Student Financial Well-Being, Health Behaviours, and Social Participation: A Mixed Methods Study

Evan Ripley-McNeil

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Student Financial Well-Being, Health Behaviours, and Social Participation: A Mixed Methods Study

By

Evan Ripley-McNeil

A Thesis
Submitted to the Faculty of Graduate Studies through the Department of Psychology in Partial Fulfillment of the Requirements for the Degree of Master of Arts at the University of Windsor

Windsor, Ontario, Canada

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Student Financial Well-Being, Health Behaviours, and Social Participation: A Mixed Methods Study

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February 9th, 2023
DECLARATION OF ORIGINALITY

I hereby certify that I am the sole author of this thesis and that no part of this thesis has been published or submitted for publication.

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I declare that this is a true copy of my thesis, including any final revisions, as approved by my thesis committee and the Graduate Studies office, and that this thesis has not been submitted for a higher degree to any other University or Institution.
There are a wealth of studies connecting personal finances to a range of well-being outcomes. However, little research has examined the relations between financial well-being and health behaviours or social participation. The present study probes these associations asking: (a) is students’ financial well-being linked to both health behaviours and social participation? (b) do students’ health behaviours and social participation mediate the relation between financial well-being and overall well-being? and (c) what are students’ perceptions concerning their finances and their futures? The thesis first sketches the social, political, and economic context within which the study is framed. Next, a review of the academic literature summarizes the current scientific understanding of personal finances and financial well-being, concerning their connections to overall well-being, health behaviours, and social participation. Students between the ages of 18 and 25 were recruited through the University of Windsor Participant Pool \((n = 298)\). Financial well-being was found to be associated with both health behaviours and social participation, and these variables were also found to mediate the relation between financial well-being and overall well-being. The results of the exploratory research questions reinforce that finances are a significant worriment for students regarding their future. Students’ perceptions of their finances, career prospects, and outlook for the future are presented herein. The findings of this study suggest that more research is needed to understand the mechanisms by which financial well-being influences overall health and well-being.
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Second, I would like to thank members of the Psychology department that assisted me along the way. My cohort for their feedback and encouragement, specifically Krista, Marissa, and Gena. The members of the lab who tested out my study. As well as, all of the professors who were willing to offer advisement while I worked out my research ideas, and the secretaries and students who are fundamental to this all coming together, my sincerest appreciation.
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<table>
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<tr>
<td>FWB</td>
<td>Financial Well-Being</td>
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<td>OWB</td>
<td>Overall Well-Being</td>
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<td>SWB</td>
<td>Subjective Well-Being</td>
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<td>EFFS</td>
<td>Expected Future Financial Security</td>
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<td>CMMS</td>
<td>Current Money Management Stress</td>
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<td>SES</td>
<td>Socioeconomic Status</td>
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<tr>
<td>COVID-19</td>
<td>COVID-19 Pandemic</td>
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<td>APA</td>
<td>American Psychological Association</td>
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CHAPTER 1

Introduction

Employment is an integral facet of modern society, determining the quality of individuals’ lives, the function of the economy, the vitality of democracy, and ultimately the level of respect for human dignity (Budd, 2018). As is typical for modern, industrial societies for more than a century, the majority of the population (approximately 90%; Piketty, 2014) is dependent on paid employment to provide an income supportive of being a social person (Deakin & Wilkinson, 2005). Although money can be obtained through other methods (e.g., pensions, transfer income, capital income), approximately two-thirds of household income is derived from compensation for labour (Piketty, 2015). This distribution demonstrates that there is a substantial emphasis on maintaining employment as the primary mode of bringing earnings into the household. The process of exchanging labour for monetary wages mediates the worker-employer relationship as it is the main means by which wage-workers’ basic needs are obtained in commoditized markets (Marx & Engels, 2011). The monetary system is an essential medium for all social participants in capital-dominant societies as non-participation would equate to ineffectual access to essential goods and services. It is a callous injustice that the most resource-abundant period of human history has yet to procure the most elementary of needs for everyone; namely procuring food security (Food and Agriculture Organization of the United Nations [FAO] et al., 2021) and eradicating homelessness (Lee et al., 2010; Maesele et al., 2014). Accordingly, does the current highly financialized monetary system create equal, convenient, and optimal conditions for people to obtain their basic needs and to live a quality life?
The system by which necessities are acquired has consequences. Beyond food, water, and housing, people now have another essential stressor: maintaining employment and/or income security, to obtain money to afford those necessities. Poverty has been recognized as a systemic issue preventing individuals from achieving adequate living conditions and exercising personal agency (Thompson & Dahling, 2019). More generally, income has been thoroughly vetted and sustained as a critical correlate to subjective well-being (Diener & Biswas-Diener, 2002; Myers & Diener, 2018; Jebb et al., 2018).

More nuanced and pertinent to the present study, Netemeyer et al. (2018) supported the notion that financial well-being (hereafter referred to as FWB) — a state of being in control of one’s personal finances, being capable of enduring financial shock, being on track toward financial goals, and experiencing financial freedom — is a significant predictor of overall well-being (OWB), even after controlling for level of income. The authors refined the construct of FWB into two dimensions: expected future financial security (i.e., the perception of future financial stability and ability to meet financial goals) and current money management stress (i.e., the perception of the individual’s current financial situation), suggesting these elements were tantamount to other life domains (i.e., job satisfaction, physical health, and relationship support satisfaction) in predicting OWB. Although researchers have long explored the drawbacks of work-life on well-being, such as work time (Major et al., 2002), work-family conflict (WFC; Netemeyer et al., 1996), work-life balance (Gröpel & Kuhl, 2009), finances, such as debt (Tay et al., 2017), and socioeconomic status (SES; Adler & Ostrove, 1999; Di Domenico & Fournier, 2014; Tan et al., 2020), little research has examined the role FWB
plays regarding health behaviours and social participation (Corman et al., 2012; Nelson et al., 2008), which could help to explain the relation of FWB to OWB.

This thesis probes the association between finances and well-being, specifically the detrimental effect on health behaviours and social participation. The central research questions include the following: (a) is FWB associated with health behaviours and social participation? and (b) is the relation between FWB and OWB mediated by health behaviours and social participation? Approaching the topic from a community psychology perspective rather than an economic or consumer science perspective should yield greater insight into the association between finances and OWB. This thesis begins by examining the current social, political and economic climate. Next, this paper provides an overview of the psychological literature that examines the intersection of finances and OWB, moving toward studies that focus on FWB as it pertains to health behaviours and social participation. Then the hypotheses, methods and results of the present study are detailed leading to a discussion of the findings and their implications for policies and future research.

**Background**

Several socio-political shifts towards the end of the 20th and into the turn of the 21st century, significantly influenced the current Canadian economic climate. After World War II many governments increased social benefits in the development of welfare states. Capitalist firms also struck a bargain with workers providing wages and benefits required to sustain the average household, reflecting what some scholars have labelled *Fordism* (i.e., a term used to describe a transition to a more state-led but industry driven society) wherein firms offer higher wages and job security to proliferate both mass production and...
mass consumption (Buchanan, 2018). But a severe economic recession in the 1970s characterized by both high inflation and high unemployment (i.e., stagflation; Law, 2014) encouraged policymakers to liberalize the market by opening up international trade and intensifying market competition (Barnes & Hall, 2013), while also seeking to disempower unions.

Before this period, people’s primary use of credit was through mortgages, but in the 1980s this predominance began to shift and debt became more intertwined with obtaining everyday needs (Harman, 2010). At the same time in Canada, conservative governments were able to push free-market principles after the failure of a Liberal government in attempting to centralize and stabilize energy sustainability for the country (McBride, 2001). Following the 2008 Global Financial Crisis, although many felt that the crisis demonstrated the failure of capitalism and the need for further government intervention, most governments cut expenses (Harman, 2010). Canada is now considered to have a “liberal market” economy. In this type of economy, businesses coordinate their operations through market relationships which are considered to be hierarchical and competitive (Hall & Soskice, 2001). McBride further commented that Canada is embracing the growing interconnectedness of the world in what he calls “neo-liberal globalization” (p. 14).

Globalization—referring to the expanding global systems of communication, transportation, economic markets, and persons (Turner, 2006)—is credited by some academics as being a catalyst for the growth of neoliberalism leading to it becoming the most predominant ideology across the world (Becker et al., 2021; Cerny, 2014). Neoliberalism refers to a broad range of economic policies intended to spur economic
development through competition and the free market (Turner, 2006). Leading Marxist political economist, David Harvey states that:

Neoliberalism is in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade (2007, p. 2).

Generally, neoliberalism is characterized by economic reforms that resemble early liberalism such as deregulating capital markets or privatizing state-owned enterprises (Boas & Gans-Morse, 2009). In other words, neoliberalism reinstitutes many free-market capitalist ideals within remnants and reconfigurations of the welfare state. The dismantling of public supports and the commodification of welfare that occurs through privatization under neoliberal regimes (Connell, 2010) necessitates that individuals carry greater responsibility for their income security, their debts, and their spending, transferring risk from the state or employer to the individual, and ultimately discouraging the use of welfare provisions (Mulcahy, 2017). Kumar (2009) stated that the economy today is more capitalist than ever, but it has been transformed by informationalism (i.e., enhanced information processing and communication resulting from technological advancements). Capitalism has been heavily debated over the years, lauded by some as essential to providing economic freedom and as an “engine of prosperity” (Friedman, 2020, p. ix) and by others as inconsistent with human flourishing (Chomsky & Polychroniou, 2017; Klein, 2015). Panitch and Gindin (2012) trace the complex history of global capitalism and the dominating role of the American state in creating the
conditions that lead to this resurgence of capitalism, arguing that these systems have generated vast economic and social inequality.

Research on neoliberalism and finance in psychology are relatively new and its psychological effects are still not well understood. Barnes and Hall (2013) noted that the distribution of well-being appears to be less equal under neoliberalism as well-being has increased only for those in the most privileged group. Pertinent to this thesis is the question: how do the current financial system and the economic climate impact persons and their well-being? On an individual level, Becker et al. (2021) found evidence to suggest that the more neoliberal one perceives their society to be, the lower their well-being. In their 4-party study, they concluded that neoliberalism may reduce well-being by creating feelings of disconnection, and increasing feelings of competition and loneliness.

*The Financialization of Everyday Life*

The ostensibly logical reasoning, or instrumental-rationality, that operates in a market space is increasingly pervading other areas of life, such as creating competitive pressures both institutionally and interpersonally (Barnes & Hall, 2013). In their review of the literature, Adams et al. (2019) discuss four themes that characterize the influence that neoliberalism tends to have on individuals. First, neoliberalism may evoke feelings of freedom from constraint, which generates a sense of abstraction from context (e.g., feeling a lack of connection with one’s neighbourhood). Second, neoliberalism leads individuals to form an entrepreneurial self (i.e., considering oneself to be a project to be developed or a product that needs to be marketed). Third, neoliberalism drives a desire for personal growth and fulfillment as the primary means of achieving well-being. And fourth, affect regulation is considered to be the key to success.
The term *homo economicus* is used in economics to describe a hypothetical person who is believed to rationally pursue their best interest. This person serves as a model of human behaviour for use in economic theories. This person is believed to be a rational utility maximizer, making choices that would equate to the most benefit and least cost to themselves, and is solely self-interested (Zak, 2008). Several problems stem from this assumption as we know people do not always behave rationally, and what is rational may be subjective given one’s circumstances or predisposition. Kahneman and Tversky (1984) discovered several mental heuristics and biases that impact people’s rationality when it comes to making judgements demonstrating how risk aversion and framing of outcomes can influence behaviours. Humans not always acting in their best interest challenges the foundation for the current economic system as there has always been a reliance on the centrality of rationality (Sent, 2017). Conversely then, the idea of bounded rationality, that humans are not perfectly rational decision-makers but have cognitive limitations (Simon, 1990), would be a more accurate depiction of human conduct and basis for determining economic behaviour.

Looking further at the far-reaching effects of neoliberalism, Pellandini-Simányi (2021) discusses how daily life has become financialized. They discuss how the term *financialization of everyday life* has been used across the literature in three main ways: (a) businesses capitalizing on aspects of everyday life, (b) the financial behaviour of households (i.e., risk-managing financial products such as real estate or a credit card), and (c) a cultural shift wherein people have readily adopted the financialization into their lives. Mulcahy (2017) discusses how financialization causes individuals to internalize entrepreneurial attitudes. Making matters worst, Mulcahy states that financialization
increases inequality and economic difficulties, and ultimately makes investments, loans, and credit necessary for some citizens to make ends meet (Mulcahy, 2017). Under neoliberalism, it seems that activities are becoming increasingly individualized; people are held personally responsible for their job and career success, their health and prevention of illness, and saving for their retirement (Biebricher, 2015). Next, this review covers the vast literature on how finances are associated with well-being, before turning to the newer research on FWB and the connection it has social participation and health behaviours.

**Well-Being**

Diener et al. (1999) define subjective well-being (SWB) as “a broad category of phenomena that includes people’s emotional responses, domain satisfactions, and global judgments of life satisfaction” (p. 277). Myers and Diener (1995, 2018) have conducted multiple reviews on the science of well-being and likewise delineate high SWB as recurrent positive affect, limited negative affect (affect meaning a state of emotion or feeling; American Psychological Association [APA], n.d.), and a general sense of satisfaction with life. Several theories exist that proffer different conceptualizations of well-being based on the proponent’s supposition of the most important factors. To begin, *hedonistic theories* typically regard the quantity of pleasure over pain as the most critical determinant; *desire theories* hold that an individual’s well-being increases as their current desires are fulfilled; and *objective list theories* typically take the form of an inventory of factors that comprise well-being (e.g., knowledge or friendship; Zalta, n.d.).

Various theories abound, research on well-being has increased in popularity over the past few decades with over 170,000 publications in the last 15 years alone (Diener et
al., 2018). Happiness is more than just advantageous in its own right; for instance, it is associated with longer and healthier lives, better relationships, increased prosocial behaviour, and greater success at work (Myers & Diener, 2018). Indeed, the establishment of the field of positive psychology has shifted the direction of psychology to not just examine dysfunction but to study what makes life worth living and how to best help people flourish (Seligman & Csikszentmihalyi, 2000).

**Finances and Well-Being**

Addressing the age-old question — does money buy happiness? — Myers and Diener’s (2018) recent review suggests that the answer is “yes”, at least to a certain extent. Their findings demonstrate that people in richer countries are happier than those in poorer countries, notwithstanding the contributing factors of democracy, safety, and education. Within a country, richer citizens (identified as those driving a Mercedes to work) were happier than poorer citizens (identified as those riding the bus to work). Moreover, they found that: (a) happiness did not increase with rising disposable income, (b) greater income had diminishing returns on happiness, (c) happiness may peak above an income of $100,000 per year, and (d) happiness may diminish above $250,000 per year. It appears there is some truth in the adage ‘money buys happiness’; however, too much money may decrease happiness. Hence the imperative examination into how this relation is manifested.

**Income**

In a review of the affiliation between income and SWB, Diener and Biswas-Diener (2002) called attention to the many positive associations with being wealthy: smaller prison sentences for identical crimes; greater health and mental health; longer life
expectancy; reduced rates of infant mortality; reduced likelihood of being the victim of a violent crime; less frequent stressful life events; lower occurrences of dropping out of school and teenage pregnancy for children in wealthy families; and lower instances of financial difficulty which are predictive of depression. The link between income and well-being appears to be widespread. Diener et al. (2013) examined whether rising income was related to greater SWB. Hierarchical linear modeling was used to analyze the responses of 838,154 cases over time; the sample comprised of a subset of data from the Gallup World Poll (GWP) collected between 2005 and 2011. The researchers reported several key findings: (a) increases in household income were related to both decreases in negative feelings and increases in positive feelings, (b) life evaluation (i.e., an appraisal of present life circumstances) was associated with both income and changes in income, (c) increases in material possessions, financial satisfaction, and optimism all mediated the relation between income and SWB, (d) income comparison (i.e., relative income compared to others in one’s country) within an individual’s nation failed to predict SWB when controlling for the effect of absolute income, (e) there was little support for a curvilinear relation between income and well-being, and lastly (f) income led to enduring changes not temporary rises to SWB.

Jebb et al. (2018) also analyzed data from the GWP which included 1.7 million cases collected across 164 countries between 2005 and 2016. They investigated the income-satiation point (i.e., a ceiling at which income would no longer contribute to greater well-being). Household income was reported in local currency and then converted into international dollars (provided by the World Bank’s private purchasing power parity ratios, which equates to the buying power of $1 USD). They found that income satiation
for life evaluation appeared at $95,000, and emotional well-being between $60,000 and $75,000. This satiation point arose at higher incomes in wealthier countries; and contrary to the findings of Diener et al. (2013), lessor life evaluations occurred beyond that edge. Jebb et al. conclude that income affects happiness through both need fulfillment and material desire.

In Canada, poverty is now measured using the Market Basket Measure which determines the poverty line based on the cost of a basket of goods (e.g., food) and services (e.g., transit) for a person to have a basic standard of living in a particular area (Benjamin et al., 2022). The World Bank reported that extreme poverty (specified as an income of less than $1.25 a day at 2005 purchasing power parity; Ravallion, 2013) has declined dramatically from 1.9 billion people in 1990 to 689 million in 2017 (though the rate of decline has slowed from 2015-2017). Although poverty rates have appeared to drop from 2015 to 2020 in Canada (Statistics Canada, 2022), these numbers do not reflect the most recent trends with inflation, which many Canadians are expressing concerns as they are experiencing higher prices for both food, housing, and gas (Macklem, 2022).

The COVID-19 pandemic (COVID-19) and its effect on the global economy has hindered this progress and is likely to trigger higher numbers of those in extreme poverty (World Bank Group, 2020). Roser and Ortiz-Ospina (2013) comment that global poverty is one of the worst problems facing the world today as it contributes to hunger, access to education, access to light at night, life expectancy, and dire health consequences. Moreover, Roser and Ortiz-Ospina suggest that the extreme poverty line is very low, and while this cut-off directs help to those most in need, hardship is still experienced by those above that line. In a special issue summarizing current research on low-wage work in the
United States, Shook et al. (2020) reported that over 40% of workers in the U.S. make less than $15/hour and that there is growing evidence this is not enough to meet their basic needs. Taken together with Roser and Ortiz-Ospina, the capacity of the wealth distribution system to meet the basic needs of citizens flounders at wide ranges of the income spectrum, not just the lowest end. Concerning the present circumstances and the ongoing COVID-19 pandemic, researchers Yang and Ma (2021) reported that poorer citizens in China were more susceptible to emotional disturbances throughout different phases of the disease outbreak and are less able to recover their psychological well-being.

Socioeconomic Status

SES can be characterized both subjectively and objectively. Subjective SES constitutes an individual’s perception of their social status compared to others in their community, whereas objective SES measures material resources (commonly operationalized as one’s income level), level of completed education, or both; subjective and objective SES are highly correlated though not perfectly (Tan et al., 2020). Adler and Ostrove (1999) reviewed the history of SES research highlighting a notable absence of the term in health research before 1985 where it merely appeared as a control variable. Beyond 1985, Adler and Ostrove illustrated the growing interest in the construct concerning health and present the multiple pathways by which SES can influence health and illness. Among these pathways are both environmental and psychological influences, which both are theoretically connected to the performance of health-relevant behaviours. More recently, Di Domenico and Fournier (2014) proposed that self-determination theory (SDT) could be a suitable framework in examining SES, income inequality, and health. SDT posits there are three essential psychological needs: competence, relatedness, and
autonomy (Deci & Ryan, 2000; 2008). Di Domenico and Fournier’s research demonstrated that both high objective and high subjective SES predicted greater levels of need fulfillment as conceived in SDT. Concerning well-being, Tan et al. (2020) conducted a meta-analysis across 357 studies to assess whether the connection between SES and SWB differs between objective and subjective methods of assessment. Their results suggest that the subjective appraisal of SES is more important to the SWB of an individual but maintained that both objective and subjective SES are significantly related to SWB.

Financial Debt

Another way researchers have approached the relation between income and well-being is by examining the consequences of debt. Tay et al. (2017) examined this association through empirical and meta-analytic techniques. They reported that out of 20 empirical studies, 90% yielded a significant negative effect. A random-effects meta-analysis of seven studies uncovered a meager correlation ($r = -.07$) between debt and SWB but did reveal several important moderators (viz. level of debt, source of debt, and overall financial resources). They reported that debt related to providing housing or education was not always associated with lower well-being, while credit card and automobile debt was consistently associated. Lastly, Tay et al. collected data from 2781 US college graduates concerning their finances and wellness. Using a moderated mediation, the authors demonstrated that income accounted for 40% of the predicted variance in life satisfaction, and debt accounted for 60%, positioning debt as a stronger predictor. The authors provided a conceptual model with two paths whereby debt influences SWB. The first path is described as a bottom-up spillover perspective wherein
debt directly affects financial satisfaction (an important domain in OWB); the negative effect will then spillover adversely influencing other life domains (e.g., family and leisure) and therefore overall SWB. The second path considers debt as a strain on the resources available to the individual; a lack of financial resources lowers SWB by creating stress and uncertainty and may limit the capacity to fulfill other life goals and needs.

Researchers in Toronto examined the impact of debt stress on adults in Ontario (Hamilton et al., 2019). In their sample, 14% reported having no debt, 27% reported not being stressed by their debt, 29% reported being slightly stressed about their debt, 20% reported moderate stress about their debt, 5% reported quite a bit of stress due to their debt, and 3% reported substantial stress because of their debt. Their results suggest that debt-related stress is a crucial factor in the relation between debt and health, with greater debt stress predicting moderate to severe psychological distress, poor to fair mental health, and poor to fair general health. The compelling effect of debt stress on mental health was significant despite controlling for education and income. Hamilton et al. concluded by recommending future research look at the different types of debt, and the temporal association through which debt impacts health. Addressing the former, Greenberg and Mogilner (2021) provided evidence that the type of debt with the strongest association with lesser life satisfaction is student loans (compared to mortgage and credit card debt); and further, that the degree to which the money owed is judged to be debt governs its emotional consequences (with student loans perceived most strongly as debt).
Having access to credit is considered to be an essential mechanism for modern society, spurring economic growth and allowing individuals to moderate their consumption cognizant of their variable income (Cecchetti et al., 2011). However, studies have long suggested that debt (especially insurmountable debt) is largely a consequence of poverty (Lea et al., 1993) among many other individual characteristics (e.g., sociodemographic, personality) that constitute an individuals’ background and also influence their economic decision making (see Gärling et al., 2009). A lack of financial history or stability can lead to persons in poverty being unable to utilize conventional credit markets, encouraging the use of high-risk borrowing options such as payday loans which are coupled with high interest rates and can trap users in a cycle of debt (Soederberg, 2014).

**Defining Financial Well-Being**

The Consumer Financial Protection Bureau (CFPB; 2015) describe FWB as a state of meeting financial obligations, feeling financially secure, and experiencing the freedom to make choices that support satisfaction in life (they operationalize this by focusing on the knowledge, behaviour, and personal traits that promote FWB). Salignac et al. (2020) called attention to the varied conceptualizations and definitions of FWB across the scientific literature. They suggested that the complex interplay between an individual’s environment and their FWB is not accounted for in existing conceptions. An ecological life-course approach was used to advance a new definition of FWB and a conceptual model of how it is achieved, maintained, and impeded. Salignac et al. recapped some other conceptualizations, wherein FWB is described as a domain or means of achieving OWB; some simply describe it as an outcome of financial
behaviours; and lastly as an interaction of both behaviour and environment. The authors’ main contention was that existing definitions do not account for the broad social and economic contexts to which the individuals are subject. To construct their definition and conceptual model, Salignac et al. conducted nine focus groups with Australian citizens of various ages and SESs, and 18 one-on-one interviews with citizens experiencing financial difficulties. Their findings highlight three predominant themes (each with underlying sub-dimensions) that emerged from asking what FWB meant to the participants:

“(1) Meeting expenses and having some money left over comprises three sub-dimensions: (a) meet expenses and manage debt, (b) having a ‘buffer’ in case of unexpected expenses, and (c) having some savings to afford ‘little extras’ if desired. (2) Being in control (i.e., feeling and acting in control of your finances) comprises two sub-dimensions: (a) having control over one’s financial situation in the present and in the future, and (b) having the ability to set and pursue goals for future spending and life planning. (3) Feeling financially secure comprises two sub-dimensions: (a) having limited financial worry in the present and in the future, and (b) how satisfied one felt about their financial situation.” (p. 1596)

When asked what factors shape their FWB, participants indicated three levels: (1) individual; (2) household, family, and peer; and (3) community and societal. The authors offered the following definition: “financial wellbeing is when a person is able to meet expenses and has some money left over, is in control of their finances and feels financially secure, now and in the future” (p. 1596). More importantly, they suggested it is inherently situated in the wider relational, social, structural, and temporal complexities of life.
Measuring Financial Well-Being

Contrary to Salignac et al.’s (2020) conceptualization, Netemeyer et al. (2018) delineated FWB into two factors: current money management stress (CMMS) and expected future financial security (EFFS). Netemeyer et al. conducted a comprehensive process of scale development to arrive at two dimensions. The researchers surveyed 1000 consumers (over the age of 18) through an online panel to develop and validate scales for CMMS (a pool of 15 items) and EFFS (a pool of 18 items); a scale of perceived financial self-efficacy (PFSE; a pool of 32 items) was also constructed concurrently. An exploratory factor analysis (EFA) was then used to refine the pool of items down to 10 items each. Two subsequent studies (one with 3000 consumers and the other with 7000) followed wherein the scales were refined to five items each, analyzed through both EFA and confirmatory factor analyses (CFA), trimming items with a pattern of low loadings. In the CFA, the final two-factor model fit the data well. In sum, Netemeyer et al. posited that the present dimension (i.e., CMMS) measures how respondents feel about their current financial affairs (viz. level of stress and worry, ability to manage finances, freedom to live), and the future dimension (i.e., EFFS) measures how the respondents feel about their financial future and safety (viz. perceiving security, meeting financial goals).

Sorgente and Lanz (2019) arrived at a different set of factors as they aimed to establish a multidimensional scale of financial well-being for emerging adults. Their development and validation of the Multidimensional Subjective Financial Well-being Scale (MSFWBS) suggested that FWB is comprised of five dimensions: general
subjective financial well-being, financial future, money management, having money, and peer comparison. A CFA supported a good fit for the 5-factor model.

Both the scales of Netemeyer et al. (2018) and Sorgente and Lanz (2019) offer compelling evidence for their validity, having gone through rigorous validation efforts. The intricacies raised by Salignac et al. (2020) stress the importance of context in conceptualizing FWB.

Financial Well-Being and Overall Well-Being

Research by Weinstein and Stone (2018) demonstrated that financial insecurity was associated with lower well-being (measured by self-esteem, depression, and anxiety) in a cross-sectional design, and provided evidence for a causal effect in an experimental design. This pattern was consistent across the range of SESs and income levels. Hassan et al. (2021) provided a systematic review of the scientific literature on FWB and mental health, reporting that a majority of the articles identified a significant relation and that the bidirectional effect was minimal. Further, the authors stated that financial difficulties predicted depression, stress, and anxiety; and that economic decline contributed to mental health problems.

Netemeyer et al. (2018) conducted a three-part study that looked at the antecedents and consequences of FWB. In study 1, well-being was moderately correlated to EFFS but only weakly correlated to CMMS. Two models were estimated in a hierarchical regression wherein EFFS and CMMS were only regressed on their hypothesized antecedents and control variables in the first model, adding their predictors (i.e., age and income level) in the second model. The results of the regression for the first
model showed that both EFFS and CMMS were significant predictors. In the second model, EFFS did not differ substantially from model 1, but CMMS became more consequential. Moreover, the researchers highlighted the support for their hypothesis that the effect of CMMS would be more critical for the lower income group as demonstrated by their interaction. The findings of the second model provide support for the theory that EFFS and CMMS have different antecedents. Study 2 aimed to compare the effect of FWB on OWB to that of other life domains. The results support the significance of EFFS and CMMS above job satisfaction alone, relationship support satisfaction, and physical health. Study 3 examined the causal nature of both EFFS and CMMS. An experiment was conducted on a sample of respondents (recruited through Mechanical Turk), wherein participants were randomly assigned to two conditions. For CMMS (study 3a), participants were asked to either recall a day in the past three months when they felt little stress (success frame) or when they felt very stressed (failure frame). Participants in the success frame condition had lower CMMS (reverse-scored) and OWB than participants in the failure frame condition. For EFFS (study 3b), participants were asked to think about a day when they had either good (success frame) or bad (failure frame) prospects of their long-term financial security. Participants in the success frame condition reported greater EFFS and OWB. These findings lend support to the causal influence of both CMMS and EFFS on OWB.

Specific to student populations, Lewis et al. (2007) explored the relation between the type of residence and the economic well-being of students in Australia. They found that students who lived in a private residence (i.e., away from their parents) were more likely to experience financial hardship. Moreover, some students choose to work during
their time at school to meet the rising costs of education and mitigate the expenses and debt accrued; Lenaghan and Sengupta (2007) developed and tested a conceptual model of role conflict and role balance, and their negative association with a working students’ well-being. If students experience role overload between their identity as both a student and a worker, it is likely to be related to reduced feelings of well-being.

**Financial Well-Being and Health Behaviours**

Nelson et al. (2008) examined the association between credit card debt, stress, and health risk behaviours (with an emphasis on weight-related behaviours; e.g., physical activity/sedentary behaviour, dietary intake, weight control, and body satisfaction). They analyzed the responses of 3206 college students (with a response rate of 55%), collected in 2004 at the University of Minnesota. Of their sample, 21% had no credit card, 39% carried no balance on their credit card, 15% had credit card debt in the range of $1-999, 17% in the range of $1000-5999, and 6% had debt greater than $6000. Thus, roughly 1 in 4 students had credit card debt greater than $1000, and this group was more likely to score high on a variety of health-risk indicators: obesity, deficient physical activity, immoderate television viewing, reduced consumption of breakfast, fast food consumption, detrimental weight control, body dissatisfaction, binge drinking, and substance use. Poor stress management and perceived stress level were also strong indicators of these risk behaviours.

Based on this analysis, Nelson et al. believed that students are at risk for a variety of co-occurring factors, creating barriers to favourable weight-related health behaviours. Indeed, Du et al. (2021) reported that greater financial stress was linked to lower vegetable, fruit, fiber, and calcium intake; greater sugar intake; and higher dietary risk in
a sample of students across three large U.S. universities. Interestingly, poor sleep quality fully mediated the positive relation between financial stress and dietary risk in students who reported sleeping less than 7 hours per night. This would suggest that sleep is an important health behaviour in the complex interplay between financial stress and weight-related health. Gomes et al. (2020) demonstrated that SES (as measured by family income, household overcrowding, number of goods in the household, and parental level of education) was predictive of toothbrushing frequency and smoking, and was directly related to health-related quality of life in a sample of adolescents in Brazil.

Shi et al. (2019) took an interesting approach to investigate the direct and indirect effects of income on life satisfaction. Employing a method which they call the life satisfaction valuation approach (see Ferrer-i-Carbonell & van Praag, 2002) which assumes that life satisfaction is a linear function of the natural logarithm of household income, health-related behaviours, and other individual characteristics. Using a regression model, this technique produces a $\beta$ coefficient representing the monetary value for a variable equivalent to the necessary change in household income that would result in the same change in life satisfaction. Shi et al. report that both income and health behaviours were associated with life satisfaction. Moreover, indirect effects were found for each of physical activity, eating fruits and vegetables, and smoking; the monetary valuation for these factors were estimated (in Canadian dollars per week) at $631, $115, and $563 respectively. Their results suggest that health behaviours are potentially mediating factors between income and life satisfaction.
Financial Well-Being and Social Participation

Social participation has been growing in use in the health and social care literature and is believed to be an important determinant of health and well-being (Piškur et al., 2014). Although social participation has multiple conceptions across the academic literature, the definition proposed by Levasseur et al. (2010), reflects the author’s intention in this study: “Social participation can be defined as a person’s involvement in activities that provide interaction with others in society or the community” (p. 2148).

Few studies have connected FWB to social participation; nevertheless, research that has examined parallel concepts to FWB and social participation are presented. In a review of the literature Weinstein and Stone (2018) point to several articles that link financial insecurity to reduced relatedness and increased feelings of loneliness. Unfortunately, in their analysis, the construct of relatedness was subsumed into the composite measure of overall need satisfaction; nevertheless, financial insecurity was found to be associated with lower psychological need satisfaction.

Yeo and Lee (2019) asked whether social capital (i.e., bonding social capital which refers to the available resources from close ties to others, and bridging social capital, which refers to the available resources from weak ties to others) mediates the relation between FWB and life satisfaction. In a sample of 4682 older adults (ages 51 to 104), social capital was a significant mediator in the relation between FWB and life satisfaction, suggesting that the social resources available to an individual partly determine the effect finances will have on their life evaluation.
Similarly, Snow et al. (2017) examined social connectedness as a mitigating factor of financial hardship using a qualitative methodology. They present the term social-financial connectedness to illustrate the importance of social connections in overall financial well-being, recognizing the collective capacity to live well and share despite their financial circumstances. Their results suggest that categorizing people in terms of income level is an insufficient means of capturing the diversity of the sample, as families, friends, and social networks all contribute to the individuals’ present circumstances, not just their financial management or mismanagement.

Corman et al. (2012) looked at the effects of financial insecurity on social participation in a sample of women who participated in a U.S. longitudinal study. Social participation was operationalized as both participation in organizations and number of close friends, and financial insecurity inversely as having financial buffers or safety nets and the number of material hardships they experience (e.g., unable to afford bills, insecure housing situations, etc.). Financial insecurity was linked to lower participation in organizations and having three or fewer close friends. Furthermore, mental health (measured as depression) was not supported as a pathway by which financial insecurity affects social interactions but was strongly correlated with the number of close friends.

**Present Study**

Given the volume of research evidence linking finances and FWB to OWB, the present research seeks to: (1) examine the relation between FWB with both health behaviours and social participation, (2) evaluate whether health behaviours and social participation mediate the relation between FWB and OWB, and (3) explore the
perceptions of students concerning their finances, their career prospects, and their outlook for the future. To that end, the following hypotheses are put forward:

**Hypotheses**

Based on research by Nelson et al. (2008) who found that debt was associated with a range of health indicators among college students, it was hypothesized ($H_1$) that FWB will be positively associated with students’ health behaviours.

Based on research by Weinstein and Stone (2018), who found that financial insecurity could undermine the fulfillment of basic psychological needs, it was hypothesized ($H_2$) that FWB will be positively associated with students’ social participation.

Based on research by Lewis et al. (2007), who found that living away from home was predictive of financial hardship, it was hypothesized ($H_3$) that students not living with their parents will have lower FWB than students living at their parental home.

Based on research by Lenaghan and Sengputa (2007), who found that working students may experience role overload leading to reduced well-being, it was hypothesized ($H_4$) that the number of hours a student works will be negatively associated with OWB.

Based on research by Shi et al. (2019), who indicated that health behaviours were an indirect pathway in the relation between income and life satisfaction, it was hypothesized ($H_5$) that health behaviours will mediate the relation between FWB and OWB.
Based on research by Yeo and Lee (2019), who demonstrated the mediating effect of social capital between FWB and life satisfaction, it was hypothesized ($H_6$) that social participation will mediate the relation between FWB and OWB.

**Exploratory Questions**

In addition to the hypotheses put forward, this study also delves into several exploratory questions that are closely related to the primary research topic. The first concerns students’ perceptions around finances, asking students to share the pressures they experience when they think about their finances to provide a richer context to the measure of FWB. The real estate market in Windsor-Essex was at an all-time high during data collection which led to an inquiry of students’ views on being able to purchase a home in the foreseeable future. The second is an inquiry into the career prospects of students. Employment is entwined with one’s financial success and students are investing their time and money in furthering their education; therefore, asking about their assurance in finding a job that will provide them with security and lead to a fulfilling life is critical in understanding their overall life evaluation and future security, especially in regard to their finances and the costs and benefits of the choices they are making. The third exploratory question seeks to understand students’ outlook on the future, probing the elements they believe to constitute a fulfilling life. Do students buy into the notion that making sacrifices for future gain is worthwhile? Moreover, the COVID-19 pandemic has dramatically altered lives for the past several years. Although restrictions were being lifted in the Windsor-Essex area the impact of the experience remains present. Younger generations are also more attuned to other global threats such as climate change, and the war in Ukraine which was ongoing at the time of data collection. This led to a query
regarding how students see the world and how these events and concerns have shaped their confidence about their future.
CHAPTER 2

Method

Participants

Participants were recruited through the University of Windsor Psychology Participant Pool, which contains a large group of undergraduate students who complete studies for bonus credits in registered courses. Though the majority of these students are psychology majors, students from other disciplines are welcome as long as they are currently enrolled in an eligible psychology course. Screening criteria limited eligible participants to those between the ages of 18 and 25, no other specific criteria were required for participation. The target sample was 300 students, but only 298 were included in the final analyses after deleting cases of participants who wished to have their data removed. The majority of participants identified as woman/girl (259 woman/girl, 33 man/boy, 6 non-binary, genderqueer, agender, or a similar identity; participant demographics can be found in Table 1).

Table 1

Demographics

<table>
<thead>
<tr>
<th>Variable</th>
<th>( n ) (Total = 298)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman/girl</td>
<td>259</td>
<td>86.9</td>
</tr>
<tr>
<td>Man/boy</td>
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<td>11.1</td>
</tr>
<tr>
<td>Non-binary, genderqueer, agender, or a similar identity</td>
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<td>2.0</td>
</tr>
<tr>
<td>Age</td>
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<td></td>
</tr>
<tr>
<td>18</td>
<td>25</td>
<td>8.4</td>
</tr>
<tr>
<td>19</td>
<td>66</td>
<td>22.1</td>
</tr>
<tr>
<td>20</td>
<td>71</td>
<td>23.8</td>
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<td>22</td>
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<td>1.0</td>
</tr>
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<td>1.3</td>
</tr>
<tr>
<td>----------</td>
<td>----</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Race/Ethnicity¹</strong></td>
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<td></td>
</tr>
<tr>
<td>White or European Canadian</td>
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<td>67.4</td>
</tr>
<tr>
<td>Indigenous (Metis, Inuit, First Nations)</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>East Asian, Pacific Islander or Asian Canadian</td>
<td>22</td>
<td>7.4</td>
</tr>
<tr>
<td>Middle Eastern or Middle Eastern Canadian</td>
<td>36</td>
<td>12.1</td>
</tr>
<tr>
<td>Latin, Central or South American or Latin Canadian</td>
<td>7</td>
<td>2.3</td>
</tr>
<tr>
<td>Other or multiple race, ethnicity, or origin</td>
<td>40</td>
<td>13.4</td>
</tr>
<tr>
<td><strong>Relationship</strong></td>
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<td></td>
</tr>
<tr>
<td>Not in a relationship</td>
<td>145</td>
<td>48.7</td>
</tr>
<tr>
<td>In a relationship</td>
<td>148</td>
<td>49.7</td>
</tr>
<tr>
<td>Multiple partners</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>No</td>
<td>296</td>
<td>99.3</td>
</tr>
<tr>
<td>Missing</td>
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<td>0.3</td>
</tr>
<tr>
<td><strong>Social Class²</strong></td>
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</tr>
<tr>
<td>Poor</td>
<td>4</td>
<td>1.3</td>
</tr>
<tr>
<td>Working class</td>
<td>86</td>
<td>28.9</td>
</tr>
<tr>
<td>Middle class</td>
<td>188</td>
<td>63.1</td>
</tr>
<tr>
<td>Affluent</td>
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<td>3.4</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>10</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>Household Income</strong></td>
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<td></td>
</tr>
<tr>
<td>Below $10,000</td>
<td>22</td>
<td>7.4</td>
</tr>
<tr>
<td>$10,000 - $25,000</td>
<td>20</td>
<td>6.7</td>
</tr>
<tr>
<td>$25,000 - $50,000</td>
<td>33</td>
<td>11.1</td>
</tr>
<tr>
<td>$50,000 - $100,000</td>
<td>64</td>
<td>21.5</td>
</tr>
<tr>
<td>$100,000 - $150,000</td>
<td>38</td>
<td>12.8</td>
</tr>
<tr>
<td>Over $150,000</td>
<td>45</td>
<td>15.1</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>18</td>
<td>6.0</td>
</tr>
<tr>
<td>I don’t know</td>
<td>58</td>
<td>19.5</td>
</tr>
<tr>
<td><strong>Living situation</strong></td>
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<td></td>
</tr>
<tr>
<td>With parents</td>
<td>228</td>
<td>76.5</td>
</tr>
<tr>
<td>Alone</td>
<td>8</td>
<td>2.7</td>
</tr>
<tr>
<td>With a partner</td>
<td>13</td>
<td>4.4</td>
</tr>
<tr>
<td>With roommates</td>
<td>46</td>
<td>15.4</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Student loan</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>141</td>
<td>47.3</td>
</tr>
<tr>
<td>No</td>
<td>151</td>
<td>50.7</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>6</td>
<td>2.0</td>
</tr>
</tbody>
</table>

¹Total exceeds 298 as participants could select more than one category
²Participants’ self-identified social class.
Procedure

The study received ethics clearance through the Research Ethics Board at the University of Windsor. The study was advertised through the University of Windsor Psychology Participant Pool through which students registered for the study and received a link to complete the survey. The survey was hosted on the online platform Qualtrics. Participants were first provided details of the study and instructed to review and indicate consent. They then responded to several multiple-choice and open-response questions regarding their demographics, FWB, health behaviours, social participation, OWB, and COVID-19 impact. Participants were allotted 30 minutes to complete the survey and were compensated 0.5 bonus marks (equivalent to 0.5% bonus in their course) for their participation. Participants took on average 23 minutes to complete the survey (excluding 6 outliers whose time exceeded 260 minutes). After completing the survey, the participants were redirected to a separate landing page to collect their information for compensation. All data collection occurred between February and April of 2022.

Measures

The psychometric properties for each of the scales used in this study are provided in Table 2. See Appendix A for a complete list of demographic questions.

Financial Well-Being

**Multidimensional Subjective Financial Well-being Scale.** The MSFWBS is a 25-item measure of subjective financial well-being for emerging adults spanning across 5 dimensions: general subjective financial well-being (10 items; $\alpha = .91$), financial future (5 items; $\alpha = .82$), money management (4 items; $\alpha = .81$), having money (3 items;
\( \alpha = .84 \), and peer comparison (3 items; \( \alpha = .78 \); Sorgente & Lanz, 2019). Correlation among factors ranged from -.001 to .558. The items are measured on a 5-point scale (1 = “absolutely false” to 5 = “absolutely true”). The MSFWBS was validated in both Portuguese and Italian; other languages are currently being validated. The English version, originally administered in India, was adapted for use in the present study to rectify linguistic idiosyncrasies in the wording of the questions. The 5-factor structure was found to have a good fit. Convergent validity was demonstrated through correlations with objective measures of financial well-being (e.g., personal income, family of origin income). Evidence of divergent validity was not provided. See Appendix B for a complete list of items.

**Overall Well-Being**

**The Warwick-Edinburgh Mental Well-being Scale (WEMWBS).** This instrument was developed by Tennant et al. (2007a) and is a 14-item measure of mental well-being, covering the domains of positive affect, positive functioning, and satisfying interpersonal relationships. Participants are presented with a list of statements (e.g., “I’ve been feeling good about myself”) and asked to indicate how often it describes their experience over the past two weeks on a 5-point scale (1 = “none of the time” to 5 = “all of the time”). Scores range from 14 to 70, with higher scores indicating greater well-being. Tennant et al. (2007b) reported an \( \alpha \) of .89 for a student sample (\( M = 50 \)) and .91 for a population sample (\( M = 51 \)). For this study, a persons averaged score across questions was used to for analyses, therefore scores can range between 1 and 5. Construct validity was established through a CFA which indicated an adequate fit for the single factor structure. See Appendix C for a complete list of items.
**Health Behaviours**

**Healthy Activities Scales.** Hill et al. (2013) created this instrument in the context of a study looking at the pathways between gratitude and self-rated physical health across adulthood. The scale contains 5-items, each capturing different types of health behaviours: nutrition, exercise, personal well-being, social well-being, and drug use. Responses are answered on a 5-point scale (1 = “not at all” to 5 = “very”). The reliability reported was somewhat below standard (α = .64), but the authors comment that the items are relatively heterogeneous so lower reliability was expected. Two items were eliminated after examining the scale reliability. “I try to avoid negative influences on my health, such as alcohol consumption and/or the use of drugs” was removed to improve the α from .67 to .75, and “I regularly meet up with friends” was removed to avoid overlap with the social participation variable, improving Cronbach’s α to .82, see Appendix F for a complete list of items.

**Social Participation**

To measure social participation, questions were adapted from a questionnaire developed by the National Organization on Disability in 2004 (as cited in Laslo-Roth et al., 2020). The questionnaire contains 5 items which assess the frequency of which subjects engage in the following social activities: interacting with friends and family, engaging in religious activities, participating in social events in the community, participating in volunteer or public activities, and going to parks in the community. Items were measured on a 5-point scale (1 = “never” to 5 = “more than twice a week”). No psychometric data were provided for the original questionnaire.
Covariates

**COVID-19 Impact.** The author anticipated that participants would be adversely affected by psychological stressors from lockdown measures, decreases in social contact, and changes to everyday life resulting from the COVID-19 pandemic. To mitigate that influence a brief measure of psychological impact, the COVID-19 Psychological Impact Survey (Browning et al., 2021) which is an 8-item measure developed specifically for measuring psychological impact on post-secondary students, was included in data collection. The first 3 items are on a 7-point scale (1 = “strongly disagree” to 7 = “strongly agree”), and the remaining 5 items are on a scale of 100 (0 = “not at all” to 100 = “extremely”). The measure is composed of two factors, worry time (α = .87) and emotional distress (α = .83), see Appendix F for a complete list of items.

In addition to the scales described above, several open-response questions were administered to participants concerning their health behaviours, social participation, as well as some exploratory questions pertaining to their finances, job and career prospects, outlook regarding purchasing a home, student loans, the state of the world, and aspects important to their quality of life. These questions are analysed using qualitative content analysis (Krippendorff, 1989) through which the participant’s responses were investigated to establish valid inferences related to each topic. In preparation, the author became familiar with the data by reading through responses and selecting the units of analysis to be the responses to each question. An inductive content analysis was chosen for the data, following the steps described by Elo and Kyngäs (2008). The author first used open coding to describe each response with as many labels as necessary to describe the content. Next, categories were created that grouped the individual codes into a
meaningful classification. Finally, where appropriate, categories were synthesized and a description derived for reporting. Several questions asked participants to indicate why they agreed or disagreed with a statement. These responses were grouped into three categories by the author during the coding process: clear agreement, clear disagreement, and neither completely agree nor completely disagree.
CHAPTER 3

Results

Quantitative Analyses

The quantitative analyses were completed via IBM SPSS Statistics (Version 27). To assess missing data points, Little’s MCAR test was conducted to examine whether the data were missing completely at random. The test was significant, $\chi^2 (1923) = 2165, p < .001$, indicating that the data were not missing at random. This was due to 5 questions from the COVID-19 Impact which were assessed on a sliding scale from 0 to 100. Between 5.4% and 12.1% of data were missing for these items. Removing these items and conducting Little’s MCAR test again indicated the remaining missing data were still not completely at random, $\chi^2 (815) = 923, p = .005$. To handle the missing data points, pairwise deletion was chosen and cases with missing data on a variable required for analysis were ignored. Outliers were examined using several methods. Although several cases were examined through individual item z-scores, residuals, leverage elements, and Mahalanobis’ distance, none of the cases demonstrated significant influence on the overall model (as assessed by Cook’s distance below 1, and standardized DFFITS and DFBeta below 0.837) therefore the observations were retained for the analyses. An adequate sample size was present for the MRA as there were sufficient cases relative to the number of predictors. Observation of residual plots suggested no problems with normality, linearity or homoscedasticity of errors. The absence of multicollinearity was assumed as the tolerance (> .8) and VIF (<1.3) were within the acceptable range. Independence of errors was confirmed by a Durbin-Watson value of 1.86 (acceptable within 1.5 to 2.5).
The descriptive statistics, Cronbach’s alphas, and correlations for the study variables can be found in Table 2. Additionally, participants reported the number of hours they worked a week in an office, in the field, or at home (if participants indicated a range, then the middle value was supplanted), this was not correlated with OWB ($p = .420$). The COVID-19 subscales were not correlated with most of the study variables except for emotional distress which was negatively correlated to OWB. A one sample t-test was conducted comparing the mean OWB of the sample to the scale’s validation sample to examine whether OWB was significantly lower for the current sample. The results were significant with the current student sample scoring lower on OWB ($M = 3.19$, $SD = .73$, $n = 294$) than the original student sample ($M = 3.57$, $t(293) = 8.93$, $p < .001$).

Table 2

Descriptive Statistics, Cronbach’s Alphas and Correlations for Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Financial Well-being</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2. Overall Well-being</td>
<td>.50**</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. Health Behaviours</td>
<td>.34**</td>
<td>.44**</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Social Participation</td>
<td>.32**</td>
<td>.44**</td>
<td>.33**</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. COVID-19 Worry Time</td>
<td>-.05</td>
<td>-.06</td>
<td>-.08</td>
<td>-.04</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>6. COVID-19 Emotional Distress</td>
<td>-.12</td>
<td>-.16*</td>
<td>-.09</td>
<td>-.03</td>
<td>.70**</td>
<td>–</td>
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<th>297</th>
<th>297</th>
<th>298</th>
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<tr>
<td>$M$</td>
<td>3.33</td>
<td>3.19</td>
<td>3.17</td>
<td>2.69</td>
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<td>2.06</td>
</tr>
<tr>
<td>$SD$</td>
<td>0.72</td>
<td>0.73</td>
<td>0.92</td>
<td>0.73</td>
<td>1.60</td>
<td>1.17</td>
</tr>
<tr>
<td>$\alpha$</td>
<td>0.85</td>
<td>0.94</td>
<td>0.82</td>
<td>0.62</td>
<td>0.94</td>
<td>0.87</td>
</tr>
</tbody>
</table>

* $p < .05$, ** $p < .001$
An independent samples t-test was conducted to explore the difference in FWB between participants based on their living situation, comparing those living with their parents against those who do not. Students living with their parents had greater FWB ($M = 3.38$, $SD = .71$, $n = 221$) than students in other living situations ($M = 3.15$, $SD = .75$, $n = 67$, $t(286) = 2.26$, $p = .025$).

A mediation analysis using Hayes (2012) Process Macro 3.5 was conducted to determine whether health behaviours and social participation would partially mediate the relation between FWB and OWB, in other words, whether these variables are potential indirect pathways between FWB and OWB. The model overall was significant, $R^2 = .40$, $F(3, 278) = 61.65$, $p < .001$ (see Table 3). FWB ($B = .34$, $t(278) = 6.56$, $p < .001$), health behaviours ($B = .21$, $t(278) = 5.16$, $p < .001$), and social participation ($B = .26$, $t(278) = 5.04$, $p < .001$) were all significant predictors of OWB.

### Table 3

*Multiple Regression Analysis for Financial Well-being, Healthy Activities, and Social Participation on Overall Well-being*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>SE</th>
<th>$t$</th>
<th>$p$</th>
<th>95% CI</th>
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<tr>
<td>Constant</td>
<td>.70</td>
<td>.19</td>
<td>3.72</td>
<td>&lt;.001</td>
<td>[.33, 1.07]</td>
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<tr>
<td>Financial Well-being</td>
<td>.34</td>
<td>.05</td>
<td>6.56</td>
<td>&lt;.001</td>
<td>[.24, .44]</td>
</tr>
<tr>
<td>Health Behaviours</td>
<td>.21</td>
<td>.04</td>
<td>5.16</td>
<td>&lt;.001</td>
<td>[.13, .29]</td>
</tr>
<tr>
<td>Social Participation</td>
<td>.26</td>
<td>.05</td>
<td>5.04</td>
<td>&lt;.001</td>
<td>[.16, .36]</td>
</tr>
<tr>
<td>$n$</td>
<td>282</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.40</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>$F$</td>
<td>61.65</td>
<td></td>
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</table>

The results of the mediation analysis revealed that FWB was a significant predictor of both health behaviours ($B = .42$, $t(280) = 5.83$, $p < .001$) and social participation ($B = .31$, $t(280) = 5.48$, $p < .001$). Based on 5000 bootstrap samples the total effect of FWB on OWB was $B = .51$, $t(280) = 9.60$, $p < .001$, with an indirect effect of $B$. 

36
=.17 occurring through health behaviours ($B = .09, CI_{95} [.04,.15]$) and social participation ($B = .08, CI_{95} [.04,.14]$; see Figure 1). Since zero does not fall within the 95% confidence intervals, we can reject the null hypotheses and therefore suggest a partial mediation for both mediators. The direct effect of FWB on OWB therefore becomes $B = .34$, $t(280) = 6.56$, $p < .001$. Sobel’s test and the proportion of mediation are not reported based on recommendations by Field (2013).

**Figure 1**

*Mediation Model for Financial Well-being on Overall Well-being as Mediated by Health Behaviours and Social Participation*

Qualitative Analyses

*Health Behaviours*

To determine what the main barriers to healthy behaviour were for students, participants were asked “What obstacles do you face in trying to live a healthy life?” The
most common barrier concerned the participant’s time availability \((n = 82)\) reporting that they had no time, were unable to find a balance, or that being healthy conflicted with their roles as a student or employee. The second most frequent response was being tired, lacking motivation or energy \((n = 76)\) and the third was finances \((n = 65)\) with participants speaking about their current financial position being strained and the expensiveness of healthy food and gym memberships. This quote from a participant demonstrates all of the preceding concerns which were commonly interwoven together:

“For one, foods that are considered healthy, such as fresh produce and fresh meat are considerably pricy, as a student it is not easy to afford and also have the time to make homecooked meals. When it comes to exercise, I often spend all of my free time from school resting and am often too exhausted to think about getting up and moving around. I would say time, energy and money are my biggest obstacles”

Some pointed to their mental health \((n = 52)\) experiencing stress, anxiety and depression as barriers, while others communicated the difficulties of eating healthy \((n = 24)\) such as craving junk food or opting for the convenience of fast food, or how the COVID-19 pandemic caused gym closures \((n = 18)\). Conversely, 14 students reported having no obstacles or not many. Similarly, participants were asked to indicate why they do or do not agree with the following statement: “School and/or work make me too tired to be physically active”\(^\text{1}\): 167 agreed with this statement describing feelings of tiredness, lacking energy, and feeling drained or stretched thin due to other parts of their lives; this was reported by 100 students. For example, one student stated:
“I think this is true. After an 8 hour shift I just want to go to bed. After spending all day in class I feel like my brain is unable to function. It can be mentally exhausting in both these environments, and thus I feel the exhaustion from head to toe.”

Disagreement was reported by 67 students, and neither agreeing or disagreeing completely by 56. Some primary justifications for disagreement were simply having the time and energy, having a balance or schedule in place, or putting in the effort to make time.

When asked whether students had the freedom to make healthy choices, 236 agreed, 17 disagreed, and 35 neither agreed nor disagreed completely. The most prevalent reason for agreement was the belief that they had free choice to make these decisions with many using the idiom “I am my own person” to describe this reasoning. The next most common reason for agreement was that they felt they had the financial stability or resources to support making healthy choices. Contrarily, of those who disagreed, half reported that healthy choices were expensive or that they lacked the financial resources.

**Social Participation**

Participants were asked to describe why they agreed or disagreed with the statement “I miss out on social activities I want to do because of my job and/or academics”. Of those who agreed (n = 156), 89 specified having to prioritize their academics or jobs over social activities and oftentimes having to sacrifice opportunities that they wanted to partake in due to a conflict with their other responsibilities. For example, students would identify studying or their work schedule as conflicting with their
social lives, struggling to maintain a balance between them. In some cases, students reflected positively on this notion, suggesting that it would lead to success or that it is important to have priorities. However, students that framed it negatively, expressed regret over missing social events or not being able to see their friends. Contrarily, of the 76 students that disagreed, 58 indicated that they were able to balance, manage, or make time to complete their school or work and still be social. Another 56 students did not agree or disagree completely.

*Exploratory Questions*

**Finances.** Participants were asked what pressures they experience in regard to finances. Financial security and their ability to meet expenses in the future was the most prevalent response \( (n = 97) \) with major concerns over inflation and the housing market. Several expressed concern over whether they would ever be able to buy a house. Saving money and investing were reported by 52 of the participants, and the cost of education and student loans was also reported by 52 participants. Many students \( (n = 43) \) felt a strain on their ability to participate in things they want to do, having to weigh their wants and needs, and feeling guilty for spending money. The weight of these pressures can be seen in one participant’s response:

“The pressure of my whole entire life feels like it rests within my finances. I feel very anxious for my future and present self. There are so many things that I wish I could do, experiences I would love to have, but because of my financial troubles, those things do not seem realistic to me. Vacationing, updating my wardrobe, going to the hair dressers, etc., any "luxury" items or activities, are somethings that I cannot and do not see myself being able to engage in. I constantly worry
about if I am going to have enough money to put gas in my car, to feed myself, to pay my bills, etc.”

Some other pressures include the perceived expectations of either parents or peers \( n = 29 \), feeling the compulsion to make money and wondering if it will ever be enough \( n = 27 \), finding a job or career \( n = 19 \), and worry about achieving independence \( n = 17 \). In contrast, 26 reported feeling little or no pressures surrounding their finances.

Students were asked to indicate why they agreed or disagreed with the statement “I will be able to purchase a home in a reasonable time frame”. Of those who disagreed \( n = 148 \) the housing market and inflation were the primary concern reported \( n = 104 \), with only a few citing their education as a barrier \( n = 10 \), and others seeing it as a long time away \( n = 10 \). Of the 81 participants who agreed, having adequate savings or a savings plan was the most common response \( n = 25 \), followed by assurance in their future career \( n = 9 \), splitting costs with a partner \( n = 8 \), and support from parents \( n = 5 \). Neither agreeing nor disagreeing completely described 56 of the participants.

**Career Prospects.** Participants generally agreed that they would be able to find a job that would provide them with security \( n = 225 \) with a large portion citing their education, program, field, career path, or qualifications as the dominant mechanism for obtaining this from their employment \( n = 113 \). Personal effort, such as motivation or hard work, was the second most common response \( n = 30 \), followed by the belief that there were adequate job openings or opportunities \( n = 16 \). Only 16 participants disagreed with this statement, professing reasons such as society has made this too
difficult ($n = 6$) or being doubtful their degree will lead them to a secure job ($n = 4$). Additionally, 49 neither agreed nor disagreed completely.

Next, participants were asked whether they would be able to find a job that will allow them to have a fulfilling life. Again, a majority agreed with this statement ($n = 231$), while 15 disagreed, and 46 neither agreed nor disagreed completely. The primary reason for agreement was the belief that they would find a job that they would enjoy doing ($n = 74$). Other reasons reported were financial stability ($n = 31$), personal effort to find that type of employment ($n = 19$), choosing the correct type of career ($n = 18$), and being well positioned because of their education ($n = 12$). There were varied reasons for disagreement, such as seeing work as stressful, or wondering how a job will lead to a fulfilling life.

**Future Outlook.** Participants were directed to think about the type of life they wanted to live in the future and asked two questions: 1. “What are the most important components needed to live that type of life?” And 2. “Do you have the freedom to live that type of life? Why or why not?” Concerning the first question, 171 of the responses centered some element of finances (e.g., financial stability, money, ability to purchase things) as a necessary component to living their envisaged life. Many of the participants indicated that money was the mechanism for obtaining other important components (e.g., safety, security, leisure), while others saw financial stability as a way of simply meeting basic needs and removing the stress or burden of worrying about finances. One participant said:
“I just don't want to have to worry. I want to be able to pay the bills, get healthy food on the table, not be in a bind if something unexpected happens, etc. In an ideal world I'd have some extra money for myself too because right now I just work to survive and I have to say no to a lot of things that I want.”

Having sufficient social support through family and friends was reported by 99 participants, and having a career or a stable job by 75. Other components included a romantic relationship \((n = 39)\), education \((n = 36)\), health \((n = 35)\), happiness \((n = 33)\), persistence or hard work \((n = 27)\), travelling and other types of entertainment \((n = 21)\), and comfort or freedom from stress \((n = 17)\). Regarding the second question, 164 indicated agreement, citing social support \((n = 48)\), hard work or personal responsibility \((n = 25)\), and education \((n = 23)\) as to why they were free to live that type of life. Of the 77 who disagreed with the statement, 25 specified their financial state as the barrier to living that life, and 12 reported their concern over their independence. Neither complete agreement nor disagreement characterized 41 of the responses.

A majority of participants agreed with the statement that “Sacrificing free-time now will benefit me in the future” \((n = 195)\) with many reflecting the sentiment of the question by claiming some form of hard work pays off \((n = 61)\). Another large group mentioned their education as a key example of a sacrifice for future gain \((n = 54)\). Primary reasons for disagreement \((n = 38)\) were the belief that one should live in the moment \((n = 9)\), the importance of taking time for breaks and enjoyment \((n = 9)\), and the maintenance of mental health \((n = 8)\). Neither agree nor disagree completely described 59 of the participants.
Lastly, given the dynamic state of the world, participants were asked to respond to the following question: “The world is facing many changes (e.g., globalization, inflation) and several global threats to human welfare (e.g., climate change, COVID-19). How does this influence your confidence about your future both personally and financially?”.

The prevailing response concerned finances, with great fear over inflation (especially in the housing market), the cost of living, and the state of the economy ($n = 139$). A quote from one of the participants exemplifies this sentiment:

“Inflation is something that will cost a lot of people my age the ability to own a home. As someone who works hard at their minimum wage job, it isn't enough. Most people my age have two jobs and still find it difficult to find a decent place to live at an affordable price. I can speak for many people when I say that young people's confidence in the future is pretty low... sadly.”

Many responses pertained to a feeling of lacking security ($n = 55$), such as seeing everything as changing, seeing changes as out of their control, feeling nervous or anxious, and a general sense of uncertainty. Several respondents expressed very dystopian and pessimistic outlooks ($n = 41$) some describing the world as declining or hopeless, and some wondering why they should bother saving money. Other responses discuss the COVID-19 pandemic and a general fear of illness which was reported by 25 participants, and fear for future generations ($n = 24$) with some participants questioning whether they would be able to support a family, and others apprehensive about bringing children into this type of world. A small group ($n = 18$) reported feeling not worried about their future.
CHAPTER 4

Discussion

First, the discussion addresses the support for the hypotheses from the present analyses, followed by a summary of the findings from the exploratory questions before turning to their relevance and correspondence with the past literature. This study explored the connection between FWB and both health behaviours and social participation, and tested whether health behaviours and social participation could account for some of the variance between FWB and OWB. To the first aim, the correlational analyses offer support for a moderate connection for both associations proposed, endorsing both hypotheses 1 and 2. They were further supported by the frequent occurrence of financial barriers, such as the high price of healthy foods or lacking the financial resources as obstacles to living a healthy life, as a determinant of being able to participate in desired activities. It was demonstrated that students living with their parents had greater FWB than those who were in other living situations thus offering support for hypothesis 3. The correlation analysis failed to establish support for hypothesis 4 which anticipated a negative relation between the number of hours a student worked and their OWB; however, students did report feeling drained or stretched thin with working many hours and being a student. Regarding the second aim, the results of the mediation analysis suggest that health behaviours and social participation do help to explain the relation between FWB and OWB, supporting both hypothesis 5 and hypothesis 6. Based on the responses of participants, there were several financial obstacles to students’ engaging in healthy behaviours.
The exploratory questions rendered some interesting insights. Understanding financial pressures adds context to the overall picture of FWB for students. Concerns over inflation were voiced by many of the participants, expressing a great deal of uncertainty and worry about how it would impact their future, specifically, the rising costs of purchasing a home. This was echoed in the responses of the large majority that did not believe they would be able to buy a home in a reasonable time frame. Most students were fairly confident in their ability to obtain a job that would provide security and would lead to a fulfilling life with a resounding assuredness that their education would get them there. Similarly, students mostly agreed that the sacrifices they were making today would pay off in the future. When asked what is necessary to live a fulfilling life, students reiterated many of the themes found within this study, such as finances, social connection, and health, and they generally believed that they had the freedom to actualize that life. Perhaps not surprisingly, the factors influencing students’ confidence in their future reported most often revolved around finances.

This study upholds the significance of FWB to that of OWB that has been found in previous studies (Hassan et al., 2021; Lewis et al., 2007; Netemeyer et al., 2018; Weinstein & Stone, 2018) and offers further and more refined evidence for the connection between FWB and health behaviours (Du et al., 2021; Gomes et al., 2020; Nelson et al., 2008; Shi et al., 2019), in addition to demonstrating that it is a potential mediating factor between FWB and OWB. The connection of FWB to social participation has been supported by previous research (Corman et al., 2012; Weinstein & Stone, 2018; Yeo & Lee, 2019). The mediating effect between FWB and social participation is a novel finding comparable only to Yeo and Lee (2019) wherein social capital mediated the
relation between FWB and life satisfaction (bridging social capital sharing the element of community participation). Similar to Lewis et al. (2007) students living away from their parents did report lower FWB. The connection between role conflict and students’ well-being proposed by Lenaghan and Sengupta (2007) was certainly evident in students’ responses. Although the number of hours students worked did not predict their OWB, the theme of role conflict was a diffuse finding across many of the open response questions. Students expressed this conflict in several different ways. Most predominantly as an obstacle to living a healthy life, many identified with the theme labelled time availability, which encompassed lacking time, having conflicting roles as both a student and employee, being unable to find a balance or manage time effectively, and having a busy schedule. Secondly, as an incongruence between their social lives and academic or professional lives wherein students felt that they were missing out on social activities and sometimes sacrificing them either for educational purposes or for future gain.

These findings suggest that FWB may be linked to behaviours that are widely believed to be important for one’s OWB (viz. health behaviours and social participation). Post-secondary students come to education from diverse financial and living situations, and parental support play an important role in a student's FWB by providing security. Those who do not have parental support experience different financial pressures and barriers. This discrepancy is manifest in the students’ environment, shaping their homelife through their expenses, responsibilities, and independence, which influence their decisions to work and their capability to save money. Furthermore, the perception of one’s financial situation may deter students from engaging in healthy behaviours and participating socially, leading to a decrease in OWB. This suggests that students may
weigh choices (a) consciously, based on whether they have the financial capital to engage in a behaviour; and unconsciously, forming habits and feeling pressures to act in ways that optimize their security and livelihood. Essentially, if one feels that they must focus on finances to subsist, they will prioritize this over less essential (but evidently critical) behaviours such as exercising or socializing.

The construct of FWB is a subjective account of one’s financial position, therefore, moving beyond objective measures such as income or SES. This broadens the understanding of how economics impact OWB, suggesting that it is not just poverty or low-income creating functional barriers to OWB, but one’s perception influencing their actions. Consequently, the impact of FWB may not be bound to those in poverty, but exist across all ranges of income at differing levels.

These findings most strongly represent that of Canadian students in higher education; but may also be predictive of potential associations in other age groups or localities, and further research would be required. It is certainly likely that the findings of this study (those that are not germane only to students) would emerge in the general public—speculatively more substantial than the relation found herein given the broader range of financial situations. Furthermore, students are subject to an array of different environmental factors. The range of unique circumstances can not be accounted for in one single study. Lastly, the participant pool may not be representative of all students in higher education since students are chiefly drawn from psychology courses, and samples are predominantly female. This limits the ability of the results to be applied to the wider population, although, this is fairly typical of convenience samples.
FWB may be more than an outcome, or domain, of well-being; it is certainly advantageous in its own right, but it may also be predictive of other important determinants of OWB. Though this analysis does not prove causality, it does lend support to the claim that the range of influence of FWB is widespread, encouraging further investigation into its consequences. Explicating the personal experience of financial stress and security demonstrates how financial stress and lack of financial security can be harmful to individuals across a range of income levels accentuating the dire need for further research and ultimately financial reform.

While no panacea exists that will ameliorate these flaws, a few practicable applications can be drawn from this research. Governments and policymakers might consider how the pressures and insecurities of finances might be mitigated by redistribution of wealth, or by bolstering a sense of security through enhancing social safety nets (e.g., welfare). Institutes of higher education need to address how their operation, in tandem with society, engender norms of self-sacrifice, feelings of role conflict, and strain on students by restructuring course demands and financial support systems. It is also important that researchers and post-secondary institutes consider how the impact of financial insecurity may differ at the individual level, differing based on one’s culture, background, and level of support. Post-secondary institutes can also consider how they can influence positive health and social behaviours through wellness campaigns, academic policy changes, collegiate sports, or campus design. Similarly, urban planning initiatives and health interventions could be directed at social and health-based behaviours. These initiatives must acknowledge the barriers that finances present that are specific to their community and attempt to remove them to be effective.
Limitations

Given the correlational design of this study, causality cannot be inferred. There is potential that the relations examined herein have a bi-directional relationship or are being influenced by third variables. The COVID-19 pandemic has caused a significant change in the day-to-day life of Canadian citizens, specifically in their work and social lives. Though the measure of COVID-19 impact was not correlated to the independent variables, and only the worry time subscale was related to OWB, the widespread consequences of lockdown measures, restrictions, closures, and social distancing likely impacted the assessment of social participation most notably, but also the measures of FWB, OWB, and health behaviours. It could be that the psychological impact of the COVID-19 pandemic (which focuses on emotional distress and the amount of worry time) was not the best control, and that a measure which identified changes in behaviour due to the pandemic would have been more precise at parceling out its unique role in altering students’ behaviours. Future research should seek to use an alternative measure of social participation, given the low internal consistency of the instrument, and perhaps examine the utility of the construct compared to other related terms such as social support, social interaction or civic participation.

The lack of prior research examining the specific link between FWB with health behaviours and social participation also presents a limitation as the present study explores relatively new ground and therefore does not have a foundation by which to follow in examining the phenomenon. This creates greater potential for the influence of unidentified confounds and incidental errors that will only be exposed through the process of researching this phenomenon more extensively. The nature of self-report also
presents a limitation as participants may have provided biased responses. For example, concerning any of the measures included in this study, participants may have recalled more recent activities and therefore misrepresented the average or typical experience of the behaviour in question.

Many students did not know or did not report their household income, and the sample’s distribution of reported social class was not very diverse. This limited the ability to examine the strength of the proposed associations at different levels. Future research should investigate how FWB may impact individual’s health behaviours, social participation, and OWB differently depending on their income or social class.

**Conclusions and Implications**

Changes in the regional and global socio-political economy have led to neoliberalism becoming the dominant ideology around the world. This change must be analyzed critically as the reintroduction of capitalist ideals, coupled with the individualization of social problems and dismantling of a variety social supports, has profound societal and psychological consequences. Currently, livelihood is bound to financial prosperity as exchanging labour for wages provides the monetary capital (and/or credit) to access essential goods and services. For a society that appears to have moved beyond mere survival, it is disgraceful that some are fighting to subsist, unable to meet their basic needs, while others live lavishly and securely. Importantly though, the repercussions of a monetarily-based subsistence system are not restricted to low income and the functional barriers that it presents. As this study demonstrates, the perception of one’s financial state is linked to behavioural patterns and OWB across all ranges of income, not solely at the lowest extreme.
The fact that finances are connected to health behaviours and social participation indicates that there is a problem with the current financial system, as it is creating conflicting motivations for citizens to achieve a healthy and prosperous life. Students consistently reported financial problems interfering with other aspects of their lives, leaving many with a choice between financial responsibility or their health and friends. Many students reported spreading themselves thin attempting to meet their educational goals, meet their expenses, and lead a healthy, social life. These findings suggest that one’s perception of their financial position, whether it be immediate or concerning the future, may influence behaviour in other life domains. The results model this phenomenon by demonstrating that lower FWB is associated with less frequent health behaviours and social participation while higher FWB predicts a greater occurrence of these behaviours. Moreover, the present findings offer a proposed mechanism to explain how FWB ultimately impacts OWB, suggesting that it is, in part, variation in financial security and stress influencing health behaviours and social participation that leads to diverse well-being outcomes.

Financial systems are related to peoples’ perceptions of their security and in turn their behaviours, meaning that the economy is not an inconsequential medium for the exchange of resources, it is a catalyst for social competition for scarce resources with far reaching consequences. Are these inevitable outcomes from any system of economic organization, or are there changes or alternative systems that could correct these deficits? To further understand the systemic influences of the current monetary system on individual motivations and behaviours, more work needs to be done to investigate how livelihood is contingent on money, and in what ways perceptions of FWB detract from
the fulfillment of a flourishing life. Ultimately, what is needed is a pursuit of knowledge that leads to positive change in how people subsist as society advances, continuously seeking to address barriers and improve shortfalls. A society that lacks hope and security for the future is not flourishing.
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Appendix A

Demographic Survey

1. If you had to select ONE response that best describes your current gender identity, what would it be?
   a. Man/boy
   b. Woman/girl
   c. Indigenous or other cultural identity (e.g., two-spirit)
   d. Non-binary, genderqueer, agender, or a similar identity
   e. Other: ________________

2. What is your age in years?
   a. Please specify: ________________
   b. Prefer not to answer

3. Which categories describe you? Select all that apply to you:
   a. White or European Canadian
   b. Indigenous (Metis, Inuit, First Nations)
   c. East Asian, Pacific Islander or Asian Canadian
   d. Middle Eastern or Middle Eastern Canadian
   e. Latin, Central or South American or Latin Canadian
   f. Other or multiple race, ethnicity, or origin, please specify:
      ________________________

4. Are you currently in a romantic relationship with a partner or partners?
   a. No
b. Yes, one partner

c. Yes, I have multiple partners

d. Prefer not to answer

5. Which social class group do you identify with?

a. Poor

b. Working-class

c. Middle class

d. Affluent

e. Prefer not to answer

6. On average, how many hours do you work a week, including time at an office, in the field, or working at home?

a. Please specify: ________________

b. Prefer not to answer

7. What is your current living situation?

a. Living with parents

b. Living alone

c. Living with a partner

d. Living with roommates

e. Other: _________________

8. What is your household income?

a. Below $10,000

b. $10,000 - $25,000

c. $25,000 - $50,000
d. $50,000 - $100,000

e. $100,000 - $150,000

f. Over $150,000

g. I don’t know

h. Prefer not to answer

9. Are you currently receiving student loans to pay for your education?

a. Yes

b. No

c. Prefer not to answer
Appendix B

Multidimensional Subjective Financial Well-Being Scale

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I am satisfied with the way I manage my money</td>
</tr>
<tr>
<td>2.</td>
<td>My financial situation is better than my peers’</td>
</tr>
<tr>
<td>3.</td>
<td>I have enough money to pursue my passions</td>
</tr>
<tr>
<td>4.</td>
<td>I am satisfied with the way I spend my money</td>
</tr>
<tr>
<td>5.</td>
<td>I have less money than I need (reverse coded)</td>
</tr>
<tr>
<td>6.</td>
<td>I cannot complain about my financial situation</td>
</tr>
<tr>
<td>7.</td>
<td>My financial condition is worse than my friends’ (reverse coded)</td>
</tr>
<tr>
<td>8.</td>
<td>I’m satisfied with how my life is going from a financial point of view</td>
</tr>
<tr>
<td>9.</td>
<td>Sometimes I do not have enough funds to buy the things I need (reverse coded)</td>
</tr>
<tr>
<td>10.</td>
<td>I am stressed daily because of my financial situation (reverse coded)</td>
</tr>
<tr>
<td>11.</td>
<td>In the near future, I will have enough money to carry my plans out</td>
</tr>
<tr>
<td>12.</td>
<td>I’m calm about my financial situation</td>
</tr>
<tr>
<td>13.</td>
<td>I feel I can handle my financial situation</td>
</tr>
<tr>
<td>14.</td>
<td>I cannot do some things with my friends, because I do not have the money to do</td>
</tr>
<tr>
<td></td>
<td>them (reverse coded)</td>
</tr>
<tr>
<td>15.</td>
<td>I have enough funds for everything I need</td>
</tr>
<tr>
<td>16.</td>
<td>I’m satisfied with my present financial situation</td>
</tr>
<tr>
<td>17.</td>
<td>I expect to be very satisfied with the financial situation that I will achieve thanks to my persistence</td>
</tr>
<tr>
<td>18.</td>
<td>My peers usually have more money available for free time activities than me</td>
</tr>
<tr>
<td></td>
<td>(reverse coded)</td>
</tr>
</tbody>
</table>
19. My current financial situation makes me feel at ease

20. The study/work path I have undertaken will allow me to achieve a satisfying financial situation

21. I have enough funds to enjoy my life

22. I am satisfied with the way I am preparing myself to reach my long-term financial goals (for example, to buy a car)

23. Sometimes I do not have the money to buy what I need (reverse coded)

24. I’m on the right track to meet my financial goals

25. I am satisfied with the way I manage my financial situation
Appendix C

The Warwick-Edinburgh Mental Well-Being Scale

1. I’ve been feeling optimistic about the future
2. I’ve been feeling useful
3. I’ve been feeling relaxed
4. I’ve been feeling interested in other people
5. I’ve had energy to spare
6. I’ve been dealing with problems well
7. I’ve been thinking clearly
8. I’ve been feeling good about myself
9. I’ve been feeling close to other people
10. I’ve been feeling confident
11. I’ve been able to make up my own mind about things
12. I’ve been feeling loved
13. I’ve been interested in new things
14. I’ve been feeling cheerful
Appendix D

*Healthy Activities Scales*

1. I make sure to get healthy nutrition.
2. To keep fit I try to stay in motion.
3. To sustain mental well-being, I try to do something good for myself regularly.
4. I regularly meet up with friends.
5. I try to avoid negative influences on my health, such as alcohol consumption and/or the use of drugs.
Appendix E

Social Participation Questionnaire

Below are some statements about various social behaviours. Select the option that indicates how often you perform that activity.

1. Interact with friends and family
2. Participate in religious or spiritual activities with others
3. Participate in social events in the community
4. Participate in volunteer or public activities
5. Go to parks in the community
Appendix F

COVID-19 Impact

1. I worry about the coronavirus all of the time.
2. I give too much time/thought to coronavirus.
3. I spend a lot of time thinking about coronavirus.
4. How afraid do you feel when you think about coronavirus?
5. How irritable do you feel when you think about coronavirus?
6. How sad do you feel when you think about coronavirus?
7. How preoccupied do you feel when you think about coronavirus?
8. How stressed do you feel when you think about coronavirus?
Appendix G

Exploratory Questions

1. What obstacles do you face in trying to live a healthy life?

2. What pressures do you experience when thinking about your finances?

3. The world is facing many changes (e.g., globalization, inflation) and several global threats to human welfare (e.g., climate change, COVID-19). How does this influence your confidence about your future both personally and financially?

Below are some statements. Consider them carefully and describe why you do or do not agree with them.

4. School and/or work make me too tired to be physically active

5. I have the freedom to make healthy choices

6. I miss out on social activities I want to do because of my job and/or academics

7. I will be able to find a job that provides me security

8. I will be able to find a job that will allow me to have a fulfilling life

9. I will be able to purchase a home in a reasonable time frame

10. Sacrificing free-time now will benefit me in the future

Imagine the type of life you want to live now and, in the future, and then answer the following questions.

11. What are the most important components needed to live that type of life?

12. Do you have the freedom to live that type of life? Why or why not?
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