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Covid or not Covid? Psychological Distress and Entrepreneurial Intentions among Canadian Workers during the Pandemic

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Abstract

Triggering events can be associated with entrepreneurial intentions. Using data from a survey on the mental health of Canadian workers carried out in the context of the COVID-19 pandemic crisis, we specifically test the association between entrepreneurial intentions and psychological distress, along with other individual demographic and personal-level measurements such as risk-aversion, and financial concern. Our results substantiate a positive relationship between entrepreneurial intention and individual psychological distress, as well as financial deterioration measured at the household level. Taken as a whole, our contribution helps to feed a discussion on the links between mental health and entrepreneurship in a process of personal resilience and, more generally, on well-being as a motivational factor in the entrepreneurial process.

Keywords: well-being; psychological distress; entrepreneurial intention; COVID-19.

JEL-Codes: D91, I15, L26.

1. Introduction

The COVID-19 pandemic is far more than a health crisis. The pandemic has affected not only societies but also their economies on a large scale. To restrain the spreading of the COVID-19 virus, several governments worldwide have implemented social distancing measures, lockdowns and curfews on their territories, with dreadful economic consequences, particularly on the labor market (OECD, 2020a). Considering Canada, a country to which the empirical analyses in the present paper will refer, by April 2020, 5.5 million workers had been impacted by the crisis, of which 3.0 million lost their job and 2.5 million experienced work absences related to COVID (Statistics Canada, 2020b). According to the Canadian Labour Force Survey, the Canadian national unemployment rate hit 13.7% in May 2020, reaching an unprecedented record (Statistics Canada, 2020b).

To limit the negative economic impact of job losses and the deterioration of financial conditions among those directly affected, governments decided, often concurrently, to adopt temporary policies to support workers and businesses (OECD, 2020b, 2020c). In Canada, the federal government implemented the Canadian Emergency Benefit program, which guaranteed taxable income of up to CAD 2,000 per month for people who had lost their jobs or had suffered loss of income related to COVID-19 (Government of Canada, 2021a). Also, Canada has developed wage subsidy programs to support businesses in their efforts to keep their employees employed (Government of Canada, 2021b). Other complementary measures have also been promulgated by the provincial governments.

Beyond job losses, absences from work and financial deterioration affecting several people, health conditions have also led to more or less substantial changes in working conditions. For some workplaces, the sanitary conditions have created strong constraints on the organization of work. For others, teleworking has become the norm, sometimes requiring workers to work from home, in variable environmental conditions impacting notably work-family balance and the mental health of workers (Escudero-Castillo et al., 2021). Although in some cases this upheaval in work habits may have contributed to an improvement in the quality of life and well-being of workers, in the majority of cases, it has instead led to a deterioration contributing to psychological distress (Evanoff et al., 2020; Stephan et al., 2021; Vanhaecht et al., 2021; Xiao et al., 2021; Galanti et al., 2021).

Such a context of sudden decline in working conditions and workers' quality of life may lead some workers to consider changing their professional career by starting a business or becoming self-employed. According to Shapero and Sokol (1982), an acknowledged classic in entrepreneurship literature, the so-called "entrepreneurial event", i.e. starting a business, can be related to a positive or, more likely, negative triggering antecedent. Interpreting and applying the argument, one comes quite easily

to suggest the COVID-19 pandemic crisis might be considered as a possible antecedent of an individual's entrepreneurial intention and behavior. Moreover, even if economic conditions may appear relatively uncertain in times of crises and disrupting events, the latter can also lead to the emergence of new opportunities, which can cause people to seek to exploit them (e.g. Devece et al., 2016; Peris-Ortiz et al., 2014). It therefore appears quite relevant to explore in more detail potential entrepreneurial dynamics among workers in this radically disrupted period.

In Canada, without any surprise, COVID-19 initially negatively impacted the self-employment rate (Statistics Canada, 2021). Although self-employment rates (approximately 15%; Statistics Canada, 2022) were stable from February 2020 to December 2020, the absolute number of self-employed Canadians was overall 6.8% lower in December 2020 than it was before the pandemic. However, there had been a resurgence in the number of self-employed workers in October 2020 (Statistics Canada, 2020a, 2021). This suggests that some workers decided to start (or restart) self-employment ventures despite the pandemic, perhaps by necessity or by opportunity (Fairlie and Fossen, 2020); and it is possible that, at the same period, some workers had intentions to venturing a business even after the state of health emergency was announced and preventing health measures were imposed. These ventures may contribute to workers' resilience and post-shock recovery (Monllor and Murphy, 2017).

Important questions must be answered in order to increase our knowledge of self-employment ventures and intentions in exceptional situations. These questions revolve around an adverse context, that of the pandemic, in which workers, considering their personal situation, may wonder about their future and, more particularly, their professional future. Since pandemic working conditions may have negatively influenced workers' mental health, going as far as individual psychological distress, we propose to explore the latter as possible antecedent of entrepreneurial intention, along with other individual demographic and personal-level measurements such as risk-aversion, and financial concern.

We analyzed data from a survey on mental health carried out among French-speaking Canadian workers between October and November 2020. In the next section, we briefly present some insights derived from previous research on well-being, psychological distress and entrepreneurship. We then explain the methodological aspects of our exploratory research. The fourth section is devoted to the presentation of the results. We then conclude by listing key takeaways, identifying limitations and presenting avenues for future research.

2. Well-being, psychological distress and entrepreneurship

Well-being is quite difficult to define precisely. It is, however, recognized to be a multidimensional concept (Prilleltensky et al., 2015). Using a broad perspective, Prilleltensky (2012, p. 2) offers a guiding definition: “a positive state of affairs, brought about by the simultaneous and balanced satisfaction of diverse objective and subjective needs of individuals, relationships, organizations, and communities”. In line with the World Health Organization’s (2020 [1948]) definition of health, well-being is far more than the mere absence of disease as it also includes positive aspects, such as one’s opportunities to function effectively on a daily basis and to self-actualize their potential (Vittersø, 2004). Within the realm of psychology, contemporary researchers point out that psychological distress is one aspect that is indicative of negative well-being (Karademas, 2007; Keyes, 2005). It refers to “symptoms of stress, anxiety and depression” (Viertiö et al., 2021, p. 2).

Some definitions provided, if we turn now to the treatment that well-being has been given in the entrepreneurship literature, it is clear that its study has gained significant momentum in recent years (Wiklund et al., 2019). The majority of contributions have focused on the causes and consequences of well-being on entrepreneurial activity among active entrepreneurs (Lerman et al., 2020; Wincent and Örtqvist, 2009; Uy et al., 2013; Lechat and Torrès, 2017; Stephan, 2018; Shir et al., 2019; Abreu et al., 2019; Wach et al., 2021). Recently, some studies have also examined the impact of the pandemic crisis on the mental health of business owners and self-employed people (Torrès et al., 2021; 2022; Wolfe and Patel, 2021).

A majority of studies examining the links between entrepreneurship and well-being have considered well-being as a dependent variable (Wiklund et al., 2019). And very few were interested in the role of well-being as an antecedent in the premises of entrepreneurial activity (intentions and/or start-up phase). However, one’s well-being level could also logically be considered to be an independent variable, i.e. as a psychological factor influencing entrepreneurial action.

Several studies have highlighted the role of positive emotions, which are signs of well-being as well as an integral part of its construction (Fredrickson, 2004), in several facets of entrepreneurial life (Baron, 2008) such as in the creativity and innovation processes (Baron and Tang, 2011, Perry-Smith and Coff, 2011), the evaluation of opportunities (Grichnick et al., 2010; Foo, 2011; Foo et al., 2015), entrepreneurial motivations (Jia and Zhang, 2018), or even the perception of risk (Sjöberg, 2007). However, while positive emotions are often linked to an increase in the creativity or productivity of individuals (Diener et al., 2020), negative emotions can also be influential. So, with regard to entrepreneurial intentions and the decision to start business, Doanh et al. (2021) have recently showed that fear and anxiety related to COVID-19 have negatively affected the entrepreneurial intentions of Vietnamese

university students. Contrastingly, Nikolaev et al. (2020) have reported that people in employment with a natural tendency to experience negative affects (negative dispositional affects), experience more dissatisfaction at work and, for this reason, are more likely to start an entrepreneurial adventure. Similarly, negative dispositional affects have been found to be related to higher likelihood of entering self-employment (Wiklund et al., 2019).

Our research aims to further the examination of the relations between negative emotions and the antecedents of entrepreneurial activity in the context of COVID-19. In particular, as mentioned earlier, we want to explore if and how psychological distress can be associated with business intentions among workers facing the pandemic context.

3. Research methodology

3.1. Participants and recruitment

Participants were recruited from a survey panel named LEO owned by the marketing firm, Léger Marketing. Participants were informed about the study by Léger Marketing and, if interested to participate, were directed to the 45-minute anonymous study survey on the Qualtrics platform. The marketing firm selected potential participants to invite based on age, gender and region so as to address population representativity.

In order to be eligible to participate in the survey, people had, based on self-reported information, a) to be 18 year old or more, b) be able to read and understand French as the survey was all in French, c) be working at least 20 hours per week at the time of the survey or to have been working at least 20 hours per week before the beginning of the COVID-19 pandemic state of emergency was declared in Canada (i.e., before March 2020). Both wage employed and self-employed people were considered to satisfy this last criterion.

Of the overall sample of 2148 participants who completed the survey, the following groups have been excluded from the present study: a) participants who reported they were self-employed before the COVID-19 pandemic started or b) participants with irrelevant answers to studying entrepreneurial intentions, e.g., a few participants who reported that they had started a business or initiated the process to start a business since the beginning of the pandemic but who also reported that they hadn't have the intention to start a business so far during the pandemic. The rationale for these exclusions was that we wanted to focus the analysis on examining entrepreneurial intentions specifically among those who were, at the time of the survey, wage employed or who had been wage employed before the pandemic, in order to get closer to a group of workers under the influence of the pandemic and explore factors

associated with intentions to start a business. The analytical sample was thus composed of 1,372 participants.

Participants from the analytical sample were, on average, 40.4-year-old ($SD=11.9$) and a vast majority were living in the province of Québec (98.9%). More than 60% were women (60.6%), 39.2% men and 0.2% non-binary or others. About two-thirds (66.3%) were in a relationship (married or civil law). While most were born in Canada (88.3%), 11.7% were immigrants (i.e., not born in the country). Almost half had a university degree (48.2%), 27.5% had a college degree. The remaining (24.3) had completed a high school degree or less. At the time of the survey, 90.4% were wage employed and 9.6% did not have a job in wage employment; of that proportion, 14.4% were, however, self-employed at that same moment (but they were not self-employed before the pandemic, as all participants who were self-employed before the pandemic had been removed from the analytical sample, see previous paragraph). Before the pandemic, in the analytical sample, 94% were wage employed, meaning that a proportion had lost their wage employment. More than a third (35.9%) were parents of children aged less than 18. Risk aversion levels were moderately high as the mean was 3.05 ($SD=1.13$) on a scale from 1 to 4 (see Covariates' measures below).

3.2 Variables and measures

Dependent variable

The dependent variable, i.e., the intention to start or to own a business, was measured using a question adapted from a previous study (Luc et al., 2018). The question presented in French (but translated to English here) read as: "Since the beginning of the COVID-19 crisis last March, have you, alone or with others, intended to start a new business or take over an existing business?". Participants could answer: "Yes", "No" or "I don't know". The variable was recoded to make it binary (Intention; No clearly identified intention) by merging the "No" and "I don't know" categories. Additional questions, using a similar format, were also asked and used for consistency check purposes, pertaining to whether or not participants had concretely initiated the process, during the pandemic, of starting a business, and whether or not they were actually self-employed at the time of the survey, but not before COVID-19 (i.e., meaning they would have started a business since the beginning of the pandemic, and therefore would have had an intention at some point during the pandemic).

Explanatory Variables

Two explanatory variables of interest were measured: psychological distress (as an indicator of negative well-being) as well as financial deterioration. The former was assessed using the validated French version of the Patient Health Questionnaire-4 (PHQ4; Kroenke et al., 2009), which measures the frequency of four anxiety and

depression symptoms (e.g., feeling nervous, anxious or on edge; feeling down, depressed or hopeless) over that last two weeks, on a scale from 1 (Not at all) to 4 (Nearly every day). Although it is brief, it has been shown to correlate with other established measures of mental health, to perform almost as good as longer versions of anxiety and depression instruments from the Patient Health Questionnaire, and to be a good screener for common mental health disorders (Kroenke et al., 2009). The average of the four items was used as an index of psychological distress at the time of the survey, treated as continuous in the analysis. The Cronbach's alpha was 0.88, indicating excellent internal consistency.

Financial deterioration was measured using two items. A first item, adapted from Pearlin et al. (1981), asked participant to rate the financial situation of their household as it was before the COVID-19 pandemic started (i.e., before March 2020) by choosing among four options: comfortable with extra (0), enough but no extra (1), have to cut back (2), and cannot make ends meet (3). The same question was asked a second time, but regarding their current household financial situation. As will be explained below, the first question (before COVID-19 version) was controlled for in the analysis while considering the current situation version, in order to represent financial deterioration in the model.

Covariates

Additional covariates were measured using standard questions so they could be controlled for in the models. This included: gender (recoded as: 1=women and non-binary; 0=men), year of birth, immigrant status (1=not born in Canada; 0=born in Canada), relationship status (1=in a married or civil law relationship; 0=single), parent of non-adult children status (1=parent of children less than 18 year old; 0: not parent of children that age), highest level of education (recoded as: 1=university degree; 0=college degree or less), wage employment (1=wage employment; 0=not wage employed) at the time of the survey. Risk aversion, which appears important to control for given previous research results suggesting it negatively influences self-employment entry, was also measured using an index based on participants' answers to three hypothetical income gambles following the questions used by Raffiee and Feng (2014) and based on the work of Barsky et al. (1997). The questions asked participants if they would accept to gamble, i.e., taking a new job, in scenarios that are moderately, less and more risky in terms of potential positive and negative outcomes. The scoring procedure, provided by Raffiee and Feng (2014), yields a four-point index from weak (1) to strong (4) risk aversion, treated as continuous.

3.3 Analysis

Univariate correlations between all of the study variables were examined, followed by a logistic regression model in which all covariate and explanatory variables of interest were included as predictors of the probability of reporting an entrepreneurial intention

during the COVID-19 pandemic. In logistic regression, the logit link function is used to link the probability of the event (self-employment intention in our case) to the linear function of the covariates and explanatory variables.

4. Results and discussion

4.1 Preliminary analysis

Based on descriptive analysis, it appears that only a small subsample indicated they have had the intention to start a business since the beginning of the COVID-19 pandemic (12.3%), with the remaining participants not reporting such intentions (87.7%). With regard to psychological distress ratings, based on published cut-offs (Kroenke et al., 2009) for the PHQ4, 48.8% reported none-to-minimal distress (index score between 1.00 and 1.50), 30.5% reported mild levels of distress (between 1.75 and 2.25), 12.8% reported moderate levels of distress (between 2.50 and 3.00) and 8.0%, severe levels of distress (between 3.25 and 4.00). When asked to assess their household financial situation before the pandemic, 11.2 % declared they needed to reduce their expenses or that they were not able to make ends meet. When asked the same, but considering the situation at the time of the survey, this percentage increased to 18.9%.

Table 1 shows the univariate correlations between all the study variables. As reported, the variables most strongly related with entrepreneurial intention were: risk aversion (negative relationship), negative appraisal of the current financial situation (positive relationship), currently being a wage employee (negative relationship), psychological distress (positive relationship) and being an immigrant (positive relationship). Except for current and before COVID-19 appraisal of the household financial situation, which were rightfully strongly correlated (0.63), all correlations among the explanatory variables and controls were below 0.31 and most were much lower, indicating relative independence of the explanatory variables and controls. This supports that multicollinearity would not be an issue when including all these variables as predictors in the logistic regression model. Multicollinearity among the logistic regression predictors was further verified by examining the variance inflation factors (VIFs). None of the VIFs were larger than 1.87, which is indicative of no multicollinearity problems that are severe enough to warrant corrective measures.

Table 1. Univariate correlations between study variables

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Intention to start a self-employed business: Yes (vs. no clear intention)											
2. Psychological distress	.15***										
3. Negative financial situation appraisal (before COVID-19)	.10***	.16***									
4. Negative financial situation appraisal (current)	.17***	.31***	.63***								
5. Gender: Women or non-binary (vs. men)	-.10***	.14***	.06*	.06*							
6. Year of birth	-.13***	-.22***	.02	-.02	-.22***						
7. Immigrant status	.15***	-.03	.07*	.04	-.06*	-.03					
8. In a relationship	.05	-.11***	-.09**	-.04	-.07**	.08**	.02				
9. Parent of children less than 18	.11***	-.05	.07**	.08**	-.07*	.00	.10***	.30***			
10. Educational level: University (vs. college or less)	.05	-.07**	-.16***	-.18***	-.02	-.02	.17***	.04	.10***		
11. Currently a wage employee (vs. not)	-.16***	-.12***	-.02	-.13***	-.04	.05	-.02	.01	-.02	.02	
12. Risk aversion	-.18***	-.10***	-.04	-.11***	.12***	.04	-.11***	.04	.00	.00	.09**

Note: The correlation analysis was conducted with 1,356 participants due to missing values for some of the variables.

* p<0.05; ** p<0.01; *** p<0.001.

4.2 Main findings

Table 2 reports the results from the estimated logistic regression model including all explanatory variables of interest as well as covariates as predictors of the likelihood of reporting entrepreneurial intention since the COVID-19 pandemic. All considered covariates are found to be significant predictors, except “being in a relationship” and educational level, the latter being marginally significant.

With regard to the two explanatory variables of interest, psychological distress is found to be a significant positive predictor of entrepreneurial intention, with an increase of one unit on the psychological distress measure being associated with a 1.46 fold increase in the odds of reporting such intention. With regard to financial deterioration, after controlling for one’s appraisal of their household situation before the pandemic, negative appraisal of the current situation is found to be positively associated with entrepreneurial intention, with every increase of one unit on the negative financial appraisal scale being associated with a 1.45 fold increase in the odds of reporting such intention.

Table 2. Logistic regression model of the predictors of entrepreneurial intention.

Predictors	B	S.E.	Odds ratio
Psychological distress	.38**	.12	1.46
Negative financial situation appraisal (before COVID-19)	.13	.15	1.14
Negative financial situation appraisal (current)	.37**	.13	1.45
Gender: Women or non-binary (vs. men)	-.87***	.19	0.42
Year of birth	-.04***	.01	0.96
Immigrant status	.78***	.24	2.18
In a relationship	.31	.21	1.37
Parent of children less than 18	.51**	.20	1.66
Educational level: University (vs. college or less)	.36 ^t	.19	1.44
Currently a wage employee	-.99***	.24	0.37
Risk aversion	-.32***	.08	0.31

Note: The regression analysis was conducted with 1,356 participants due to missing values for some of the variables.

^t p<0.10; *p<0.05; **p<0.01; ***p<0.001.

Finally, we can also briefly note that estimates for covariates reveal signs consistent with expectations based on the literature. Year of birth (i.e., being younger) is negatively associated with entrepreneurial intention. This is also the case for being a woman or identifying with another gender identity, and being relatively more risk-averse. Being an immigrant or being parent of children less than 18 years old were associated positively with entrepreneurial intention. Additionally, it is notable —this is important for the discussion that follows— that being currently a wage employee (versus not) enters as well into a negative relationship with entrepreneurial intention.

4.3. Discussion

Given that our research is exploratory and the fact that the data are cross-sectional, it is difficult to draw firm findings from our study. Nevertheless, it raises several issues that we discuss in this section.

Psychological distress and entrepreneurship as a resilience process.

As the levels of psychological distress observed in our study are very probably higher than the average rate of the population before COVID-19 (Bierman and Schieman, 2020), it appears reasonable to posit that COVID-19 has increased the perception of psychological distress among the participants of our study. Concomitantly, our findings suggest that psychological distress may positively influence entrepreneurial intention, which could lead to consider thinking about being an entrepreneur and eventually moving towards an entrepreneurial trajectory as a possible resilience path for people in psychological distress. If correct, this reasoning appears to contradict the preliminary results obtained by Doanh et al. (2021) on a sample of Vietnamese students for whom fear and anxiety related to COVID-19 negatively influenced entrepreneurial intentions. Nevertheless, individuals in our survey being employed before COVID-19, it is possible that this apparent contradiction can be explained essentially by their conditions of employment and the occurrence of work-family conflicts among the people studied. Several contributions have indeed established a link between job satisfaction and psychological distress (e.g. Amati et al., 2010; Ghawadra et al., 2019; Pepe et al., 2021). Psychological distress could be associated with the perception of lower job satisfaction, which would in turn stimulate entrepreneurial intentions. This hypothesis is in line with the work of Nikolaev et al. (2020) on the effect of dispositional tendencies to experience negative emotions on entrepreneurial intentions.

Financial deterioration and necessity entrepreneurship

According to our results, the greater the deterioration in the financial situation of the respondent's household, the higher the probability of having entrepreneurial intentions. From this, we may hypothesize that, for some people, the intention to be entrepreneurial is motivated by the desire to make up for a drop in income that threatens the financial situation of their household. For those people, it therefore seems that the chosen trajectory was not to seek another job or to supplement an existing wage income with a complementary job as employee, but to start an entrepreneurial venture. This could be explained by, among other factors, the fact that some of those people have few skills to value on a highly competitive labour market (Poschke, 2013). Another possible explanation would be that some people have suffered a temporary layoff and are trying in the meantime to entrepreneurially exploit their skills before returning to their job. Yet another possibility would be that, for some of those people, the loss of income being only partial, they are trying to begin a process

of work hybridization combining their activity as an employee and as a self-employed worker (Luc et al., 2018).

Job loss and opportunity entrepreneurship

Our study suggests that having lost one's wage employment after the state of health emergency has been declared by Canadian public authorities may increase the probability of having an entrepreneurial intention. This result may seem obvious on first reading, but when it is analysed in the light of the other variables used in the model, it is not that obvious. Since we are controlling for financial deterioration, it instead suggests that the effect of job loss, if any, cannot be confused with the worsening of financial conditions. In Canada, people who had lost their jobs or were unable to earn job-related income due to COVID-19 were able to benefit from a financial allowance of up to \$2,000 per month. This support measure, called the Canadian Emergency Response Benefit (CERB), made it possible to limit the effects of the loss of professional activity on household income. The CERB might explain the relatively low correlation (-0.13) between the variable "Currently a paid employee" and the variable "Negative financial situation appraisal (current)". The reasoning leads us to infer that there is a net effect of job loss on entrepreneurial intentions and, for most people for whom job loss is increasing the probability of having entrepreneurial intentions, this might be attributed more to the job loss itself than to the financial deterioration it causes. A plausible explanatory hypothesis would be then to consider that for those people, the job loss was a shock that activated a latent desire to start a business (Källner and Nyström, 2018). In a way, the COVID-19 pandemic and its economic consequences would have triggered the opportunity to be entrepreneur.

5. Conclusion

Besides the fact that the COVID-19 pandemic has had, and still has, worldwide dramatic economic and social consequences, it is profoundly changing the working conditions of many people. It has shaken the budget of many households and may have affected the mental health of large parts of the population. Given the situation, one can expect various human reactions in various domains. In particular, this disrupted context may act as the impetus for workers to reconsider, whether by choice or by default, their professional occupations. And why not become an entrepreneur?

With this study, we proposed to test psychological distress as a possible antecedent of entrepreneurial intention, along with other individual demographic and personal-level measurements such as risk-aversion, and financial concern. Our findings suggest that psychological distress, job loss and household's financial deterioration *positively* influence entrepreneurial intention among people that were in employment before the state of health emergency was declared by Canadian public authorities.

Beyond these challenging results, our contribution helps to feed a discussion on the links between mental health and entrepreneurship as a personal resilience process.

In the dualist opportunity/necessity categorization of entrepreneurship motives, the necessity-driven entrepreneur is considered to be “pushed” by the lack of satisfactory job options or by the desire to avoid unemployment, whereas the opportunity-driven entrepreneur is “pulled” by the exploitation of a business opportunity. Our study suggests that this categorization may be too narrow to account for the diversity of motivational factors that could influence the entrepreneurial process and its dynamics. In particular, our study highlights the importance of advancing research on well-being as a factor influencing the entrepreneurial process.

This study should be considered exploratory. We also recognize some limitations. In particular, results are derived from cross-sectional and retrospective data. They do not allow to compare people’s entrepreneurial intention through time. The methodology was carefully chosen based on the type of data available. However, the results obtained cannot strictly confirm the existence of causal links and must be cautiously interpreted. Future studies are requested in this regard (Sufyan et al., 2021). We can also add that this study has left aside many questions concerning the economic and social policy measures that the situation calls for. Nevertheless, we believe our analysis has provided some important initial empirical findings on the antecedents of entrepreneurial intention that specifically apply during the COVID-19 pandemic.

References

- Abreu, M., Oner, O., Brouwer, A., & Van Leeuwen, E. (2019), "Well-being effects of self-employment: A spatial inquiry", *Journal of Business Venturing*, 34(4), p 589-607.
- Amati, M., Tomasetti, M., Ciuccarelli, M., Mariotti, L., Tarquini, L.M., Bracci, M., Baldassari, M., Balducci, C., Alleva, R., Borghi, B., Mocchegiani, E., Copertaro, A., & Santarelli, L. (2010), "Relationship of job satisfaction, psychological distress and stress-related biological parameters among healthy nurses: A longitudinal study", *Journal of Occupational Health*, 52(1), p 31-38.
- Baron, R.A. (2008), "The role of affect in the entrepreneurial process", *Academy of Management Review*, 33(2), p 328-340.
- Baron, R.A., & Tang, J. (2011), "The role of entrepreneurs in firm-level innovation: Joint effects of positive affect, creativity, and environmental dynamism", *Journal of Business Venturing*, 26(1), p 49-60.
- Barsky, R.B., Juster, F.T., Kimball, M.S., & Shapiro, M.D. (1997), "Preference parameters and behavioral heterogeneity: An experimental approach in the health and retirement study", *Quarterly Journal of Economics*, 112(2), p 537-579.
- Bierman, A., & Schieman, S. (2020), "Social estrangement and psychological distress before and during the COVID-19 pandemic: Patterns of change in Canadian workers", *Journal of Health and Social Behavior*, 61(4), p 398-417.
- Devece, C., Peris-Ortiz, M., & Rueda-Armengot, C. (2016), "Entrepreneurship during economic crisis: Success factors and paths to failure", *Journal of Business Research*, 69(11), p 5366-5370.
- Diener, E., Thapa, S., & Tay, L. (2020), "Positive emotions at work", *Annual Review of Organizational Psychology and Organizational Behavior*, 7, p 451-477.
- Doanh, D.C., Thang, H.N., Nga, N.T.V., Van, P.T., & Hoa, P.T. (2021), "Entrepreneurial behaviour: The effects of the fear and anxiety of Covid-19 and business opportunity recognition", *Entrepreneurial Business and Economics Review*, 9(3), p 7-23.
- Escudero-Castillo, I., Mato-Díaz, F.J., & Rodriguez-Alvarez, A. (2021), "Furloughs, teleworking and other work situations during the COVID-19 lockdown: Impact on mental well-being", *International Journal of Environmental Research and Public Health*, 18(6), article 2898.
- Evanoff, B.A., Strickland, J.R., Dale, A.M., Hayibor, L., Page, E., Duncan, J.G., & Gray, D.L. (2020), "Work-related and personal factors associated with mental well-being during the COVID-19 response: Survey of health care and other workers", *Journal of Medical Internet Research*, 22(8), article e21366.

- Fairlie, R.W., & Fossen, F.M. (2020), "Defining opportunity versus necessity entrepreneurship: Two components of business creation", In: Polacheck, S.W. & Tatsiramos, K. (Eds.), *Change at Home, in the Labor Market, and On the Job (Research in Labor Economics, Vol. 48)*. Bingley, UK: Emerald Publishing Limited, pp. 253-289.
- Foo, M.D. (2011), "Emotions and entrepreneurial opportunity evaluation", *Entrepreneurship Theory and Practice*, 35(2), p 375-393.
- Foo, M.D., Uy, M.A., & Murnieks, C. (2015), "Beyond affective valence: Untangling valence and activation influences on opportunity identification", *Entrepreneurship Theory and Practice*, 39(2), p 407-431.
- Fredrickson, B.L. (2004), "The broaden-and-build theory of positive emotions", *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*, 359(1449), p 1367-1377.
- Galanti, T., Guidetti, G., Mazzei, E., Zappalà, S., & Toscano, F. (2021), "Work from home during the COVID-19 outbreak: The impact on employees' remote work productivity, engagement, and stress", *Journal of Occupational and Environmental Medicine*, 63(7), article e426.
- Ghawadra, S.F., Abdullah, K.L., Choo, W.Y., & Phang, C.K. (2019), "Psychological distress and its association with job satisfaction among nurses in a teaching hospital", *Journal of Clinical Nursing*, 28(21-22), p 4087-4097.
- Government of Canada. (2021a), *Canada Emergency Response Benefit (CERB)*, <https://www.canada.ca/en/services/benefits/ei/cerb-application.html>
- Government of Canada. (2021b), *Canada Emergency Wage Subsidy (CEWS)*, <https://www.canada.ca/en/revenue-agency/services/wage-rent-subsidies/emergency-wage-subsidy.html>
- Grichnik, D., Smeja, A., & Welpe, I. (2010), "The importance of being emotional: How do emotions affect entrepreneurial opportunity evaluation and exploitation?", *Journal of Economic Behavior & Organization*, 76(1), p 15-29.
- Jia, F., & Zhang, Y. (2018), "The impact of positive affect on entrepreneurial motivational outcomes: A self-regulatory perspective", *International Review of Entrepreneurship*, 16(4), p 627-656.
- Källner, E., & Nyström, K. (2018), "Entrepreneurial motivation and idea generation by displaced employees", *International Review of Entrepreneurship*, 16(3), p 383-404.
- Karademas, E.C. (2007), "Positive and negative aspects of well-being: Common and specific predictors", *Personality and Individual Differences*, 43(2), p 277-287.
- Keyes, C.L. (2005), "Mental illness and/or mental health? Investigating axioms of the complete state model of health", *Journal of Consulting and Clinical Psychology*, 73(3), p 539-548.

- Kroenke, K., Spitzer, R.L., Williams, J.B., & Löwe, B. (2009), "An ultra-brief screening scale for anxiety and depression: The PHQ-4", *Psychosomatics*, 50(6), p 613-621.
- Lechat, T., & Torrès, O. (2017), "Stressors and satisfactors in entrepreneurial activity: An event-based, mixed methods study predicting small business owners' health", *International Journal of Entrepreneurship and Small Business*, 32(4), p 537-569.
- Lerman, M.P., Munyon, T.P., & Williams, D.W. (2020), "The (not so) dark side of entrepreneurship: A meta-analysis of the well-being and performance consequences of entrepreneurial stress", *Strategic Entrepreneurship Journal*, 15(3), p 377-402.
- Luc, S., Chirita, G.M., Delvaux, E., & Kepnou, A.K. (2018), "Hybrid entrepreneurship: Employees climbing the entrepreneurial ladder", *International Review of Entrepreneurship*, 16(1), p 89-114.
- Monllor, J. & Murphy, P.J. (2017), "Natural disasters, entrepreneurship, and creation after destruction: A conceptual approach", *International Journal of Entrepreneurial Behavior & Research*, 23(4), p 618-637.
- Nikolaev, B., Shir, N., & Wiklund, J. (2020), "Dispositional positive and negative affect and self-employment transitions: The mediating role of job satisfaction", *Entrepreneurship Theory and Practice*, 44(3), p 451-474.
- OECD. (2020a), *OECD Economic Outlook, Volume 2020*. Paris: OECD.
- OECD. (2020b), *Job Retention Schemes during the COVID-19 and Beyond*. Paris: OECD.
- OECD. (2020c), *Supporting Businesses in Financial Distress to Avoid Insolvency during the COVID-19 Crisis*. Paris: OECD.
- Pearlin, L.I., Menaghan, E.G., Lieberman, M.A., & Mullan, J.T. (1981), "The stress process", *Journal of Health and Social Behavior*, 22(4), p 337-356.
- Pepe, A., Addimando, L., Dagdukee, J., & Veronese, G. (2021), "Psychological distress, job satisfaction and work engagement: A cross-sectional mediation study with a sample of Palestinian teachers", *Educational Studies*, 47(3), p 275-291.
- Peris-Ortiz, M., Fuster-Estruch, V., & Devece-Carañana, C. (2014), "Entrepreneurship and innovation in a context of crisis", In: K. Rüdiger, M. Peris-Ortiz, & A. Blanco-González (Eds.), *Entrepreneurship, Innovation and Economic Crisis: Lessons for Research, Policy and Practice*. Cham: Springer, pp. 1-10.
- Perry-Smith, J.E., & Coff, R.W. (2011), "In the mood for entrepreneurial creativity? How optimal group affect differs for generating and selecting ideas for new ventures", *Strategic Entrepreneurship Journal*, 5(3), p 247-268.
- Poschke, M. (2013), "Who becomes an entrepreneur? Labor market prospects and occupational choice", *Journal of Economic Dynamics and Control*, 37(3), p 693-710.

- Prilleltensky, I. (2012), "Wellness as fairness", *American Journal of Community Psychology*, 49(1), p 1-21.
- Prilleltensky, I., Dietz, S., Prilleltensky, O., Myers, N.D., Rubenstein, C.L., Jin, Y., & McMahon, A. (2015), "Assessing multidimensional well-being: Development and validation of the I COPPE scale", *Journal of Community Psychology*, 43(2), p 199-226.
- Raffiee, J., & Feng, J. (2014), "Should I quit my day job? A hybrid path to entrepreneurship", *Academy of Management Journal*, 57(4), p 936-963.
- Shapero, A. & Sokol, L. (1982), "The social dimensions of entrepreneurship", In: C. Kent, D. Sexton, & K.H. Vesper (Eds.), *The Encyclopedia of Entrepreneurship*. Englewood Cliffs, NJ: Prentice-Hall, pp. 72-90.
- Shir, N., Nikolaev, B.N., & Wincent, J. (2019), "Entrepreneurship and well-being: The role of psychological autonomy, competence, and relatedness", *Journal of Business Venturing*, 34(5), article 105875.
- Sjöberg, L. (2007), "Emotions and risk perception", *Risk Management*, 9(4), p 223–237.
- Statistics Canada. (2020a), *Labour Force Survey, October 2020*, <https://www150.statcan.gc.ca/n1/daily-quotidien/201106/dq201106a-eng.htm>
- Statistics Canada. (2020b), *Measuring labour market impacts as COVID-19 restrictions gradually ease*, <https://www150.statcan.gc.ca/n1/daily-quotidien/200605/dq200605a-eng.htm>
- Statistics Canada. (2021), *Labour Force Survey, December 2020*, <https://www150.statcan.gc.ca/n1/daily-quotidien/210108/dq210108a-eng.htm>
- Statistics Canada. (2022), *Table 14-10-0288-01. Employment by class of worker, monthly, seasonally adjusted and unadjusted, last 5 months (x 1,000)*, <https://doi.org/10.25318/1410028801-eng>
- Stephan, U. (2018), "Entrepreneurs' mental health and well-being: A review and research agenda", *Academy of Management Perspectives*, 32(3), p 290-322.
- Stephan, U., Zbierowski, P., Pérez-Luño, & Klausen, A. (2021), *Entrepreneurship during the Covid-19 Pandemic: A global study of entrepreneurs' challenges, resilience, and well-being*, KBS Covid-19 Research Impact Papers, No. 4. London: King's Business School, King's College London.
- Sufyan, M, Aleem, M., Ameer, I., & Mustak, M. (2021), "Entrepreneurship during the COVID-19 pandemic: A Systematic Literature Review and future research agenda", *International Review of Entrepreneurship*, 19(4), p 437-466.
- Torrès, O., Fisch, C., Mukerjee, J., Lasch, F., & Thurik, R. (2021), "Health perception of French SME owners during the 2020 COVID-19 pandemic", *International Review of Entrepreneurship*, 19(2), p 151-168.

- Torrès, O., Benzari, A., Fisch, C., Mukerjee, J., Swalhi, A., & Thurik, R. (2022), "Risk of burnout in French entrepreneurs during the COVID-19 crisis", *Small Business Economics*, 58(2), p 717-739.
- Uy, M.A., Foo, M.D., & Song, Z. (2013), "Joint effects of prior start-up experience and coping strategies on entrepreneurs' psychological well-being", *Journal of Business Venturing*, 28(5), p 583-597.
- Vanhaecht, K., Seys, D., Bruyneel, L., Cox, B., Kaesemans, G., Cloet, M., ..., & Claes, S. (2021), "COVID-19 is having a destructive impact on health-care workers' mental well-being", *International Journal for Quality in Health Care*, 33(1), article mzaa158.
- Viertiö, S., Kiviruusu, O., Piirtola, M., Kaprio, J., Korhonen, T., Marttunen, M., & Suvisaari, J. (2021), "Factors contributing to psychological distress in the working population, with a special reference to gender difference", *BMC Public Health*, 21, article 611.
- Vittersø, J. (2004), "Subjective well-being versus self-actualization: Using the flow-simplex to promote a conceptual clarification of subjective quality of life", *Social Indicators Research*, 65(3), p 299–331.
- Wach, D., Stephan, U., Weinberger, E., & Wegge, J. (2021), "Entrepreneurs' stressors and well-being: A recovery perspective and diary study", *Journal of Business Venturing*, 36(5), article 106016.
- World Health Organization. (2020 [1948]), *Constitution of the World Health Organization, Basic Documents*, Forty-fifth edition. Geneva, Switzerland: WHO.
- Wiklund, J., Nikolaev, B., Shir, N., Foo, M.D., & Bradley, S. (2019), "Entrepreneurship and well-being: Past, present, and future", *Journal of Business Venturing*, 34(4), p 579-588.
- Wincent, J., & Örtqvist, D. (2009), "A comprehensive model of entrepreneur role stress antecedents and consequences", *Journal of Business and Psychology*, 24(2), p 225-243.
- Wolfe, M.T., & Patel, P.C. (2021), "Everybody hurts: Self-employment, financial concerns, mental distress, and well-being during COVID-19", *Journal of Business Venturing Insights*, 15, article e00231.
- Xiao, Y., Becerik-Gerber, B., Lucas, G., & Roll, S.C. (2021), "Impacts of working from home during COVID-19 pandemic on physical and mental well-being of office workstation users", *Journal of Occupational and Environmental Medicine*, 63(3), 181-190.