSS at T2							.63**	.66**	–.07	.12	.13	.34**	.24*	.12
7. PSS at T3								.77**	.00	.13	.07	.25**	.40**	.32*
8. PSS at T4									–.07	.09	.11	.23	.27*	.40**
9. ES at T2										.37**	.19	.30**	.13	.06
10. ES at T3											.32**	.15	.25*	.00
11. ES at T4												.08	.00	.29*
12. ESA at T2													.61**	.32*
13. ESA at T3														.44**
14. ESA at T4														

*$p < .05$; **$p < .01$.
Note. PIL = Purpose in life; PSS = Perceived social support; ES = Employment status; ESA = Employment satisfaction; T1–T4: Time 1 to Time 4. Pearson Correlation data presented for all variables, except employment status, for which Spearman Correlations were used.

Table 1.3

Models Assessing the Effect of Employment Status, Purpose in Life, and Perceived Social Support on Employment Satisfaction

	Model 1 (Unconditional) Estimate (*SE*)	Model 2 (Level 1) Estimate (*SE*)	Model 3 (Level 2) Estimate (*SE*)	Model 4 (Final) Estimate (*SE*)
Fixed effects				
Intercept	4.81 (0.15)**	4.81 (0.15)**	4.81 (0.13)**	3.70 (0.61)**
Perceived social support (Level 1)		0.57 (0.12)**	0.55 (0.12)**	0.54 (0.12)**
Purpose in life at T1 (Level 2)			0.66 (0.22)**	0.72 (0.21)**
Employment at T2–T4 (Level 2)			1.43 (0.42)**	1.44 (0.39)**
Social support at T1 (Level 2)			0.17 (0.15)	0.03 (0.14)
Sex (Level 2)				0.75 (0.34)*
Ethnic identity (Level 2)				–0.57 (0.26)*
Random slopes				
Purpose in life (Level 1): mean		0.59 (0.29)*	0.59 (0.30)*	0.66 (0.31)*
Purpose in life (Level 1): variance		0.62 (0.61)	0.64 (0.64)	0.91 (0.69)
Employment (Level 1): mean		1.30 (0.34)**	1.18 (0.39)**	1.22 (0.37)**
Employment (Level 1): variance		0.32 (0.94)	0.48 (1.00)	0.19 (0.79)
Random effects				
Variance (between)	1.29 (0.27)**	1.47 (0.26)**	1.01 (0.18)**	0.88 (0.17)**
Variance (within)	1.61 (0.24)**	1.15 (0.22)**	1.12 (0.21)**	1.11 (0.21)**

*$p < .05$; **$p < .01$.

Note. SE = standard error of the estimate; T1–T4: Time 1 to Time 4.

CHAPTER 3: BRIDGE

The findings from study 1 provide support for the beneficial effects of having a greater sense of purpose in life and its association with well-being, in particular employment satisfaction, during the potentially challenging transition of graduating from postsecondary studies and entering the labour market. This is the case whether the variable of interest is viewed at a trait level—pre-transition purpose in life predicting future employment satisfaction—or at a state level—given that, on occasions when individuals reported greater purpose in life, they would experience greater satisfaction with employment. It was found that social support is a factor that functions differently in terms of its impact on a person's well-being, as concurrent support from one's family, friends, and romantic partner was associated with employment satisfaction. However, the pre-transition level of one's perceived social support did not predict the level of work satisfaction over the following year. The variability in temporal effects between purpose in life and social support catalyses further inquiry into the mechanisms involved in purpose in life, if we are to cultivate its development in emerging adults. After all, purpose in life may be a more malleable variable to hone than social support, which, by definition, is influenced by not only individual factors, but also elements brought in by one's loved ones that may cause fluctuations in perceived social support over time (O'Sullivan et al., 2019). As such, we may want to ask ourselves, what psychological mechanisms does purpose promote in order to support well-being? And further, what helps maintain purpose in life over time, despite the experience of potentially difficult challenges?

Studies 2 and 3 seek to answer these questions, by furthering our understanding of the mechanisms involved in the relation between purpose in life and well-being, as well as investigating the elements that help sustain purpose in life over time. Specifically, this was done by observing emerging adults experiencing a stressful event that played out on a global stage in an unprecedented manner: The COVID-19 pandemic. Emerging adult participants experiencing various pandemic-related stressors, such as lockdown, curfew, remote learning, unanticipated lay-offs, and so forth, were recruited for a cross-sectional analysis (study 2) and a longitudinal data collection across the academic year (study 3). Firstly, it was examined how greater purpose in life had both direct positive effects on well-being, as well as indirect effects on well-being via event appraisal and the adaptive meaning making process of positive reframing. Secondly, using a longitudinal approach over three time points, it was examined how aforementioned event appraisal and adaptive meaning making processes may help maintain purpose in life over time, despite feelings of distress and fluctuating infection rates and their associated public health guidelines. Implications of these findings are discussed in the context of interventions for the exploration, development, and maintenance of purpose in life.

CHAPTER 4:
Study 2 & 3

"Meaning making in the context of the COVID-19 pandemic: Effects of purpose in life, positive reframing, acceptance, and event appraisal"

Note: A version of this study is under revision for *Applied Developmental Science*, June 2024.

Abstract

In a continuously changing world, individuals are confronted with a number of stressors that may have negative impacts on their well-being. The COVID-19 pandemic is a recent example, with adverse consequences that have been felt on a global scale. In the face of such events, having and preserving internal psychological resources is important for maintaining well-being. Purpose in life may be one such asset. In Park and Folkman's (1997) meaning making model, purpose in life provides global meaning that guides individuals through the meaning making processes when stressful events are encountered. Based on this model, we tested the role of purpose in life for promoting adaptive meaning making in the context of the COVID-19 pandemic. In Study 1, a cross-sectional structural equation model (SEM) showed that in Fall 2020 there was an indirect effect of purpose in life on distress, via lower appraisal of the stressful event as being central to one's narrative and greater engagement in positive reframing. In Study 2, a longitudinal SEM showed that across an 8-month period spanning Fall 2020 to Spring 2021, acceptance and positive reframing positively predicted purpose, and changes in purpose in life mediated the relation between using acceptance at T1 and maintenance of purpose at T3. Implications for Park and Folkman's (1997) theory and intervention studies aimed at individuals facing stressful events are discussed.

Keywords: Purpose in life, meaning making, positive reframing, acceptance, COVID-19

Introduction

Park and Folkman (1997) proposed a meaning making model to provide an explicatory framework for the processes that individuals engage in when trying to make sense of a stressful event. According to the meaning making research literature, creating and collating meaning in the face of a stressful life event helps one restore a sense of well-being and diminish the distress triggered by the difficult situation (Park, 2010). This framework is proposed to be generalisable to the normative way of processing stressful events, as well traumatic events that may contribute to psychopathology (Park & Ai, 2006). At its core, the model proposes that individual meaning making is oriented by one's sense of global meaning, consisting of a person's beliefs (i.e., views about one's self, the world, and the self in the world; Park & Folkman, 1997), goals (i.e., states one wishes to obtain or maintain), and purpose in life (i.e., a sentiment that one's life has meaning or direction; Park, 2010). The model is reciprocal in that global meaning is purported to facilitate adaptive meaning making, and in turn adaptive meaning making sustains or restores global meaning throughout stressful experiences. Guided by this model, we conducted two studies that together assess the reciprocal relations between purpose in life and meaning making. We examined these associations in two samples of university students within the context of a novel, unprecedented, and global stressful event, namely the COVID-19 pandemic.

Global Meaning and Meaning Making

Global meaning develops and is consolidated across the life course, as individuals gain life experience (Park & Folkman, 1997). The three components of global meaning—one's beliefs, goals, and sense of purpose in life—have all been related to positive outcomes. For instance, believing that one's abilities are malleable and capable of changing (i.e., a self-in-the-world aspect of global beliefs) has been positively linked to coping and negatively associated with psychological distress (Burnette et al., 2020). Furthermore, progress on one's goals has predicted increases in subjective well-being (Steca et al., 2016). And lastly, purpose in life has been named as an indicator of psychological well-being (Ryff & Keyes, 1995), and may function as a protective factor against psychopathology and risk of cognitive impairment (Ryff, 2014). Nonetheless, global meaning can be threatened by stressful events. According to Park and Folkman's model (1997), engaging in the meaning making process protects global meaning. First, an individual appraises the extent to which an event violates one's global meaning. This step is the primary determinant as to whether the stressful event leads to experiences of distress (i.e., the interpretation of the event violates one's global meaning) or not (i.e., it is appraised as not being threatening to one's global meaning—that is, one's beliefs, goals, and/or sense of purpose). Second, if a threat is perceived and distress is experienced, the individual uses meaning making strategies to restore or preserve global meaning. Meaning making processes can be automatic (e.g., rumination) or effortful (e.g., positive reframing; Park & George, 2013). Having worked through the meaning making process, the individual either changes the initial appraised meaning (e.g., the event is not perceived as threatening as previously believed) and/or their global meaning (e.g., changed beliefs about the world, altering one's goals, a restored sense of purpose in life; Park, 2010).

Engagement in meaning making processes is robustly correlated with adaptive functioning in the short and longer term. For example, across an average span of 2.5 years, it was found that meaning making was positively associated with adaptive functioning (Abe, 2016). Investigating the protective function of the meaning making process, a longitudinal study in which adults who had reported a negative traumatic event (e.g., assault, death of a child, home loss due to a natural disaster) were followed for 19 years revealed that engaging in meaning

making predicted greater psychological adjustment over time (Fitzke et al., 2021). Another study involving emerging adults showed that meaning making partially mediated the link between distress and well-being (Meisels & Grysman, 2021). As such, the positive association between meaning making and adaptive functioning has received both cross-sectional and longitudinal support. However, there is a dearth of empirical data that investigates the reciprocal nature of the model, which is necessary to fully test the mechanisms purported to link global meaning (e.g., purpose in life) and meaning making with each other (Park & Folkman, 1997; Park & George, 2013). While several research studies utilised longitudinal approaches to test components of the meaning making model, such as with older adults facing interpersonal stress (Lee et al., 2022), in relation to mindfulness (Klussman et al., 2020), and across a shorter timeframe (2 months; George & Park, 2022), to our knowledge the current study is the first to focus on the reciprocal associations implied by the theory.

Emerging Adults During COVID-19: Impacts on Meaning Making and Purpose in Life

As an unprecedented global event, the COVID-19 pandemic has had disruptive effects across generations and borders. One group that was particularly at-risk for low well-being resulting from pandemic stress was emerging adults (Stock et al., 2022). For example, nationally representative data from Canada (Statistics Canada, 2020) showed that mental health concerns such as depression, anxiety, and stress were more prevalent for youth aged 15 to 24 years compared with older adults, with similar trends seen in the United States, France, and Belgium (Organization for Economic Cooperation and Development [OECD], 2021). Moreover, for emerging adults enrolled in postsecondary education, there is a sizeable research literature showing the negative effects of COVID-19-related stress on well-being, in particular in connection with remote learning that contributed to social isolation, reduced motivation, and elevated rates of depression (Rutkowska et al., 2022). Emerging adulthood is a phase of the lifespan that, more than any other developmental period, prioritizes social exploration and identity formation, as well as a perception of life as full of possibilities (Arnett, 2008a). Unfortunately, social distancing orders limited opportunities for exploration and for the creation and maintenance of social bonds, increasing social isolation (Almeida et al., 2022) and contributing to the stagnation of academic and occupational goals (Maatuk et al. 2022).

Purpose in life is a strong candidate for a psychological asset that may have helped some emerging adults manage this challenging event (Feder et al., 2013). Purpose in life is associated with a stronger sense of agency, positive affect, and the consideration of future consequences (Hill et al., 2016), and is linked to a variety of positive psychological, physiological, and psychosocial outcomes across the life course, including in emerging adulthood. For example, it has been found to protect individuals working in high-stress environments against burnout (Krok, 2016) and to lower the risk of Alzheimer's disease and mild cognitive impairment (Boyle et al. 2010). In emerging adulthood, purpose in life has been shown to promote better adjustment during the transition into college (Li et al., 2022), and greater employment satisfaction during the transition from postsecondary studies to the labour market (Karbainova & Barker, 2022). In the context of the pandemic, the presence of purpose in life was shown to have protective effects at the individual and community levels, with those who reported higher levels of purpose experiencing lower levels of loneliness (Kang et al., 2021), lower incidence of suicidal ideation (Na et al., 2021), and a greater willingness to engage in protective health behaviours such as hand-washing and vaccination (Hill et al., 2021; Kang et al., 2021). Moreover, there is an emerging research literature on resilience and positive outcomes that may have resulted from adaptive meaning making in the context of the COVID-19 pandemic. For example, it was found that emerging adults who engaged more in meaning making during the initial outbreak

experienced lower rates of depression, anxiety, and stress, as compared to those who exhibited lower levels of meaning making (Yang et al., 2021). As such, both the presence of purpose in life and engaging in meaning making have empirical support for positive outcomes, in particular within distressing contexts including the COVID-19 pandemic.

Current Studies

Meaning making theory and empirical work suggest that emerging adults with a greater sense of purpose in life may have been better equipped, psychologically, to engage in adaptive meaning making during the COVID-19 pandemic (Park & George, 2013). We tested this assertion in two studies. Guided by the meaning making framework proposed by Park and George (2013) we first conducted a cross-sectional test of associations between purpose in life and distress via meaning making and event appraisal in the fall of 2020, when students were studying remotely and when the second wave of the pandemic was emerging (Study 1). Using a different sample of university-enrolled emerging adults who were followed across the entire 2020-2021 academic year, we then tested the temporal sequencing of the model, predicting purpose in life at later points in the pandemic (peak of wave 2 and peak of wave 3) from meaning making at the start of the academic year, controlling for initial levels of distress and event appraisal. Together the two studies test the reciprocal associations outlined in the model. We derived the following hypotheses from the theoretical and empirical literatures. More precisely, we first hypothesized that a greater sense of purpose in life would predict lower levels of distress, as well as greater engagement in adaptive meaning making processes (i.e., acceptance and positive reframing), which would be, in turn, associated with lower reported distress. Second, we hypothesized that adaptive meaning making (i.e., acceptance and positive reframing) would predict the maintenance of purpose in life over time.

Study 1: Method

Participants

Participants for Study 1 were 304 undergraduate students attending a large urban Canadian university during the Fall 2020 semester. All were emerging adults (M_{age} = 21.30, *SD* = 1.72), ranging from 18 to 26 years. The sample predominantly identified as female (74.5%) and most identified as members of the ethnic majority group (64.4%; 35.6% identified as members of an ethnic minority group). Participants were relatively evenly distributed across year of study (1st year 21.2%; 2nd year 26.5%; 3rd year 29.1%; 4th year 20.6%; 5th year or above 2.6%), and most were part of the Faculty of Arts and Science (76.5%; 10.5% Faculty of Business; 9.8% Faculty of Engineering; 2.9% Faculty of Fine Arts). Subjective rating of family socioeconomic status (SES; Adler et al., 2000) was rated from 1 (*Worst off*) to 11 (*Best off*; *M* = 7.55, *SD* = 1.53).

Procedure

Participants were recruited in Fall 2020 in two ways. First, student groups were asked to promote the study on social media and through list servers. Second, the study was included in the Psychology Department's participants' pool for academic credit. Students completed the battery of questionnaires online, during October and November in the Fall 2020 academic semester. Participants recruited through student organizations received a $15 electronic gift card and had their names entered into a draw for $50 electronic gift cards. Psychology pool participants received course credit for their contribution. This study was approved by the university's research ethics committee, and participants freely provided their informed consent to participate.

Measures

Meaning Making

The Brief COPE (Carver, 1997) was used to assess which coping strategies individuals engaged to manage stress associated with the pandemic: "These items deal with ways you've coped with the stress in your life since mid-March [2020] when social distancing began". The Brief COPE has 28 items that are rated on a Likert scale ranging from 1 (*I haven't been doing this at all*) to 4 (*I've been doing this a lot*). Higher scores indicate a greater engagement with a particular coping strategy. Two subscales corresponding with meaning making (Park & George, 2013) were used in the current study. Each scale consists of two items: Acceptance ("I've been learning to live with it" and "I've been accepting the reality of the fact that it has happened"); Positive Reframing ("I've been looking for something good in what is happening" and "I've been trying to see it in a different light, to make it seem more positive"). The COPE had acceptable scale score reliability coefficients, for both the Acceptance subscale (r = .61) and the Positive Reframing subscale (r = .54).

Purpose in Life

The Purpose in Life Scale (PIL) subscale of Ryff's (2014) Scales of Psychological Well-Being was used to measure the extent to which a person feels that their life is meaningful. The PIL consists of 14 items, which includes items such as "I enjoy making plans for the future and working to make them a reality", as well as reverse scored items like "I don't have a good sense of what it is I'm trying to accomplish in life". All items are measured on a Likert-type scale ranging from 1 (*Strongly disagree*) to 6 (*Strongly agree*). Higher scores indicate a greater sense of purpose in life (α = .89).

Event Appraisal

The Centrality of Events Scale (CES; Berntsen & Rubin, 2006) measures the appraisal of a stressful or traumatic event in terms of its impact on your identity and how you attribute meaning to your personal narrative. It was amended to focus on the COVID-19 pandemic, with the question restated as "Please think back upon how the pandemic has impacted your life". This scale has 7 items that are rated on a Likert scale ranging from 1 (*Totally disagree*) to 5 (*Totally agree*), with higher scores indicating greater levels of event centrality. The CES contains items such as "This event permanently changed my life" and "I feel that this event has become a central part of my life story", among others (α = .88).

Distress

Two measures were used to assess distress. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) assesses symptoms of depression over the past two weeks. This scale contains 20 items, which are rated on a Likert scale that ranges from 0 (*Rarely or none of the time [less than 2 days]*) to 3 (*Most or all of the time [10-14 days]*), with higher scores indicating greater symptoms. The CES-D contains items such as "I had crying spells" and "I thought my life had been a failure", among others. The Generalised Anxiety Disorder scale (GAD-7; Spitzer et al., 2006) measures symptoms of anxiety over a period of the past two weeks. This scale has 7 items, rated on a Likert scale ranging from 0 (*Not at all*) to 3 (*Nearly every day*), with higher scores indicative of greater levels of anxiety. The GAD-7 includes items such as "Trouble relaxing" and "Feeling nervous, anxious or on edge", among others. The scale score reliability of the CES-D (α = .91), GAD-7 (α = .90), and their combination (α = .94) was satisfactory in this sample.

COVID Stress

In addition to several demographic variables that were incorporated as covariates (age, sex, population group minority status, SES; see Participants section for details), an objective measure of pandemic-related stress was included. A COVID stress index score was computed. It

is a composite of the following items: 1) whether the pandemic had an impact on the participant's living arrangement by precipitating an unexpected move (0 = No, I did not move/I moved but not because of COVID-19; 1 = Yes, I moved unexpectedly due to COVID-19); 2) who the participant spent time with during the first lockdown between March and May 2020 (0 = With others [e.g., parents, roommates, etc]; 1 = Alone and isolated); 3) whether the participant had a change in employment status related to the pandemic (0 = No change in employment; 1 = Change in employment or employment plan [e.g., laid off temporarily, was looking for work but stopped due to closures]); 4) if the participant was employed as an essential worker (0 = No; 1 = Yes); 5) lost income caused by the pandemic (0 = No lost income; 1 = Lost income,); 6) confirmed COVID-19 diagnosis (0 = No diagnosis; 1 = Confirmed diagnosis for self or other[s] in network); 7) COVID-19 hospitalisation (0 = No hospitalisation; 1 = Confirmed hospitalisation for self or other[s] in network); 8) COVID-19 death (0 = No death; 1 = Confirmed death of other[s] in network). Total scores were calculated and ranged from 0 to 8, with individuals with greater scores experiencing more stressors related to the COVID-19 pandemic.

Study 1: Results

All analyses were conducted using Mplus 7.3 (Muthén & Muthén, 2014) and the Maximum Likelihood Robust (MLR) estimator, which is robust to non-normality. Missing data were handled using full information maximum likelihood (FIML) procedures (Enders, 2010). The CES-D and GAD-7 measures were combined into one latent distress factor. Given that the 20-item measure of depressive symptoms (CES-D) contains both positively worded and negatively worded items, a priori correlated uniquenesses were incorporated to account for the methodological artefact associated with the negatively worded items (Marsh et al., 2010). The resulting confirmatory factor analytic measurement model had an excellent level of fit to the data ($\chi^2(71) = 92.304$, $p < .05$, RMSEA = 0.031, CFI = 0.994, TLI = 0.970). The remaining variables of interest—purpose in life, event appraisal, acceptance, and positive reframing—were included in the model as manifest variables.

From this measurement model, a cross-sectional structural equation model (SEM) was estimated, testing the association between purpose in life and distress, and the indirect associations of COVID-19 stressful event appraisal and meaning making strategies (acceptance and positive reframing). The following model-building steps were taken to obtain the final results of the study. First, only direct pathways were included, namely purpose in life, event appraisal, acceptance, and positive reframing predicting distress ($\chi^2(178) = 348.170$, $p < .001$, RMSEA = 0.056, CFI = 0.955, TLI = 0.883). Second, pathways were added between the predictor variable (purpose in life) and the potential mediators (event appraisal, acceptance, and positive reframing), with mediators being correlated with one another ($\chi^2(175) = 312.618$, $p < .001$, RMSEA = 0.051, CFI = 0.964, TLI = 0.903). Third, the indirect model pathway was included, to test whether the relation between purpose in life and distress was mediated by event appraisal, acceptance, and/or positive reframing ($\chi^2(175) = 312.618$, $p < .001$, RMSEA = 0.051, CFI = 0.964, TLI = 0.904). Fourth, covariates were added to the model, with pathways tested between age, sex, population group minority status, SES, and the COVID Stress Index (CSI) and potential mediators, namely event appraisal, acceptance, and positive reframing ($\chi^2(325) = 557.423$, $p < .001$, RMSEA = 0.048, CFI = 0.941, TLI = 0.889). Fifth, pathways were included between the previously listed covariates and the outcome variable of distress ($\chi^2(315) = 519.549$, $p < .001$, RMSEA = 0.046, CFI = 0.948, TLI = 0.899). Lastly, the previously listed covariates were correlated with one

another. This final model fit the data adequately ($\chi^2(305) = 498.275$, $p < .001$, RMSEA = 0.046, CFI = 0.951, TLI = 0.901).

Unstandardized regression coefficients showed that a 1 unit increase in purpose in life was associated with a decrease of 0.911 in distress (*SE* = 0.131, $p < .001$, β = .533); a 1 unit increase in purpose in life was associated with a 0.198 unit decrease in COVID-19 negative event appraisal (*SE* = 0.064, $p = .002$, β = .196); and a 1 unit increase in event appraisal was associated with a 0.347 unit increase in distress (*SE* = 0.085, $p < .001$, β = .225). Results also showed that a 1 unit increase in purpose in life was associated with a 0.487 unit increase in positive reframing (*SE* = 0.111, $p < .001$, β = .243), and that a 1 unit increase in positive reframing in turn was associated with a 0.181 unit decrease in distress (*SE* = 0.052, $p = .001$, β = .202). Lastly, there was no statistically significant relation between purpose in life and acceptance (*b* = .165, *SE* = 0.094, $p = .080$, β = .112), and no statistically significant association between the acceptance and distress (*b* = .010, *SE* = 0.057, $p = .863$, β = .009).

Among the covariates, only the age of participants was related to distress (*b* = .135, *SE* = 0.043, $p = .002$, β = .156), with older students experiencing more distress. No other covariate had a statistically significant association with distress in the model (sex *b* = .197, *SE* = 0.170, $p = .245$, β = .058; minority group status *b* = .201, *SE* = 0.155, $p = .195$, β = .065; SES *b* = –.074, *SE* = 0.054, $p = .171$, β = –.076; CSI *b* = .066, *SE* = 0.060, $p = .264$, β = .060). Age was also found to be related to event appraisal, with younger participants appraising the COVID-19 pandemic as more central to their personal narrative (*b* = –.118, *SE* = 0.032, $p < .001$, β = –.212). No other covariate had a statistically significant association with event appraisal in the model (sex *b* = .096, *SE* = 0.128, $p = .451$, β = .044; minority group status *b* = .024, *SE* = 0.120, $p = .841$, β = .012; SES *b* = –.009, *SE* = 0.037, $p = .804$, β = –.015; CSI *b* = .029, *SE* = 0.041, $p = .479$, β = .040). Lastly, no covariate was found to have a statistically significant relation with positive reframing (age *b* = .081, *SE* = 0.053, $p = .128$, β = .083; sex *b* = .007, *SE* = 0.225, $p = .976$, β = .002; minority group status *b* = .208, *SE* = 0.210, $p = .321$, β = .060; SES *b* = –.003, *SE* = 0.061, $p = .961$, β = –.003; CSI *b* = –.128, *SE* = 0.066, $p = .052$, β = –.102) or with acceptance (age *b* = –.048, *SE* = 0.045, $p = .289$, β = –.060; sex *b* = –.273, *SE* = 0.184, $p = .138$, β = –.087; minority group status *b* = –.027, *SE* = 0.177, $p = .881$, β = –.009; SES *b* = .038, *SE* = 0.053, $p = .472$, β = .043; CSI *b* = –.059, *SE* = 0.052, $p = .258$, β = –.057).

Finally, we observed a statistically significant indirect effect in the model (total indirect effect *b* = –.155, 95% CI [–0.227, –0.083]) of event appraisal (*b* = –.069, 95% CI [–0.117, –0.020]) and positive reframing (*b* = –.088, 95% CI [–0.142, –0.033]). However, no statistically significant indirect effect was found for acceptance on distress (*b* = .002, 95% CI [–0.014, 0.017]). As such, the relation between purpose in life and distress was partially mediated by the COVID-19 stressful event appraisal and how much one engaged in positive reframing, but not by the use of acceptance meaning making strategies. The results of the path analysis are summarized in Figure 2.1.

Study 2: Method

Participants

Participants were 863 undergraduate students attending the same large urban Canadian university. All were emerging adults in the same age range, 18-26 years (M_{age} = 21.41, *SD* = 2.02). The sample predominantly identified as female (62.5%) and most identified as members of

the ethnic majority group (63.5%; 36.5% identified as members of an ethnic minority group). Participants were enrolled across a range of years of undergraduate studies (1st year 29%; 2nd year 21.2%; 3rd year 28.5%; 4th year 16.6%; 5th year or above 4.8%) and were relatively equally distributed across faculties (27.2% Faculty of Engineering and Computer Science; 26.4% Faculty of Arts and Science; 24.9% Faculty of Business; 21.4% Faculty of Fine Arts). Subjective rating of family socioeconomic status (SES; Adler et al., 2000) was rated from 1 (*Worst off*) to 11 (*Best off*; *Median* = 7; *M* = 6.70, *SD* = 1.60).

Procedure

Participants were recruited as part of a university-wide project aimed at assessing student well-being, academic stress, and use of campus services throughout the academic year. The university planning and analysis office distributed 7,000 recruitment emails to a random sample of undergraduate students across faculties and years of study at the start of the Fall 2020 semester. All students who completed the baseline questionnaire at T1 (September 2020) were invited to complete subsequent waves, unless they requested not to be contacted for further data collection. Participants completed the battery of questionnaires online, over three time points of the 2020-2021 academic year (T1 September, T2 January, T3 April), and were financially compensated by electronic gift cards ($20 CAD for each wave). Participant retention was good, with 666 (77.2%) at T2, and 584 (67.7%) at T3. We compared participants who either completed or did not complete the T2 and T3 questionnaires on the main study variables (meaning making, purpose in life, event appraisal) and covariates (distress, age, sex, population minority group status, SES, CSI) measured at baseline and found no significant differences (Bonferroni corrected $p = .002$). This study was approved by the university's research ethics committee, and participants freely provided their informed consent to participate.

Measures

All measures used were the same as for Study 1 with the exception of the measure for purpose in life, which was assessed using a single item from the Flourishing Scale. In this study, the COPE Acceptance subscale ($r = .61$ at T1), the COPE Positive Reframing subscale ($r = .76$ at T1), CES ($\alpha = .87$ at T1; $\alpha = .93$ at T2; $\alpha = .93$ at T3), CES-D ($\alpha = .91$ at T1; $\alpha = .93$ at T2; $\alpha = .93$ at T3), GAD-7 ($\alpha = .91$ at T1; $\alpha = .92$ at T2; $\alpha = .92$ at T3), and the combination of CES-D and GAD-7 ($\alpha = .94$ at T1; $\alpha = .95$ at T2; $\alpha = .95$ at T3) all had acceptable scale score reliability coefficients. Purpose in life was measured with the one item assessing purpose in life (i.e., "I lead a purposeful and meaningful life") from the 8-item Flourishing Scale (FS; Diener et al., 2010). All items were rated using a Likert-type scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*), with a higher score indicating a greater sense of purpose in life.

Study 2: Results

Analyses were completed using Mplus 7.3 (Muthén & Muthén, 2014) using the MLR, FIML procedures to handle missing data (Enders, 2010), and the same specification as in Study 1 to combine CES-D and GAD-7 responses into a single latent distress factor. The other variables of interest—purpose in life, event appraisal, acceptance, and positive reframing—were included in the model as manifest variables. A longitudinal SEM was conducted, in a stepwise manner, across three time points: T1 corresponded to the start of the academic year, which fell between the first and second waves of the pandemic; T2 was taken at the start of the Winter semester and corresponded to the peak of the second wave of the pandemic and to a period of government-

mandated lockdowns and curfews; and T3 was taken at the end of the academic year, at the peak of the third wave.

The model tested whether meaning making at T1 (COPE A and COPE PR) predicted the maintenance of purpose in life (FS 1) at T2 and at T3, and tested possible mediations that led to the maintenance of purpose over the academic year. The subsequent model-building steps were completed to obtain the final results of the study. First, only autoregressive pathways were included, namely T1 purpose in life predicting T2 purpose, T2 purpose predicting T3 purpose, and T1 purpose in life predicting T3 purpose, as well as T1 event appraisal predicting T2 event appraisal ($\chi^2(265) = 663.114$, $p < .001$, RMSEA = 0.042, CFI = 0.966, TLI = 0.929). The variables of interest were allowed to correlate with one another within time points (e.g., T1 purpose in life with T1 acceptance, T1 positive reframing, and T1 event appraisal; T1 acceptance was correlated with T1 positive reframing, and T1 event appraisal; and T1 positive reframing was correlated with T1 event appraisal). Second, the distress variable was added in order to control for potential experiences of low well-being within the likely stressful context of the COVID-19 pandemic, thus allowing to test whether purpose in life can be maintained despite feelings of distress ($\chi^2(264) = 659.641$, $p < .001$, RMSEA = 0.042, CFI = 0.967, TLI = 0.929). Third, additional pathways were added between meaning making strategies (T1 acceptance and positive reframing) and purpose in life and event appraisal at T2 ($\chi^2(260) = 638.108$, $p < .001$, RMSEA = 0.041, CFI = 0.968, TLI = 0.931). Fourth, pathways were added from T1 acceptance and positive reframing to T3 purpose in life, as well as T2 event appraisal predicting T3 purpose in life ($\chi^2(258) = 636.980$, $p < .001$, RMSEA = 0.041, CFI = 0.968, TLI = 0.931). Fifth, the indirect model pathways were included, to test whether the relation between purpose in life at T3 and acceptance at T1, and the relation between purpose in life at T3 and positive reframing at T1 were mediated by other variables of interest, such as T2 event appraisal and/or T2 purpose in life ($\chi^2(258) = 636.980$, $p < .001$, RMSEA = 0.041, CFI = 0.968, TLI = 0.931). Lastly, covariates were added to the model, with pathways tested between age, sex, population group minority status, SES, and the T1 COVID Stress Index (CSI) and T3 purpose in life, with the final model fitting the data adequately ($\chi^2(398) = 988.903$, $p < .001$, RMSEA = 0.041, CFI = 0.952, TLI = 0.915).

Overall, significant pathways were present with the meaning making strategies of acceptance and positive reframing at T1 predicting purpose in life at T2. Specifically, unstandardized regression coefficients for the mediation model showed that the autoregressive paths indicated that COVID-19 stressful event appraisal at T1 positively predicted event appraisal at T2 ($b = .769$, $SE = 0.039$, $p < .001$, $\beta = .607$), while purpose in life at T1 (i.e., global meaning) positively predicted purpose in life at T2 ($b = .524$, $SE = 0.034$, $p < .001$, $\beta = .546$) and T3 ($b = .268$, $SE = 0.052$, $p < .001$, $\beta = .277$), and purpose at T2 positively predicted purpose at T3 ($b = .421$, $SE = 0.048$, $p < .001$, $\beta = .417$). Additionally, results showed that a 1 unit increase in positive reframing at T1 resulted in a 0.053 unit increase in COVID-19 event appraisal at T2 ($SE = 0.021$, $p = .011$, $\beta = .082$). Moreover, results showed that a 1 unit increase in positive reframing at T1 predicted a 0.062 unit increase in purpose in life at T2 ($SE = 0.031$, $p = .047$, $\beta = .071$), and that a 1 unit increase in acceptance resulted in a 0.097 unit increase in purpose in life at T2 ($SE = 0.039$, $p = .012$, $\beta = .086$). Lastly, there was no statistically significant relation between T1 positive reframing and T3 purpose in life ($b = .005$, $SE = 0.031$, $p = .867$, $\beta = .006$) and T1 acceptance to T3 purpose ($b = –.061$, $SE = 0.037$, $p = .101$, $\beta = –.054$), no statistically significant association between acceptance at T1 and event appraisal at T2 ($b = .007$, $SE = 0.027$, $p = .809$, $\beta = .008$), and no statistically significant link between event appraisal at T2 and purpose in life at

T3 (b = –.078, SE = 0.046, p = .088, β = –.058). No covariates added to the model had a statistically significant effect on purpose in life at T3 (distress b = –.125, SE = 0.076, p = .101, β = –.084; age b = –.032, SE = 0.026, p = .229, β = –.043; sex b = .107, SE = 0.103, p = .301, β = .035; population minority group status b = –.024, SE = 0.097, p = .805, β = –.008; SES b = .035, SE = 0.035, p = .316, β = .038; CSI b = .026, SE = 0.030, p = .379, β = .024).

We observed a statistically significant indirect effect (total indirect effect b = .040, 95% CI [0.014, 0.067]) of acceptance at T1 on purpose at T3 via purpose at T2 (b = .041, 95% CI [0.014, 0.068]). However, no effect was found for positive reframing at T1 on purpose at T3 via purpose at T2 (total indirect effect b = .022, 95% CI [–0.001, 0.045]). As such, meaning making via acceptance helped maintain a sense of purpose in life across time in the midst of pandemic-related stressors (e.g., lockdowns), whereas meaning making via positive reframing did not have the same longer-term effects. The results are summarized in Figure 2.2.

Discussion

In two studies Park and Folkman's (1997) meaning making model guided tests of concurrent and prospective associations of purpose in life and meaning making in two samples of university-enrolled emerging adults during the COVID-19 pandemic. Study 1 tested the first half of the Park and Folkman's (1997) model, where we assessed indirect associations of purpose in life (global meaning) and distress via event appraisal and meaning making (i.e., positive reframing and acceptance). Data was collected in fall 2020 after the first wave of the pandemic had subsided and the second wave was emerging, which resulted in more stringent social distancing and lockdown orders from the local government. The results of Study 1 indicated that higher current levels of distress were associated with lower levels of purpose in life. Tests of indirect associations showed that having a greater sense of purpose in life at this point in the pandemic was associated with an appraisal of the pandemic as being less central to one's life, with participants in turn reporting fewer symptoms of distress. Similarly, purpose in life was associated with engaging in meaning making via positive reframing, and in turn fewer symptoms of distress. These results provide support for the meaning making model: Appraising an event as impacting one's life can lead to feelings of distress and engaging in meaning making strategies, such as positive reframing, can lower distress in the context of a stressful event. Moreover, our results support the theoretical assertion that global meaning, in this case purpose in in life, orients appraisals and meaning making processes.

In Study 2 the reciprocal aspect of Park and Folkman's (1997) model was tested in a separate sample of university-enrolled emerging adults. In the model, adaptive meaning making is proposed to further support and maintain purpose in life. Data for Study 2 were likewise collected under remote learning conditions imposed due to COVID-19-related health regulations. Participants in this sample were recruited at the start of the Fall 2020 academic year (T1), after the first wave of the pandemic had subsided and before the second wave emerged. They were then re-assessed at the start of the Winter 2020 semester, at the peak of the second wave (when lockdowns and curfews were put in place; T2). Finally, they completed a third assessment at the end of the academic year, during the peak of the third wave (T3). Meaning making was measured at T1 and purpose in life was measured at all three time points. Greater use of acceptance and positive reframing predicted increases in purpose in life from September 2020 to January 2021 and changes in purpose in life at T2 mediated the relation between acceptance-based meaning

making at T1 and the maintenance of purpose in life at T3. This mediational effect was not present for positive reframing.

Taken together, across the two studies, there are several joint implications that we can generate that support the reciprocal nature of Park and Folkman's (1997) model. For instance, a sense of purpose in life can have concurrent protective effects during times of stress, including stress derived from an unprecedented period, like a global pandemic. These results aligned with the proposed meaning making framework, as delineated by Park and colleagues (Park, 2010; Park & Folkman, 1997), as well the research literature on the positive effects of purpose in life (e.g., McKnight & Kashdan, 2009). Specifically, the findings indicated that purpose in life was associated with greater psychological well-being, in terms of lower levels of distress, which has been supported in a number of studies, including an epidemiological study of 12,998 participants followed for four years (Kim et al., 2022).

In the short-term, appraisal and positive reframing of a stressful event is important for the maintenance of well-being and global meaning. Indeed, appraising a distressing event as more central to one's sense of identity had been associated with greater levels of depression and anxiety—an association that has been found for depression and other disorders such as PTSD, as well as worse physical health outcomes (Boals, 2010). Appraising events as central to the self compromised well-being (Study 1) and purpose (Study 2) but reframing an event positively enhanced well-being (Study 1) and purpose (Study 2). Additionally, in the longer-term, acceptance promoted the maintenance of purpose in life when periods of stress re-emerged (Study 2). Our results align with those of other studies. Several studies have indicated that acceptance is less effective at diminishing feelings of distress in the short-term (e.g., In et al., 2021), as we found in Study 1. On the other hand, corresponding with Study 2 results, it appears that acceptance, more so than positive reframing, can maintain its positive effects over time. Two studies comparing these reframing and acceptance strategies—one utilising an experimental design (Troy et al., 2018) and one using functional magnetic resonance imaging (fMRI; Goldin et al., 2019)—suggested that, while positive reframing may be more effective at decreasing negative affect in the short-term, it also requires a greater effort and carries a heavier cognitive load, while acceptance may be an easier strategy to implement. Our results suggest that acceptance may also be important for the maintenance of global meaning in the context of ongoing and recurring stressful experiences. Because it necessitates less effort, it may be easier to maintain long-term. Although not tested directly in the current study, other research suggests that reframing and acceptance work together to support well-being. One study comparing acceptance and reframing strategies, through the lens of dialectical behaviour therapy (DBT), found that learning to use acceptance improved the use of reframing, thus facilitating coping in the face of distressing events (Segal et al., 2023). Further testing the differential and reciprocal effects of these two meaning making strategies may be an interesting avenue for future research testing the meaning making model.

Lastly, while the majority of covariates across the two studies were not found to be associated with the variables of interest, age was found to be a significant predictor in Study 1. First, younger emerging adult participants reportedly appraised the COVID-19 pandemic as more disruptive to their identity. Indeed, this replicated previous studies that have made use of the CES, which have found that younger individuals are more likely to appraise a stressful event as central to their sense of self (e.g., Boals et al., 2012). An intriguing further path for investigating the Park and Folkman (1997) meaning making model would be to test age differences for event appraisal, and its potential downstream effects. Second, older emerging adults were noted to report greater levels of distress in Study 1. This result was contrary to other studies conducted on

the topic of well-being during the COVID-19 pandemic, which indicate fewer symptoms of distress in older participants, in comparison to younger ones (e.g., Best et al., 2023), as well as differences in reported psychological distress among emerging adult age groups in general, with younger emerging adults reporting greater distress (e.g., 18 to 24 vs. 25 to 31 years; Johansen et al., 2021). Replication of the current cross-sectional design would be warranted, to verify whether this is a possible trend among emerging adults during the pandemic or simply a cohort effect.

Limitations and Future Directions

Despite the strength of the combined set of studies to test the reciprocal associations outlined Park and Folkman's (1997) model, certain methodological limitations should be noted. For instance, we used a single-item measure of purpose in life for Study 2 (i.e., item 1 of the Flourishing Scale), which is not indicated in Park and George's (2013) suggested list of questionnaires to test the meaning making model. Nonetheless, this item has content validity and single-item measures have been shown to be methodologically sound (e.g., Fisher et al., 2016; Matthews et al., 2022), such as the use of the Satisfaction With Life Scale (SWLS; Cheung & Lucas, 2014) and the measure of self-rated mental health (SRMH; Ahmad et al., 2014). Otherwise, the core measures used (CES, PIL, COPE) were ones recommended by Park and George (2013) as appropriate tools to assess the meaning making model, and thus align with the underlying theory. Additionally, a more holistic approach to measuring global meaning—one that incorporates global beliefs and goals as well as purpose in life—may further help provide empirical support for the meaning making model. As such, future testing of the model could incorporate all three of these aspects of global meaning. Relatedly, a methodological limitation to be noted is that, to maximize power despite our limited sample size, we could not rely on analyses based on fully latent variables, but rather had to rely on scale scores for most of our variables. This decision may have resulted in a slight underestimation of the size of the associations found between our constructs, although the high scale score reliability of our variables limits this risk substantially.

Another limitation concerns an association between appraisal and positive reframing in Study 2, specifically that engaging in positive reframing at T1 predicted increases in appraising an event as central to one's identity at T2. We expected the effect to be the opposite, with greater positive reframing predicting the event to be appraised as less central to oneself, given event appraisal's association with negative mental health outcomes (Boals, 2010). However, the measure used to assess this variable—the Centrality of Events Scale (CES; Berntsen & Rubin, 2006)—has been shown to behave in paradoxical ways before, with one study finding that it was positively associated with two seemingly diametrically opposite phenomena: posttraumatic distress and posttraumatic growth (Groleau et al., 2013). The authors suggested that the paradox may be explained by participants coding centrality in two differing manners, either as positive or negative. Indeed, the items of the CES have no specific valence attached to them and are thus up to the participant's interpretation. The association we found could therefore be due to a methodological quirk that may be eliminated with the use of a different measure. Nonetheless, replication and further investigation of this finding would be needed, to gain understanding of this measure and the variable it is meant to assess, both within the context Park and Folkman's (1997) meaning making model and the well-being research area.

We must also recognise the inherent specificity of the samples tested, namely emerging adults who were attending university under remote learning guidelines, as well as the *zeitgeist* (the first year of the COVID-19 pandemic) and location, that being a large urban city in the Canadian province that experienced the most deaths in the first wave of the pandemic and that responded with the strictest public health measures in the country (e.g., curfew). Although the

aim of the study was, in part, to determine whether Park and Folkman's (1997) model would generalize to this unprecedented context, the results may not generalize to all COVID-19 settings. Public health policy regulations concerning the coronavirus pandemic varied greatly across cities, provinces, and countries, as well as across time. For instance, the second wave of the COVID-19 pandemic in Canada began between at T1 (September 2020; Statistics Canada, 2022b), and Quebec implemented a curfew at T2 (January 2021; Institut national de santé publique du Québec, 2022). As such, our results may not generalise to locales outside of Canada and in the face of alternative stressors that may vary in terms of duration, levels of uncertainty, judicial rigidity, personal agency, and so forth. However, these studies may be used as a blueprint to test the meaning making model in the context of other long-term global upheavals that will likely affect well-being and health, such as climate change (World Health Organization, 2021). Furthermore, they present encouraging results for the development of interventions aimed at emerging adults facing stressful events, such as ones that target bolstering a person's sense of purpose in life (Feldman & Dreher, 2012). Existing therapeutic treatments that promote the use of acceptance and positive reframing, such as DBT (Linehan, 2014), may also be used to test the meaning making model in intervention studies, to test their effects on the maintenance of global meaning in the face of various stressors. Indeed, targeting such assets as purpose in life and adaptive meaning making in prevention and intervention programs may be more beneficial given that they function at the individual level, and thus more prone to modification, as opposed to resource factors (e.g., social support) that are more difficult to alter (O'Sullivan et al., 2019).

Conclusion

Our findings provide support for the reciprocal aspects of the meaning making model developed by Park and colleagues (Park, 2010; Park & Folkman, 1997), with adaptive meaning making via positive reframing and acceptance being helpful in protecting well-being and maintaining purpose in life during stressful events. Given that distressing events are an inevitable part of life, and are likely to continue manifesting on a global level (Ipsos, 2023), it is important for individuals to develop personal assets that may carry them through such times, for instance a strong sense of purpose in life and the ability to make use of adaptive meaning making strategies such as positive reframing and acceptance. It is our hope that these, along with community action and support, can take us beyond surviving during times of distress, to a model of thriving despite of it.

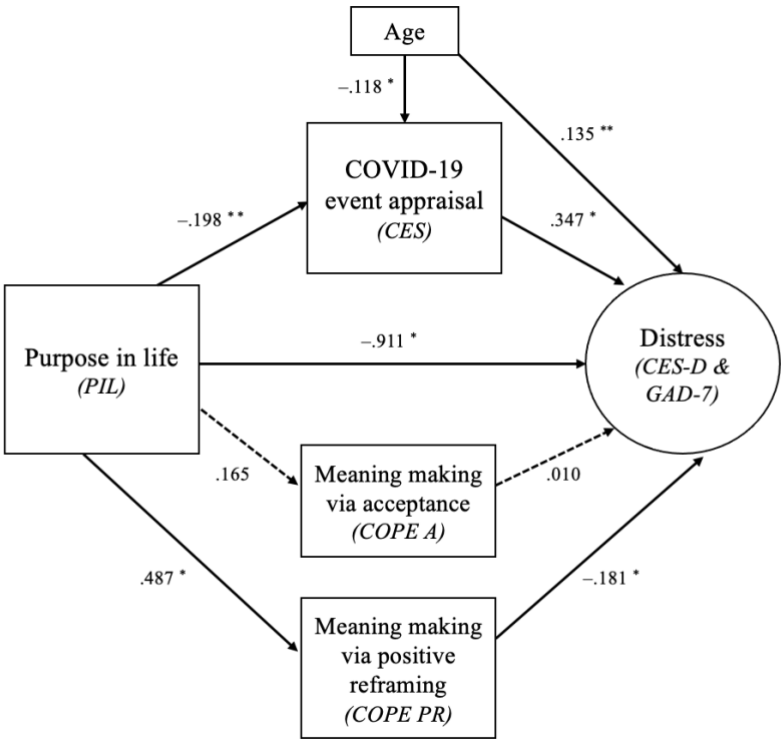

Figure 2.1. Structural equation model (SEM) of purpose in life predicting distress, mediated by COVID-19 event appraisal and meaning making via acceptance and positive reframing. Event appraisal and positive reframing on distress show statistical significance, while acceptance on distress does not. Results of analyses of the indirect effects of event appraisal and positive reframing on distress were statistically significant. Only statistically significant covariate pathways indicated. $^{*}p < .001$ $^{**}p < .05$

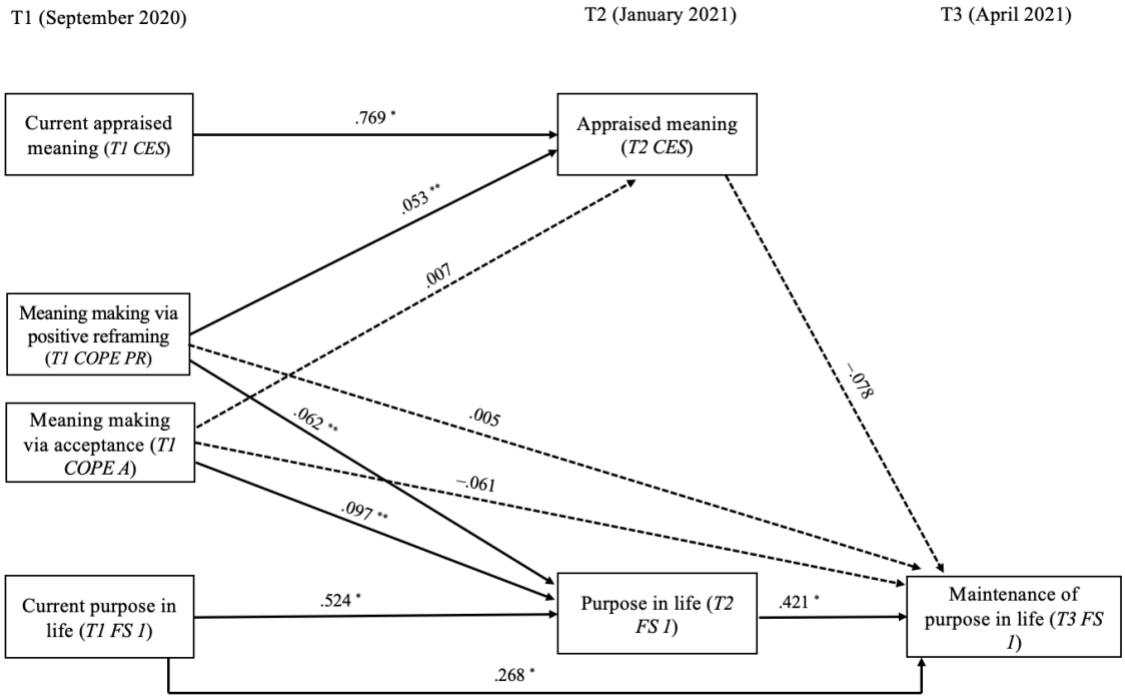

Figure 2.2. Structural equation model (SEM) of meaning making strategies (acceptance and positive reframing) and COVID-19 event appraisal predicting the maintenance of purpose in life across three time points (September 2020 to April 2021). Purpose in life at T2 mediated the relation between acceptance at T1 maintaining purpose at T3. No covariate was found to have a statistically significant effect on variables of interest. $^{*}p < .001$ $^{**}p < .05$

Table 2.1

Means, Standard Deviations, and Intercorrelations Among Study 1 Variables

	M	*SD*	1.	2.	3.	4.	5.	6.
1. PIL	4.24	0.87		–.20**	.12**	.25**	–.57**	–.37**
2. CES	3.12	0.96			.08	.10	.34**	.35**
3. COPE A	6.43	1.37				.21**	–.01	–.04
4. COPE PR	5.22	1.66					–.17**	–.09
5. CES-D	1.17	0.58						.77**
6. GAD	1.23	0.80						

*$p < .05$; **$p < .01$.

Note. PIL = Purpose in life; CES = Centrality of events (i.e., event appraisal); COPE A = Acceptance; COPE PR = Positive reframing; CES-D = Depression symptoms; GAD = Anxiety symptoms. Ranges for the measures were as follows: Purpose in life 1 to 6, centrality of events 1 to 5, acceptance and positive reframing 1 to 4, depression 0 to 3, anxiety 0 to 3. Pearson Correlation data presented for all variables.

Table 2.2

Means, Standard Deviations, and Intercorrelations Among Study 2 Variables

	M	*SD*	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
PIL T1	4.80	1.53		–.04	–.00	.21**	–.47**	–.26**	.56**	–.06	.58**	–.06
CES T1	3.17	0.86			.03	.18**	.32**	.35**	–.05	.63**	–.03	.59**
COPE A T1	6.54	1.30				.28**	–.01	.03	.11**	.06	.01	.11**
COPE PR T1	5.09	1.69					–.08**	–.03	.20**	.19**	.15**	.19**
CES-D T1	0.94	0.57						.73**	–.41**	.21**	–.36**	.32**
GAD T1	1.03	0.79							–.23**	.25**	–.18**	.32**
PIL T2	4.75	1.47								–.05	.62**	–.08*
CES T2	3.12	1.09									–.07	.73**
PIL T3	4.75	1.47										–.13**
CES T3	3.17	1.10										

*$p < .05$; **$p < .01$.

Note. PIL = Purpose in life; CES = Centrality of events (i.e., event appraisal); COPE A = Acceptance; COPE PR = Positive reframing; CES-D = Depression symptoms; GAD = Anxiety symptoms; T1-T3: Time 1 to Time 3. Ranges for the measures were as follows: Purpose in life 1 to 6, centrality of events 1 to 5, acceptance and positive reframing 1 to 4, depression 0 to 3, anxiety 0 to 3. Pearson Correlation data presented for all variables.

CHAPTER 5:
GENERAL DISCUSSION

There is arguably a limit to the control that human beings can exert on their environment, experiences, and future, even when taking into account the circumstances of one's birth and upbringing. As such, having resources—such as certain personality factors and supportive interpersonal relationships—can be a differentiating feature between individuals who are resilient and those who struggle (Masten et al., 2008). Purpose in life has been proposed to be one such factor that may bolster resilience, given its association with lower levels of stress and increased satisfaction with life (McKnight & Kashdan, 2009). A number of clinicians, researchers, and philosophers advocated that purpose in life shields individuals against emotional distress, in particular during periods of difficulty that lie outside of our control (e.g., Frankl, 1959; Nietzsche, 1889/1997). As such, it has been proposed that, as compared to experiencing life with a low sense of purpose, purposeful living can facilitate long-term benefits (McKnight & Kashdan, 2009), for areas such as mental health (e.g., Boreham & Schutte, 2023), physical health (e.g., Kim et al., 2022), and general well-being (e.g., Bronk et al., 2009). However, while research on this topic has grown exponentially over the past three-to-four decades (Kashdan et al., 2023), there is still much for us to learn about how purpose in life may benefit individuals, its mechanisms, and how it may be maintained over time. As such, the aim of this thesis was to broaden our understanding of these elements, to advance future research in this area, and encourage the development of interventions that may cultivate, increase, and sustain purpose in life across the lifespan.

First, the benefits of purpose in life were examined within a potentially challenging transitional developmental period: The entry into the labour market following postsecondary education. Using longitudinal multilevel modeling, it was found that emerging adults who reported having a greater sense of purpose in life prior to employment experienced greater satisfaction with their work situation across the year following graduation. Moreover, throughout the year, during times of greater purpose in life participants also reported greater employment satisfaction. In addition to trying to find purpose in their lives, at times of greater reported social support, emerging adults experienced greater satisfaction with their employment situation. However, having greater perceived social support prior to the foray into the workforce did not have a significant impact on employment satisfaction over the following year. Consequently, it appears that having social support during this potentially difficult period is beneficial, rather than the level of support one has beforehand. Meanwhile, given that the presence of purpose in life both prior to and following graduation predicted greater employment satisfaction, we may want to encourage the development of this asset before individuals first enter the labour market.

Second, the mechanisms of actions of purpose in life were examined during a global health crisis, namely the COVID-19 pandemic. With a cross-sectional dataset of emerging adults attending a large urban university, it was found that purpose in life was related to lower rates of distress. This association was influenced by engaging in a meaning making strategy (i.e., positive reframing) that was linked to lower symptoms of psychological distress, and by appraising the stressful event as less central to one's identity. Another meaning making strategy—acceptance—was not found to have a significant effect on this relation. Accordingly, individuals with a strong sense of purpose in life may make use of helpful strategies that bolster adaptive meaning making and decrease identifying with the stressor, in the face of a stressful event, and in turn this protects their well-being.

Third, emerging adults pursuing undergraduate studies during the COVID-19 pandemic were recruited and followed across the academic year, to examine how purpose in life is

maintained across a prolonged period of stress (i.e., remote learning, public health-mandated lockdown and curfew). Further support was found for the way purpose in life may function to benefit well-being, as engaging in adaptive meaning making strategies (positive reframing, acceptance) at the outset of the remote learning year predicted greater purpose in life later in the academic year, at the peak of the second wave of the pandemic when public health restrictions were the most stringent. Additionally, increases in purpose in life across the Fall semester mediated the association between acceptance-based meaning at the start of the year and the maintenance of purpose in life to the end of the academic year. Contrary to acceptance, no such mediation effects were found for positive reframing, creating intriguing pathways for future research on the differential effects of these two adaptive meaning making strategies. Indeed, some studies have already done so (Goldin et al., 2019; Troy et al., 2018), proposing that positive reframing may be more efficient at decreasing negative affect in the short-term, but not in the long-run because it carries a heavier cognitive load and therefore is more effortful. In comparison, acceptance may be an easier strategy to implement and can be carried through over time, such as—in the findings of study 3—during longer periods of uncertainty.

To summarise, taken together, the results of the three studies described here contribute to the research literature concerning the benefits of purpose in life. Specifically, study 2 replicated the findings concerning the favourable effect that a sense of purpose has on a lower incidence of distress (e.g., Wood & Joseph, 2010). All three studies have provided added support for the relation between purpose in life and well-being (e.g., Bronk et al., 2009); for instance, its association with greater employment satisfaction (study 1), and the use of adaptive strategies such as acceptance, positive reframing, and adaptive event appraisal (studies 2 and 3). While some researchers have suggested that the majority of emerging adults have not yet obtained a full sense of purpose (e.g., Damon, 2008; Moran, 2009), the current studies have found that those who have can certainly benefit greatly from it, in particular during potentially challenging transitions (study 1) and when faced with major stressors (studies 2 and 3). Therefore, individuals in earlier life stages (adolescence, early emerging adulthood) should be encouraged to develop a sense of purpose, given the numerous benefits associated with it. Furthermore, the current studies add new developments to this area of study, in particular concerning the mechanisms and maintenance of purpose. Namely, purpose in life was associated with adaptive coping strategies when experiencing a stressful context (i.e., COVID-19), with participants with greater purpose managing to appraise the stressor as less central to their personal narrative (study 2), engage in positive reframing (study 2), and practice acceptance (study 3). Additionally, the meaning making strategy of acceptance contributed to the maintenance of purpose in life over time, even in the face of more stringent public health guidelines (study 3). Thus, these studies provide robust support for the advantageous effects of having a sense of purpose in life, clarity on aspects of its mechanisms, and indicators of its maintenance over time—all of these within the context of potentially stressful transitions and situations (i.e., from studies to work, during a health crisis).

Implications for Research on Purpose in Life

The results of the research presented in this thesis have implications for a number of different areas, including the positive psychology research literature, employment and organisational psychology, developmental research—in particular concerning emerging adulthood—as well as the study of purpose in life. A sense of purpose in life has long been proposed to have great value for human beings, since the time of Aristotle (Ryff, 2014), via 19th century philosophers (Nietzsche, 1889/1997) and 20th century psychiatrists (Frankl, 1959), to the researchers of today (e.g., Damon & Malin, 2020). The findings described here support what has already been established by a number of researchers, and is explored upon below.

One key finding is that greater purpose in life is related to lower rates of distress, as seen by fewer symptoms of depression and anxiety, which had been previously noted in a meta-analysis (Boreham & Schutte, 2023). While those authors suggested that this may be due to a lesser likelihood of engaging in avoidance, the current findings associated this relation to greater use of adaptive strategies, such as positive reframing of a stressor and/or acceptance of a difficult situation, and not appraising it as central to one's life. Of course, these are not mutually exclusive pathways, and as such could be investigated in tandem, to further our understanding of the mechanisms that make purpose in life a beneficial asset to have. For instance, would greater purpose in life lead to lower avoidance, and as such the opportunity to reframe a difficult situation, or learn to accept it? Or would lower avoidance and meaning making strategies such as acceptance and/or positive reframing happen in tandem, as facilitated by a sense of purpose? The findings of the current studies suggest that positive reframing and acceptance are associated with purpose in life and may be engaged at different times, for instance in the short-term for positive reframing (study 2), and in the long-term for acceptance (study 3). Some cross-sectional studies (e.g., Ferreira et al., 2021; Guszkowska et al., 2022) have found opposing effects for the three aforementioned coping strategies—avoidance, acceptance, and positive reframing—including during the COVID-19 pandemic, with worse outcomes associated with avoidance (e.g., depression, anxiety, stress) but not the latter two coping strategies, which were linked to more positive outcomes. However, more longitudinal studies that investigate the directionality of effects—in line with the approach used for study 3—may be useful, as well as qualitative interview approaches to obtain richness of personal experience.

The current research adds to the growing discourse indicating that purpose in life is related to and can impact one's well-being (Bronk et al., 2009; Pfund et al., 2020). However, while there is some support for the positive relation between purpose in life and employment-related satisfaction (Tatlıcıoğlu et al., 2024), there is still much to learn, specifically regarding how it may support emerging adults during a critical transitional period, namely the first entry into the workforce following university studies. It is particularly important to understand what factors may aid emerging adults during this time. Firstly, because the traits and assets that individuals develop in emerging adulthood may impact their social investment—investment in the social roles related to work, family, and community (Roberts & Mroczek, 2008). Indeed, as seen in study 1, individuals with greater purpose in life, both prior and during the navigation of the workforce, were more likely to be satisfied with their employment situation, thus likely bolstering their investment in this social role. It has been suggested that the reverse may also be possible, given that social investment is part of the driving force behind changes in personality traits, which commonly characterise this developmental period (Roberts & Mroczek, 2008). Others have put forth that emerging adulthood, and specifically postsecondary studies, is a time of inherent purpose exploration and determination (Pfund et al., 2020). Future research could therefore examine a potential feedback loop between developing purpose in life and social investment: Purpose in life encourages social investment in key developmental roles related to work, partnerships, and community, which bolster purpose, which bolsters investment, and so on and so forth.

Secondly, understanding how to support emerging adults during this transition is also important given that early experiences in the labour market can have lasting downstream effects that trickle into later adulthood, in terms of other developmental tasks, as well as future work and finances (Domene et al., 2015; ESDC, 2022; Krahn et al., 2015). Thirdly, it is important to keep in mind that the opportunity that one may have to move from childhood roles to adult ones is

influenced not only by personal characteristics, but also by global and national economies, as well as discreet historical events (Cohen et al., 2003), such as a global health event.

The COVID-19 pandemic has had an effect on individuals of all ages, including emerging adults. In particular, it has been noted that a number of developmental tasks during this life period have been threatened, for instance peer relations (Recksiedler & Landberg, 2021), the evolution of the child-parent dynamic (del Carmen García-Mendoza et al., 2024), academic progress (Son et al., 2020), and financial security (Halliburton et al., 2021). Nonetheless, the current studies indicate that—even in the face of such challenges—emerging adults can make use of strengths and strategies that protect their well-being, such as tapping into their sense of purpose and using adaptive meaning making strategies. Specifically, those individuals who reported having a greater sense of purpose in life were more likely to practice positive reframing, acceptance, and adaptive appraisal of a stressor as less central to one's identity, and therefore experiencing lower levels of distress. Furthermore, emerging adults with greater purpose in life, when making use of acceptance strategies, were able to maintain their level of purpose despite worsening public health conditions (e.g., increased infection rates, lockdown, curfew). Consequently, purpose in life may not only be beneficial during times of transition from studies to work (study 1), but also during other developmental tasks that are inherent to pursuing postsecondary education (e.g., academic progress, peer relations; studies 2 and 3).

Of note, while study 1 investigated the benefits of social support during a potentially challenging transition, studies 2 and 3 did not include this variable. However, given provincial guidelines, social isolation was a reality for many individuals, and as such there was likely a limit to whether one could make use of this resource. Social isolation during the coronavirus pandemic has had a negative impact across all age groups, including emerging adults pursuing university studies, with associations found between social isolating and the presence of depressive symptoms (Giovenco et al., 2022). Despite the presence of social isolation, participants in studies 2 and 3 were able to make use of assets—such as purpose in life—that may have protected them from its negative effects. An alternative interpretation would be that emerging adults compensated for the lack of a resource (i.e., social support) by relying on an asset (i.e., purpose in life). Future research could elaborate on these possible mechanisms, in particular during periods where the resources we rely on are absent or scarce, and how purpose in life functions and is maintained at this time. After all, providing individuals with tools that increase their odds in an, at times, unfair world, by helping them find, cultivate, and maintain purpose in life, may be a worthwhile endeavour. On this note, we turn towards implications that the current research has for purpose-related interventions.

Implications for Purpose in Life Interventions

As with all characteristics and assets, individual differences exist in whether an individual has a sense of purpose in life or not. Unfortunately, a number of factors can delay or even prevent its development. Indeed, some researchers have noted that this can occur due to elements that are outside of a person's control, for example an economic crisis that can affect employment (Luna et al., 2014), a global pandemic, or an uncertain climate future (Burrow & Hill, 2020). Despite potential obstacles present in one's environment, there are a number of ways that individuals can initiate, grow, and maintain purpose in life. Together the current studies provided support for the adaptive value of maintaining trait-like purpose in life, which can be achieved via adaptive strategies such as meaning making—specifically, positive reframing and acceptance—and appraising an event in a way that is less disruptive to one's identity. These strategies, as well as others, can be bolstered through individual or group psychotherapy. Indeed, research has been conducted on how the presence of purpose in life can be beneficial for psychological treatment.

For instance, one group of researchers studying whether purpose in life can lead to better therapy outcomes found that it mediated the association between the therapeutic relationship and psychotherapeutic outcome (Fortems et al., 2022). The authors suggested that this construct was therefore likely to play a key role in person-centred and existential orientations of psychotherapy. Other researchers have put forth that the search for purpose in life is a common catalyst and aspiration for the initial pursuit of psychological services (Chevance et al., 2020).

In terms of utilising psychotherapy to identity, develop, and maintain purpose in life, there are a number of existing evidence-based approaches that may be helpful. Acceptance and commitment therapy (ACT) is a third-wave cognitive-behavioural approach that incorporates an exploration of the patient's values and encourages values-based living (Harris, 2019). While, as previously mentioned, purpose in life and values are not to be conflated, they are nonetheless related constructs and may facilitate one another, with values leading to a greater sense of purpose if one finds purpose-related goals to strive for, and purpose potentially strengthening one's values (Kashdan et al., 2023). Dialectical behaviour therapy (DBT), another third-wave orientation, encourages patients to seek a life worth living, despite experiencing severe emotional distress (Linehan et al., 1983). By discussing the concept of purpose in life, supporting the exploration and testing of different activities related to a possible sense of purpose, and encouraging patients to reformulate their lives as purposeful, mental health professionals may be tapping into "a life worth living". Lastly, existential psychotherapy (e.g., van Deurzen & Adams, 2016), while requiring further rigorous study (e.g., via randomized controlled trials and meta-analyses), may be an especially helpful approach to find and cultivate one's sense of purpose in life, given its philosophical inclinations.

Alternatively to psychotherapy—which can be hard to access, in particular for marginalised populations (Faber et al., 2023)—one could consider mentorship as a viable way to nurture one's sense of purpose in life. Mentorship closely relates to one of the proposed routes to developing purpose, namely via social learning (Kashdan & McKnight, 2009). Mentoring can facilitate the development of purpose in life through several theorised related pathways: 1) Seeking advice and counsel to better understand what you are passionate about, 2) Seeing your mentor as a model of who you want to be (i.e., a possible self), 3) Having access to experiences and opportunities thanks to your mentor (Hurd et al., 2014). Assessing a sample of emerging adults, a group of researchers found that purpose in life—along with perceived coping—mediated the relation between mentor presence and internalising behaviours and experiences, including depressive and anxiety symptoms, as well as alcohol and cannabis use (Hurd et al., 2014). Unfortunately, the authors found that their emerging adult sample had few self-reported mentorship relationships, in comparison to this dynamic being more prevalent among children and teenagers (Hurd et al., 2014). As such, postsecondary institutions provide a good environment and opportunities to facilitate the creation of mentor-mentee relationships. Indeed, examples of such projects are already in place in certain universities and have shown to be beneficial (e.g., Haeger & Fresquez, 2016).

Programs that facilitate extracurricular activity participation may be another viable alternative, given that such endeavours are often present on campus and have been found to enhance identity development (Villemaire-Krajden & Barker, 2024). Indeed, extracurricular activities combine the social learning and proactive pathways to purpose, by creating "third places" where emerging adults can explore activities other than school work and engage with one another, thus increasing a sense of belonging and community (Thompson & Kent, 2013). The advantages of such extracurricular and mentorship-promoting programs are that they are likely easier to put into place, in comparison to larger-scale changes that have the potential promote

purpose in life. The latter would require overhauls of long-standing practices in secondary and postsecondary settings that could be challenging to achieve. Moreover, while institutions that provide additional scaffolding, in particular in regards to vocational pursuit, exist in a number of countries outside of North America (e.g., Finland), often this support begins earlier on (e.g., in high school), as such providing a potential sense of purpose sooner (Bundick & Tirri, 2014). A multicultural review of how countries support youth in finding and enhancing purpose in life indicated that institutional-level interventions are possible (Damon & Malin, 2020), likely with long-term planning, financial support, and policy changes.

Limitations and Future Directions

Despite the numerous strengths of the research presented in the current doctoral thesis, we must make note of several limitations present in all three studies. First, while the emerging adults recruited for all three studies were facing potentially challenging circumstances—such as the search for and preservation of employment and a global public health crisis—a proportion of them may have been better equipped to face these difficulties than other populations. Specifically, participants in all three studies were, on average, relatively well-off in terms of their socioeconomic status (SES), which may impact their ability to tap into and sustain a sense of purpose in life. Notably, it has been argued that a lack of such socioeconomic advantages and the presence of marginalization may mean that one is less likely to benefit from purpose in life (Shiba et al., 2021; Sumner et al., 2018). Conversely, privileges such as higher SES and being part of a majority group that does not experience discrimination may permit individuals access to resources, allowing them to more easily engage in purpose exploration (Renninger & Hidi, 2020). Research into this matter shows conflicting evidence, with some finding that higher SES is related to greater baseline levels of purpose in life, and as such lower mortality risk (Shiba et al., 2021), while others did not find a difference in benefits befitted to purpose in life presence between individuals who had higher vs. lower resources (Bronk et al., 2020; Nayman et al., 2019). Therefore, more research is necessary that includes diverse samples of participants in order to clarify whether SES and marginalization may affect the beneficial outcomes attributed to purpose in life, and if so, how these may be remedied, whether at the individual, community, or policy level.

Second, another possible limitation includes methodological concerns, specifically the measure used to assess purpose in life. While Ryff's PIL subscale (2014) is the most widely used measure of purpose, some have put forth the argument that it "has questionable reliability and lacks differentiation from well-being constructs" (Kashdan et al., 2023, p. 6). For instance, several studies have found that Ryff's (2014) purpose in life subscale is highly correlated with other psychological well-being constructs, such as self-acceptance (r = .87 to .98), environmental mastery (r = .76 to .96), and personal growth (r = .83 to .94; Herd et al., 2014; Springer & Hauser, 2006). Nonetheless, in an article (Park & George, 2013) delineating proposed measures to investigate the meaning making model and global meaning—of which purpose in life is stated to be a part of—Ryff's (2014) scale is listed as a suggested tool. While it is advised not to use the three-item version of the measure, the 14- and 9-item versions are described as having solid empirical support for their reliability, validity, and factor structure (Park & George, 2013). Future researchers may want to use alternative questionnaires measuring purpose in life to replicate the current findings, such as the Brief Purpose in Life Measure (Hill et al., 2016) or the Life Regard Index-Revised (Debats, 1998). Furthermore, by including measures that assess an individual's goals and global beliefs in addition to purpose in life, one may approach the testing of Park and Folkman's (1997) meaning making model from a more holistic perspective to broaden our

understanding of both purpose and how people construct their personal narrative and perceive their future (Park, 2010).

Third, other well-rounded approaches may benefit this avenue of research in the future, with their absence being a possible limitation of the current studies. For example, certain authors suggest that, by taking on adult roles in some domains (e.g., employment), the attainment of developmental tasks and roles in other domains may be hindered (e.g., a stable partnership; Cohen et al., 2003). As, in study 1 the focus was on a singular developmental task—finding and retaining employment—it is possible that, by not investigating other domains, we are observing a limited scope of emerging adulthood life. For future studies, one could instead take a holistic approach, given that emerging adults have multiple trajectories (career, family, home-ownership; Salmela-Aro, 2009), and how purpose in life may affect these diverse areas. For example, family support has been shown to predict a greater sense of purpose in life (Stoyles et al., 2015), which might encourage emerging adults to strive for different trajectories (e.g., a stable partnership, starting one's family). Such a holistic approach is especially important because many situations that an individual encounters during the transition to adulthood are reversible rather than absolute (e.g., going from university to work and returning to university; Shanahan, 2000). Emerging adults may therefore pursue multiple developmental tasks simultaneously, or switch back and forth between them, indicating a need for more complex analyses of these various pathways and how purpose in life may come into play. Likewise, a person might have more than a singular sense of purpose, which would allow for transference in priority, depending on the progress made on one or the other (Kashdan et al., 2023). By observing multiple developmental tasks, personal and social domains, and whether one has a singular vs. multiple purpose(s) in life, researchers may obtain a "bigger picture" view of this period of the lifespan.

Fourth, one must keep in mind the particular *zeitgeist* of all three studies, which occurred in contexts that may—and often do—fluctuate with time. For example, regarding study 1, oscillations in postsecondary academic enrolment have been noted (e.g., a 0.6% decrease for the 2020/2021 academic year; Statistics Canada, 2024b) and unemployment rates have varied significantly among all age groups over the past five years, with the greatest changes seen among emerging adults (Statistics Canada, 2024a). Consequently, no cohort of emerging adults transitioning from university to employment will experience the same labour market landscape as their forerunners and successors. However, the present findings support that a greater sense of purpose in life benefitted emerging adults no matter their employment status (working full-time, part-time, or unemployed), and other potential difficulties can occur during this transition (e.g., employment instability; Ontario Ministry of Colleges and Universities, 2020). Additionally, individuals may struggle to find and retain satisfactory work due to personal circumstances (e.g., health issues, caregiver burden). As such, purpose in life would likely remain a beneficial asset at this time. Similarly, current COVID-19 data indicate that, generally, infection rates have been on the decline in both Canada (Health Canada, 2023; Mathieu et al., 2020) and globally (World Health Organization, 2024), signifying that potentially stressful life events experience their own particular life cycles. Therefore, while both personal, societal, and global circumstances may change, the present findings and growing research in this area (e.g., Kashdan & Goodman, 2023) suggest that purpose in life may be beneficial during times of transition and stress.

Lastly, other intriguing avenues of research related to the current findings include an investigation into how individuals engage in purpose-related activities and goals. After all, the corresponsive principle states that "trait-related experiences will reinforce people's personality traits" (Roberts et al., 2006, p. 469), suggesting that, due to a certain trait (e.g., purpose in life), individuals will seek out particular experiences that then will be the catalyst of change in said

trait. While the findings of study 3 indicate that using certain meaning making strategies such as acceptance is related to the maintenance of a sense of purpose, testing how individuals self-select into areas related to their purpose would provide further richness to what preserves this characteristic. Additionally, more researchers need to look at performing fine-grained analyses of how emerging adults utilise their experiences at school and in the workplace to initially construct and then revise their goals and purpose in life (Shanahan & Longest, 2009). After all, obstruction to the fulfilment of purpose-related goals has been suggested to lead to the decrease in sense of purpose in life and increase in distress (Park & Folkman, 1997). This may be further exacerbated by the proposal that greater purpose in life would lead to a decreased likelihood that a person would detach from a related goal, even if it may be unobtainable (Burd & Burrow, 2017), thus putting them at risk for said distress and a deflated sense of purpose. A future direction for research may be to investigate how purpose in life, striving for associated goals, and success vs. failure in attaining them may impact the maintenance of this characteristic that has otherwise been related to a number of beneficial outcomes (e.g., Kim et al., 2022).

Conclusions

Purpose in life is the view that one's life has personal meaning and direction (Ryff, 2014), and is the "why" that may help us get through the difficult "how"s of life (Nietzsche, 1889/1997, p. 6). This asset has been associated with a number of advantages, included increased longevity (Martela et al., 2024), lower incidence of depressive and anxiety symptoms (Boreham & Schutte, 2023), and greater overall well-being (Bronk et al., 2009; Pfund et al., 2020). The studies in this doctoral thesis aimed at bolstering the purpose in life research literature, as well as providing novel contributions to the field. This was achieved by exploring the benefits, mechanisms, and maintenance of purpose in life. Specifically, it was shown that a sense of purpose, both before and during the transition from university to work, helps emerging adults appraise their employment situation in a more positive light, despite potential hardships faced while pursuing this important developmental task. Furthermore, purpose in life was indicated to function, at least in part, by promoting the use of adaptive strategies, such as positive reframing and appraising a stressful event as less central to one's identity. Lastly, it was found that purpose in life can be maintained by an acceptance-based approach, even in the midst of a challenging context, such as the COVID-19 pandemic. In conclusion, by encouraging and providing resources to individuals that would help create, nourish, and sustain a sense of purpose in life, we may be better equipped to face the difficulties ahead.

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