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Well-being costs of perceived job insecurity: Mediating role of financial satisfaction, subjective healthiness and institutional trust

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Abstract. The fear of losing the current job or not finding a new job significantly affects an individual's well-being. However, perceived job insecurity also affects an individual's financial satisfaction, subjective healthiness, and trust in institutions - determinants of subjective well-being. This research explores the direct and indirect effects of perceived job insecurity on the life satisfaction of the full-time employed and unemployed people within a serial mediation analysis framework. Using the World Values Survey (6th wave) dataset, we estimated the effects in aggregate and disaggregated (by the income level of countries) samples. Regarding unemployed people, results display the almost equal contribution of direct and indirect channels. In contrast, the dominance of indirect impact channels is more considerable in the case of individuals employed full-time. In disaggregated samples, no significant impact is detected in low-income and upper-middle-income class members, while the effects are significant and economically meaningful for lower-middle-income and high-income countries. Non-pecuniary costs exceed pecuniary costs. The primary mediating factor is satisfaction with a household's financial situation, especially in high-income countries. The availability of unemployment insurance benefits can partially compensate well-being costs of perceived job insecurity. Nevertheless, governments need to enhance labour market efficiency to diminish both unemployed and full-time employed individuals' perceived job insecurity, which would improve societal welfare in the end.

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1. INTRODUCTION

Subjective well-being, also well known as happiness or satisfaction, covers people's appraisals and self-evaluations about their life (Diener, 1984). Higher subjective well-being results in better health, social relationships, creativity, and work performance (Zajacova & Dowd, 2014; Diener, Oishi & Tay, 2018).

Since early 2020, job insecurity has been a more challenging issue due to the outbreak and quick spread of novel coronavirus pneumonia, so-called COVID-19, followed by lockdowns and quarantine measures. International Monetary Fund (IMF) projected a contraction in real GDP and higher unemployment in the economies for 2020 and 2021 (IMF, 2020, pp. 20-21). According to International Labour Organization (ILO) estimates, 81% of employers and 66% of own-account workers are recommended or required workplace closures by April 22, 2020, due to COVID-19 related measures, affecting income and jobs significantly (ILO Monitor, 2020). ILO Monitor (2020) report mentions that 436 million enterprises are in the hardest-hit sectors, and 1.6 billion workers in the informal sector are significantly affected worldwide. A recent study estimates that 32-42% of layoffs due to COVID-19 will be permanent (Barrero, Bloom and Davis, 2020). A large-scale COVID-19 induced uncertainty affects economies in the local and global context (Baker et al., 2020; Altig et al., 2020; Caggiano, Castelnuovo & Kima, 2020). Economic uncertainty means higher perceived job insecurity – the greater fear of being unemployed or not finding a job.

Job insecurity damages employees' health (Erlinghagen, 2008; Nica, Manole & Briscariu, 2016; De Witte, Vander Elst & De Cuyper, 2015) and reduces people's well-being (De Witte et al., 2015; Nica et al., 2016). A meta-analysis by Kim and von Dem Knesebeck (2016) confirms the depressiveness of perceived job insecurity and unemployment. Large scale unexpected situations similar to COVID-19 may happen in the future as well, which makes studying costs of perceived job insecurity more crucial.

The well-being cost of unemployment is as much as divorce or death in a family (Layard, Clark and Senik, 2013), including both pecuniary (due to income loss) and non-pecuniary (deprivation from social rewards) costs (Winkelmann and Winkelmann, 1998). Unemployment is considered to be more detrimental than insecure employment (Griep et al., 2016). Jobless people exposure to depression (Zuelke et al., 2018), have poor mental health (Clark & Oswald, 1994) and low self-esteem (Van der Meer, Wielers & Rozenstraat, 2016). Being unemployed also threatens social identity and self-worth (Schöb, 2016).

The costs are predicted to be more among those who have greater concerns about not finding a job. Numerous studies underline the role of perceived job insecurity as an indirect channel in unemployment – life satisfaction association (Clark, Knabe and Rätzel, 2010; Winkelmann, 2014; Chadi and Hetschko, 2016), especially for temporarily employed people (Helliwell and Huang, 2014; Schöb, 2016).

From this perspective, we expand the concept of perceived job insecurity by including unemployed people in line with employees and evaluating possible direct and indirect causality channels toward individuals' subjective well-being. For employees, job insecurity implies the threat of losing their current job while unemployed people are concerned and feel insecure about not finding a new job. Taking into account financial satisfaction (Benito, 2006), subjective healthiness (Cottini & Ghinetti, 2018; Urbanaviciute, De Witte & Rossier, 2019) and institutional trust (Bauer, 2018; Draskovic et al., 2019; 2020) effects of perceived job insecurity, we apply serial mediation analyses by Hayes (2018) with three mediators (financial satisfaction, institutional trust, and subjective healthiness) to evaluate well-being effects of perceived job insecurity.

The research uses World Values Survey (6th wave) database by Inglehart et al. (2014). We decompose the database of full-time employed (n=28036) and unemployed (n=8413) respondents, and group them according to income classification (low income, lower middle income, upper middle income, or high income) of the country in the year of data collection. We estimate the well-being effects of perceived job

insecurity in the samples of all employed and unemployed individuals as well as disaggregated sub-samples of country-level income groups.

2. REVIEW OF STUDIES AND HYPOTHESES DEVELOPMENT

The point is fear of being unemployed (or job insecurity) has large scale effects on almost all aspects of an individual's life. As mentioned in Griep et al. (2016), in line with cognitive stress (Folkman and Lazarus, 1984) and role theory (Jacobson, 1991), the detrimental effects of job insecurity can be even as much as unemployment itself. Studies confirm the existence of a negative association between job insecurity and life satisfaction (De Witte et al., 2015; Stiglbauer & Batinic, 2015; Nica et al., 2016; Griep et al., 2016; De Cuyper et al., 2019, among others). These links are especially significant for more vulnerable groups on labour market, particularly, youth (Tvaronavičienė et al., 2021), those involved in informal labour relations (Remeikiene & Gaspariene, 2021), people vulnerable to poverty due to the place of residence and educational level (Dawood et al., 2019).

Meanwhile, existing literature also presents enough scientific evidence of negative causality from unemployment to life satisfaction (Knabe, Schöb & Weimann, 2016; Lim, 2017; Von Scheve, Esche & Schupp, 2017; Eren & Aşıcı, 2017; Barros, Dieguez & Nunes, 2019; Aliyev, 2021). Unemployment also decreases the well-being of employed people (Clark, Knabe & Rätzel, 2010; Schwarz, 2012; Winkelmann, 2014). Consider two individuals both employed; if the self-perceived probability of being unemployed is near zero for the first and large for the second, the second person will definitely have a cost – called the fear of unemployment effect (Leslie & Blackaby, 1999). Analogically, the same happens for any two unemployed people if one's perceived probability of finding a job is less than another. According to Ochsen and Welsch (2011), the fear is mostly due to the long-term duration probability of unemployment, which similarly affects unemployed and employed people. Reichert and Tauchmann (2011) find that increasing fear of unemployment significantly reduces employees' mental health status, especially those who already have poor mental health.

Besides direct effects on life satisfaction (Nica et al., 2016; Griep et al., 2016; De Cuyper et al., 2019), (the fear of) being unemployed creates financial dissatisfaction (pecuniary costs, see Benito (2006) for effects of job insecurity on household consumption), decreases healthiness (De Witte et al., 2015; Green, 2015; Nica et al., 2016; Kim & Dem Knesebeck, 2016; Caroli & Godard, 2016; Cottini & Ghinetti, 2018; Urbanaviciute, De Witte & Rossier, 2019), and institutional trust (Bauer, 2018; Delibasic, 2022).

Meanwhile, previous studies document the existence of associations between life satisfaction and financial satisfaction (Diener & Diener, 2009; Brzozowski & Visano, 2020; Ngamaba et al., 2020), healthiness (Lombardo et al., 2018), and institutional trust (Hudson, 2006; Habibov & Afandi, 2015), and financial satisfaction and healthiness (Erdil & Yetkiner, 2004; Larrimore, 2011).

In this context, the causality from perceived job insecurity to life satisfaction should happen directly and indirectly through a set of mediating channels. Considering the relationships between selected mediators (financial satisfaction, perceived healthiness, and institutional trust), we employ the serial mediation analysis framework by Hayes (2018) to estimate the direct and indirect effects. Figure 1 displays the framework of a serial mediation model with two mediators (M1 and M2).

In the case of two mediators, the serial mediation framework estimates the indirect effects of X over Y through 3 channels: (1) X causes M1 causes Y, (2) X causes M2 causes Y, and (3) X causes M1 causes M2 causes M3.

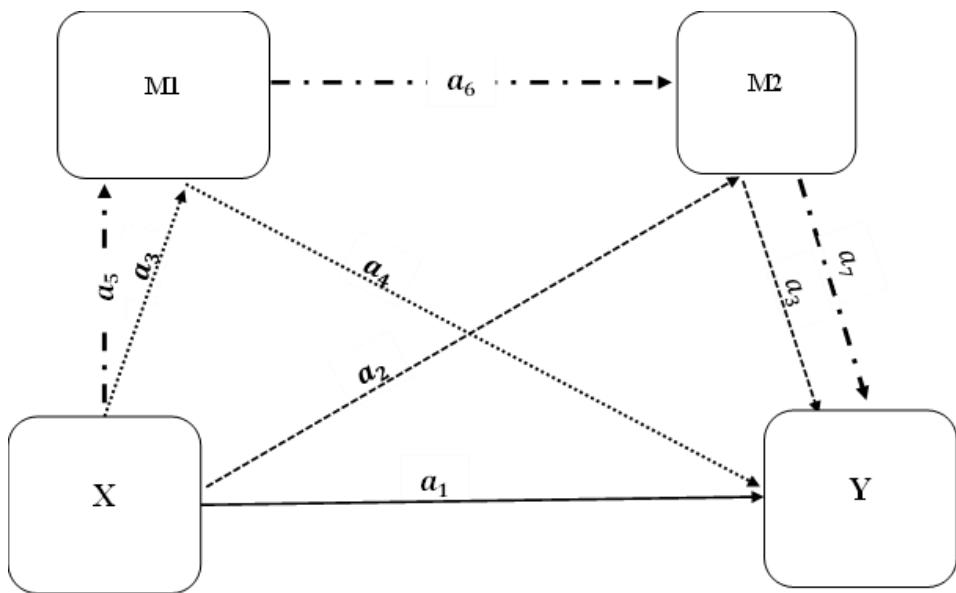


Figure 1. Serial mediation model with two mediators (M1 and M2)

Source: Author's own creation.

Current research is built over a serial mediation model with 3 mediators (financial satisfaction (M1), self-described state of health (M2), and institutional trust (M3)). Here the dependent variable (Y) is self-reported life satisfaction, and the independent variable (X) is perceived job insecurity.

Therefore, the research hypothesizes that the impact of perceived job insecurity over self-reported life satisfaction happens **directly** ($X \xrightarrow{\text{causes}} Y$) and **indirectly via:**

- “Ind1”: $X \xrightarrow{\text{causes}} M1 \xrightarrow{\text{causes}} Y$
- “Ind2”: $X \xrightarrow{\text{causes}} M2 \xrightarrow{\text{causes}} Y$
- “Ind3”: $X \xrightarrow{\text{causes}} M3 \xrightarrow{\text{causes}} Y$
- “Ind4”: $X \xrightarrow{\text{causes}} M1 \xrightarrow{\text{causes}} M2 \xrightarrow{\text{causes}} Y$
- “Ind5”: $X \xrightarrow{\text{causes}} M1 \xrightarrow{\text{causes}} M3 \xrightarrow{\text{causes}} Y$
- “Ind6”: $X \xrightarrow{\text{causes}} M2 \xrightarrow{\text{causes}} M3 \xrightarrow{\text{causes}} Y$
- “Ind7”: $X \xrightarrow{\text{causes}} M1 \xrightarrow{\text{causes}} M2 \xrightarrow{\text{causes}} M3 \xrightarrow{\text{causes}} Y$

Methodologically, current research aims to examine the strength of hypothesized direct and indirect effect causality channels. Simultaneously, we also hypothesize that causality features between perceived job insecurity and life satisfaction vary for employment status and a country's income level. Therefore, we also apply the serial mediation analysis framework separately to the datasets of unemployed and full-time employed people from low-income, lower-middle-income, upper-middle-income, and high-income countries.

3. DATA AND EMPIRICAL METHODOLOGY

3.1. Sampling

Retrieved from the 2010-2014 World Values Survey (6th wave), the dataset covers 89565 respondents from 60 countries and societies (Inglehart et al., 2014). Among them, 8413 ($n_{male} = 4483$, $n_{female} = 3929$, $Mean_{age} = 35.66$) are unemployed, and 28036 ($n_{male} = 16599$, $n_{female} = 11410$, $Mean_{age} = 39.31$) are full-time employed (works at least 30 hours per week).

According to the World Bank's (2020) historical income classification of participant countries in the year of data collection, disaggregated sample structures are as follows:

Among the sample of the unemployed group:

- 838 respondents belong to low-income countries ($n_{male} = 405$, $n_{female} = 433$, $Mean_{age} = 34.16$)
- 2583 respondents belong to lower-middle-income countries ($n_{male} = 1439$, $n_{female} = 1144$, $Mean_{age} = 34.08$)
- 3422 respondents belong to upper-middle-income countries ($n_{male} = 1890$, $n_{female} = 1532$, $Mean_{age} = 34.21$)
- 1570 respondents belong to high-income countries ($n_{male} = 750$, $n_{female} = 820$, $Mean_{age} = 42.21$)

Among the sample of full-time employees group:

- 981 respondents belong to low-income countries ($n_{male} = 569$, $n_{female} = 412$, $Mean_{age} = 34.58$)
- 4128 respondents belong to lower-middle-income countries ($n_{male} = 2650$, $n_{female} = 1478$, $Mean_{age} = 37.34$)
- 11552 respondents belong to upper-middle-income countries ($n_{male} = 6864$, $n_{female} = 4688$, $Mean_{age} = 38.46$)
- 11375 respondents belong to high-income countries ($n_{male} = 6543$, $n_{female} = 4832$, $Mean_{age} = 41.31$)

3.2. Variables

3.1.1. Dependent variable

The research uses a 1-item scale to measure the well-being of a respondent. Life satisfaction (LS), as a measure of well-being, denotes the self-reported life satisfaction of each individual who attended the survey. Respondents are asked to evaluate their satisfaction with life as a whole these days. The variable gets a value between 1 (completely dissatisfied) and 10 (completely satisfied). A higher LS score means greater satisfaction with life.

3.1.2. Independent variable

PJI represents perceived job insecurity by a respondent. As a proxy for PJI, we refer to the question “*to what degree are you worried about losing your job or not finding a job*”, which gets a value between 1 (very much)

and 4 (not at all). Therefore, less PJI value implies a respondent's more significant concern about losing his/her job or not finding a job.

3.1.3. Mediators

FS presents subjective satisfaction with the household's financial situation. The variable value ranges from 1 (completely dissatisfied) to 10 (completely satisfied). A higher FS value means more satisfaction with the household's financial situation.

Health reports the subjective healthiness of a respondent. Survey participants are asked to respond, “*All in all, how would you describe your state of health these days?*” while *very good* = 1, *good* = 2, *fair* = 3, and *poor* = 4. Less numerical value means greater subjective healthiness of a respondent.

IT stands for a respondent's trust in institutions, shows off a subjective evaluation of 17 organizations: (1) the churches, (2) the armed forces, (3) the press, (4) television, (5) labour unions, (6) the police, (7) the courts, (8) the government, (9) political parties, (10) parliament, (11) the (12) civil service, (13) universities, (14) major companies, (15) banks, (16) environmental organizations, and (17) women's organizations. A 4-point Likert scale has measured the level of confidence for each organization, while 1 means a *great deal of confidence* and 4 means *none at all*. Therefore, less numerical value means greater confidence/trust in the corresponding organization. As a proxy for subjective institutional trustworthiness, we find the sum of confidence scores results in an IT scale ranging from 17 (the most trustworthiness) to 68 (the least trustworthiness). The reliability of the scale is confirmed in all samples. Cronbach's alpha value is very close to or greater than 0.90, which implies almost excellent internal consistency and high reliability.

3.1.4. Covariates

Models include a set of factors for unbiased research findings, such as age and dummy variables representing the respondent's gender, marital status, self-perceived social class belonging, and education level. Simultaneously, models estimated with the aggregate sample of unemployed and full-time employed people also include dummy variables to consider the country's income group in the year of data collection.

3.2. Models

Applying the serial mediation analysis framework (Process macro – PROCESS v3.4.) developed by Hayes (2018) in SPSS, the following models are estimated to measure the direct and indirect effects of PJI over LS:

$$FS_i = c'_0 + \alpha_1 * PJI_i + \sum_{k=1}^n \gamma'_k * Z_k + u'_i \quad (1)$$

$$Health_i = c''_0 + \beta_1 * PJI_i + \beta_2 * FS_i + \sum_{k=1}^n \gamma''_k * Z_k + u''_i \quad (2)$$

$$IT_i = c'''_0 + \delta_1 * PJI_i + \delta_2 * FS_i + \delta_3 * Health_i + \sum_{k=1}^n \gamma'''_k * Z_k + u'''_i \quad (3)$$

$$LS_i = c''''_0 + \varphi_1 * PJI_i + \varphi_2 * FS_i + \varphi_3 * Health_i + \varphi_4 * IT_i + \sum_{k=1}^n \gamma''''_k * Z_k + u''''_i \quad (4)$$

$$LS_i = c_0'''' + \theta_1 * PJI_i + \sum_{k=1}^n \gamma_k'''' * Z_k + u_i'''' \quad (5)$$

Here, c_0 and u_i represent constant and error term of the corresponding equation, respectively. Z_k includes the set of covariates.

Regarding the impact of PJI on LS, φ_1 in equation (4) displays the direct effect while θ_1 in equation (5) reports the total effect. Equations 1-4 allow calculating the indirect impact of PJI on LS through each channel mentioned above. We employ the bootstrap analyses ($n = 5000$) at a 95% confidence level to test the significance of indirect effect channels.

4. RESULTS

The mediation analyses have primary two steps. In the first stage, we estimate the models according to specifications in equations 1-5. After, direct and indirect effects are calculated based on the bootstrap analyses outcomes. Appendixes (A) and (B) display the first step outcomes for unemployed and employed people, respectively.

Below, Table 1 summarizes the first step outcomes. Given information is necessary to understand the direct and indirect causality between perceived job insecurity and life satisfaction. The significance of indirect channels relies on identified causalities ("x" denotes significant causality at 5%) between mediators as well as between each mediator variable and the dependent variable.

Total and the direct impact of perceived job insecurity over self-reported happiness of unemployed individuals are statistically significant at 5% in the cases of the aggregate sample, lower middle income and high-income countries. Regarding employed individuals, the total impact is found significant in the same groups, while the direct impact is not significant in the lower-middle-income group.

At first sight, Table 1 presents enough information to have an idea about the significance of each indirect impact channel within the serial mediation analyses framework. However, bootstrap analyses yield better results, as described in Table 2. Note that bootstrapping procedure is the second step in serial mediation analyses.

Table 1
Summary of the first-step outcomes in serial mediation analyses

	All countries	Low-income	Lower-middle income	Upper-middle income	High-income
Panel A: Unemployed individuals					
$PJI \xrightarrow{\text{causes}} LS \text{ (total)}$	x		x		x
$PJI \xrightarrow{\text{causes}} LS \text{ (direct)}$	x		x		x
$FS \xrightarrow{\text{causes}} LS$	x	x	x	x	x
$Health \xrightarrow{\text{causes}} LS$	x	x	x	x	x
$IT \xrightarrow{\text{causes}} LS$	x		x	x	x
$PJI \xrightarrow{\text{causes}} FS$	x	x	x	x	x
$PJI \xrightarrow{\text{causes}} Helath$		x			
$PJI \xrightarrow{\text{causes}} IT$			x		
$FS \xrightarrow{\text{causes}} Helath$	x	x	x	x	x
$FS \xrightarrow{\text{causes}} IT$	x		x	x	x

<i>Health</i> $\xrightarrow{\text{causes}}$ <i>IT</i>	x	x	x	x	
Panel B: Employed individuals					
<i>PJI</i> $\xrightarrow{\text{causes}}$ <i>LS (total)</i>	x		x		x
<i>PJI</i> $\xrightarrow{\text{causes}}$ <i>LS (direct)</i>	x				x
<i>FS</i> $\xrightarrow{\text{causes}}$ <i>LS</i>	x	x	x	x	x
<i>Health</i> $\xrightarrow{\text{causes}}$ <i>LS</i>	x	x	x	x	x
<i>IT</i> $\xrightarrow{\text{causes}}$ <i>LS</i>	x		x	x	x
<i>PJI</i> $\xrightarrow{\text{causes}}$ <i>FS</i>	x		x		x
<i>PJI</i> $\xrightarrow{\text{causes}}$ <i>Helath</i>	x		x		x
<i>PJI</i> $\xrightarrow{\text{causes}}$ <i>IT</i>	x		x	x	x
<i>FS</i> $\xrightarrow{\text{causes}}$ <i>Helath</i>	x	x	x	x	x
<i>FS</i> $\xrightarrow{\text{causes}}$ <i>IT</i>	x	x	x	x	x
<i>Health</i> $\xrightarrow{\text{causes}}$ <i>IT</i>	x	x	x	x	x
<i>Note:</i> "x" denotes $p < 0.05$					

4.1. Results for unemployed people

While considering all countries, direct ($\frac{0.0755}{0.1466} = 0.51.5 = 51.5\%$) and indirect ($\frac{0.0711}{0.1466} = 0.485 = 48.5\%$) channels play almost the same role for life satisfaction impact of perceived job insecurity for unemployed people. The share of direct and indirect channels is 59.9% / 40.1% in lower middle income, and 49.9% / 50.1% in high-income countries, respectively.

Table 2
Serial mediation analyses STEP 2 – Bootstrap analyses outcomes

	All countries	Low-income	Lower-middle income	Upper-middle income	High-income
Panel A: Unemployed individuals					
Total effect	0.1466**	0.0319	0.3145**	0.0238	0.3129**
<i>Direct effect</i>	0.0755**	0.1305	0.1884**	-0.0401	0.1560**
<i>Indirect effect (total)</i>	0.0711**	-0.0985**	0.1261**	0.0639**	0.1570**
<i>Including</i>					
<i>Ind1</i>	0.0648**	-0.0596	0.0599**	0.0652**	0.1170**
<i>Ind2</i>	-0.0007	-0.0320**	0.0114	-0.0010	0.0103
<i>Ind3</i>	-0.0001	-0.0048	0.0442**	-0.0063	0.0032
<i>Ind4</i>	0.0055**	-0.0029	0.0045**	0.0048**	0.0202**
<i>Ind5</i>	0.0014**	0.0000	0.0044**	0.0011**	0.0061**
<i>Ind6</i>	0.0000	0.0007	0.0013	0.0000	0.0001
<i>Ind7</i>	0.0002**	0.0001	0.0005**	0.0001	0.0001
Panel B: Full time employed individuals					
Total effect	0.1511**	0.0808	0.1878**	-0.0100	0.2991**
<i>Direct effect</i>	0.0528**	0.0442	0.0561	-0.0196	0.1283**
<i>Indirect effect (total)</i>	0.0983**	0.0366	0.1317**	0.0095	0.1708**
<i>Including</i>					

<i>Ind1</i>	0.0661**	0.0321	0.0693**	0.0068	0.1156**
<i>Ind2</i>	0.0259**	0.0028	0.0199**	0.0065	0.0445**
<i>Ind3</i>	-0.0026**	0.0004	0.0323**	-0.0048**	-0.0025**
<i>Ind4</i>	0.0073**	0.0012	0.0049**	0.0009	0.0121**
<i>Ind5</i>	0.0008**	0.0000	0.0022**	0.0001	0.0007**
<i>Ind6</i>	0.0006**	0.0000	0.0025**	0.0001	0.0003
<i>Ind7</i>	0.0002**	0.0000	0.0006**	0.0000	0.0001

Note. ** $p < 0.05$. Standard errors of each coefficient are in parentheses. Significance of indirect effects refers to bootstrap analyses ($n = 5000$) at a 95% confidence level. A heteroscedasticity consistent standard error and covariance matrix estimator is used.

If the aggregate sample is considered, satisfaction with the financial situation appears to be the dominant mediator variable. The indirect effect of PJI to LS happens via FS. Significant indirect impact channels are “Ind1” ($PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} LS$), “Ind4” ($PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} Health \xrightarrow{\text{causes}} LS$), “Ind5” ($PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} IT \xrightarrow{\text{causes}} LS$) and “Ind7” ($PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} Health \xrightarrow{\text{causes}} IT \xrightarrow{\text{causes}} LA$).

The result for low and upper-middle-income countries is highly insightful. Unemployed people living in low-income countries are not affected significantly by higher perceived job insecurity. While the direct impact is negative and weak significant ($p < 0.1$), indirect channels makes people “happier” ($p < 0.05$). The misery may lie behind the associations $PJI \xrightarrow{\text{causes}} FS$ and $PJI \xrightarrow{\text{causes}} Health$ (see Appendix A). Unlike other income groups, the relationship is “positive” in low-income countries, i.e., higher perceived job insecurity makes people more satisfied with their financial situation and feel healthier. This may remind the “social norm effect” that unemployment “hurts less” in a society where being unemployed is more common (Ritzen, 2019). Similarly, suppose the labour market is ineffective. In that case, unemployed people have big concerns about not finding a job, and when the unemployment rate is high, a jobless person can compare his/her financial situation with others around. However, in line with Oesch and Lipps (2013) and Chadi (2014), the bootstrap analyses do not find $PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} LS$ channel significant ($p > 0.05$). Instead, the analyses find $PJI \xrightarrow{\text{causes}} Health \xrightarrow{\text{causes}} LS$ channel significant ($p < 0.05$). The misery behind “positive” causality from PJI to subjective healthiness in low-income countries is unclear. A possible explanation can refer to the “adaptation hypothesis” by Easterlin (1974) that well-being loss due to being unemployed vanishes over time. If it is, $PJI \xrightarrow{\text{causes}} Health$ should depend on the length of being unemployed. The current dataset does not allow us to consider this moderation impact. Note that $PJI \xrightarrow{\text{causes}} Health \xrightarrow{\text{causes}} LS$ is insignificant for the aggregate sample and all remaining subsamples. Therefore, we can conclude with no significant causality from PJI to LS in low-income countries.

In the case of upper-middle-income countries, PJI – LS relationship is a little strange. Results (see Appendix A) show no significant direct association between perceived job insecurity and life satisfaction, subjective healthiness and institutional trust ($p > 0.05$). On the contrary, the impact of perceived job insecurity over financial satisfaction is negative and significant at 1%. Financial satisfaction significantly affects ($p < 0.01$) remaining mediators (*Health*, and *IT*) and the dependent variable simultaneously, remaining mediators also significantly affects ($p < 0.01$) self-reported satisfaction with life. Therefore, it becomes clear that life satisfaction impact of perceived job insecurity in upper-middle-income countries happens indirectly ($p < 0.05$) via financial satisfaction. However, the total impact is statistically insignificant ($p > 0.05$).

Regarding unemployed people from lower-middle-income countries, all indirect impact channels are significant except “Ind2” ($PJI \xrightarrow{\text{causes}} Health \xrightarrow{\text{causes}} LS$) and “Ind6” ($PJI \xrightarrow{\text{causes}} Health \xrightarrow{\text{causes}} IT$

$\xrightarrow{\text{causes}}$ LS). On the contrary, satisfaction with the financial situation is the most important mediating factor for PJI and LS relationships in high-income countries. According to bootstrap analysis, significant indirect channels are “Ind1” ($PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} LS$), “Ind4” ($PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} Health \xrightarrow{\text{causes}} LS$) and “Ind5” ($PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} IT \xrightarrow{\text{causes}} LS$). This is quite plausible as life is more expensive in high-income countries. Consequently, the concern about not finding a job affect the well-being of unemployed people also indirectly, triggered by financial insufficiency concerns

4.2. Results for employed people

The research findings confirm the vital strong negative impact of perceived job insecurity over employed people's well-being. The causality from PJI towards LS happens through direct and indirect channels. When all countries are considered as a single sample, the total effect is 0.1511, of which 0.0528 (34.9%) are generated directly while the remaining 0.0983 (65.1%) happen through indirect channels. Regarding the disaggregated samples, research reveals no significant total direct/indirect causality in the case of low and upper-middle countries ($p > 0.05$), while PJI causes LS primarily through indirect impact channels in the lower-middle-income group. In the case of high-income countries, both direct and indirect impacts are statistically significant ($p < 0.05$).

The results for the low and upper-middle-income group require further research for a satisfactory explanation. Labour market structure differences and heterogeneity in disaggregated samples probably produce “insignificant impact” inference in low and upper-middle-income countries. Note that some countries belonging to the upper-middle-income group are resource-rich and has special socio-economic structure.

It is noteworthy to mention also that the direct effect is only significant in the high-income group. Though the direct impact is insignificant, the research identifies all indirect impact channels as significant ($p < 0.05$) in lower-middle-income countries. Among others, the indirect effect mediated by satisfaction with financial situation dominates. 52.6% of total indirect impact happens through $PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} LS$ channel. The second dominant indirect channel is $PJI \xrightarrow{\text{causes}} IT \xrightarrow{\text{causes}} LS$, account for 24.5% of the total, followed by $PJI \xrightarrow{\text{causes}} Health \xrightarrow{\text{causes}} LS$ (15.1% of total). The remaining indirect impact channels with multiple mediators (Ind4-7) are statistically significant ($p < 0.05$), but economically not strong.

Serial mediation analyses reveal employees in high-income countries are more sensitive to perceived job insecurity than others generated by direct and indirect impact channels. The direct effect (0.1283) is 42.9% of total impact (0.2991). Regarding indirect effect (57.1% of total), satisfaction with the financial situation again appears as the most important mediator. 67.7% of the total indirect impact is due to $PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} LS$ while 7.1% and 0.4% by $PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} Health \xrightarrow{\text{causes}} LS$ and $PJI \xrightarrow{\text{causes}} FS \xrightarrow{\text{causes}} IT \xrightarrow{\text{causes}} LS$, respectively. The next influential impact happens via subjectiveness healthiness ($PJI \xrightarrow{\text{causes}} Health \xrightarrow{\text{causes}} LS$) which is 26.1% of total indirect effects.

4.3. Pecuniary and non-pecuniary costs

Serial mediation analyses enable to have an approximation of pecuniary and non-pecuniary costs of perceived job insecurity. The indirect impact mediated by satisfaction with the financial situation most likely represents pecuniary costs, while the rest belongs to the non-pecuniary costs category. Therefore, the sum

of indirect effects from “Ind1”, and “Ind4-7” generates pecuniary costs of perceived job insecurity. Table 3 reports the share of pecuniary and non-pecuniary costs in total.

Table 3
Pecuniary and non-pecuniary costs of perceived job insecurity (in percentage)

	All countries	Low-income	Lower-middle income	Upper-middle income	High-income
Panel A: Unemployed individuals					
Total	100%	-	100%	-	100%
<i>Pecuniary costs</i>	49%	-	22%	-	45.8%
<i>Non-pecuniary costs</i>	51%	-	78%	-	54.2%
Panel B: Full-time employed individuals					
Total cost	100%	-	100%	-	100%
<i>Pecuniary costs</i>	49.6%	-	42.3%	-	42.9%
<i>Non-pecuniary costs</i>	50.4%	-	57.7%	-	57.1%

Source: Author's completion

In the sample of all countries, we find an almost equal share of pecuniary and non-pecuniary costs derived from perceived job insecurity. Non-pecuniary costs dominate with a minor difference: 2 percentage points for unemployed and 0.8 percentage points for full-time employed individuals.

Regarding disaggregated samples, note that results for low-income and upper-middle-income countries were less conclusive. Supporting Helliwell and Huang's (2014) argument, non-pecuniary costs dominate in the cases of lower-middle and high-income countries. However, there is no homogeneity: the difference is very large (56 percentage points) for unemployed individuals in lower-middle-income countries, while the same indicator is 8.4 percentage points for the high-income group. Non-pecuniary costs dominate with a larger share in samples of full-time employed individuals.

Note that the dominance of non-pecuniary costs is anticipated (Helliwell and Huang, 2014). The question is why there is much difference between lower-middle-income and high-income countries. The living costs and informal employment options can explain variations between the lower-middle-income and high-income countries. Countries belonging to high-income countries most likely have a greater cost of living (see WorldData, 2022) and less informal economy (see Elgin et al., 2021). On the contrary, living is less expensive in lower-middle-income countries while “working” in the informal sector is more common. This fact is more clear when the comparison is made for unemployed people. When an individual has a full-time job and receives a regular salary, perceived job insecurity creates much concern about potential income loss in lower-middle-income countries.

5. CONCLUSION

Economic policy decisions should aim to enhance individual and aggregate well-being in a society (Oishi and Diener, 2014). Ritzen (2019) considers being employed the key to personal happiness. However, perceptions about job insecurity when a person is employed or the concerns of an unemployed person to find a new job also significantly affect people's well-being. A recent study reveals that perceived job insecurity's well-being effects are relatively stronger than the well-being effects of perceived employability (De Cuyper et al., 2019). A high level of job insecurity decreases the efficiency of proactive coping and mitigates its positive impact on employee well-being (Stiglbauer and Batinic, 2015). Therefore, policymakers should note that people live with the threat of employment loss (job tenure insecurity) or losing valued

features of the job known as “job status insecurity” (Gallie et al., 2016), which is even larger in economies under contraction.

Current research further elaborates the well-being effects of perceived job insecurity by applying the serial mediation analyses framework, claiming that satisfaction with household’s financial situation, subjective healthiness and trust in institutions mediates the relationship between perceived job insecurity and life satisfaction among both unemployed and full-time employed people. Therefore, besides the direct impact, the serial mediation analyses framework allows estimating the indirect well-being effects through 7 channels.

Regarding the estimations with aggregate samples of unemployed people, it becomes clear that perceived job insecurity significantly affects life satisfaction and satisfaction with the financial situation. Subjective healthiness and trust in institutions are not affected by the concerns of not finding a new job. Therefore, the indirect well-being loss is linked to satisfaction with financial income. In this case, indirect effects of perceived job insecurity can be abolished by generous unemployment insurance benefits. However, this does not apply to all income classes. Results display no significant well-being impact of perceived job insecurity in low-income and upper-middle-income countries, which requires further research to clarify the background reasons.

When the impact is considered for full-time employed people, we find a significant impact of the fear to lose the current job on life satisfaction and all mediators in the aggregate sample. Note that the causalities between the mediators are all statistically significant. Apparently, perceived job insecurity creates multidirectional damage for employed people. The same conclusion is drawn when the high-income class sample is considered. On the contrary, perceived job insecurity affects the well-being of individuals through indirect effect channels in the case of the lower-middle-income class. The impact over all mediator variables as well as the causalities between mediators are all statistically significant, while the direct impact is statistically insignificant. It is noteworthy to mention that no significant well-being impact is detected in case low-income and upper-middle-income countries when full-time workers are considered.

Research findings also ensure to have an idea about pecuniary and non-pecuniary well-being costs due to perceived job insecurity. The result should be highly informative for policymakers. Regarding the sample of all countries, pecuniary costs entail almost 50% for both the sample of unemployed and employed individuals. In this context, the potential effectiveness of unemployment insurance benefits should appear in mind. Existing studies already confirm that unemployment insurance benefits help to maintain the well-being of recipients (Hamermesh and Slesnick, 1995; Oishi and Diener, 2014) and diminish the costs of job insecurity (Sjöberg, 2010) and the effects of unemployment (Renahy et al., 2018). According to the current research findings, unemployment insurance can partially compensate for well-being loss, especially in lower-middle-income countries. Therefore, governments should also consider policies to address the non-pecuniary costs of perceived job insecurity.

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APPENDIXES

Appendix A

Serial mediation analyses STEP 1 – Estimation outcomes for unemployed individuals

Independent variables	Outcome variables				
	FS	Health	IT	LS (Eq. 4)	LS (Eq. 5)
Panel A: All countries					
PJI	0.1846***	0.0012	0.0032	0.0755***	0.1466***
FS	-	-0.0538***	-0.3727***	0.3509***	-
Health	-	-	0.8438***	-0.5527***	-
IT	-	-	-	-0.0203***	-
<i>Covariates</i>					
Constant	4.997***	1.562***	41.297***	6.1963***	6.4116***
Panel B: Low-income countries					
PJI	-0.1408***	0.0718**	-0.5713	0.1305	0.0319
FS	-	-0.0464***	-0.0272	0.4231***	-
Health	-	-	1.1370***	-0.4457***	-
IT	-	-	-	0.0085	-
<i>Covariates</i>					
Constant	4.9731***	1.0767***	43.099***	4.3752***	6.4748***
Panel C: Lower-middle income countries					
PJI	0.2045***	-0.0214	-1.2675***	0.1884***	0.3145***
FS	-	-0.0413***	-0.6234***	0.2928***	-
Health	-	-	1.6757***	-0.5310***	-
IT	-	-	-	-0.0348***	-
<i>Covariates</i>					
Constant	5.1093***	1.6966***	45.150***	7.1795***	6.3381***
Panel D: Upper-middle income countries					
PJI	0.1716***	0.0018	0.4307	-0.0401	0.0238
FS	-	-0.0530***	-0.4205***	0.3798***	-
Health	-	-	0.8689***	-0.5314***	-
IT	-	-	-	-0.0146***	-
<i>Covariates</i>					
Constant	5.2785***	1.8344***	45.808***	6.4542***	6.9748***
Panel E: High-income countries					
PJI	0.4121***	-0.0137	-0.1414	0.1560**	0.3129***
FS	-	-0.0654***	-0.6436***	0.2840***	-
Health	-	-	0.1765	-0.7496**	-
IT	-	-	-	-0.0228***	-
<i>Covariates</i>					
Constant	5.1552***	1.7719***	47.190***	7.0588***	6.4408***

Appendix B

Serial mediation analyses STEP 1 – Estimation outcomes for employed individuals

Independent variables	Outcome variables				
	FS	Health	IT	LS (Eq. 4)	LS (Eq. 5)
Panel A: All countries (employed)					
PJI	0.1981***	-0.0478***	0.2485***	0.0528***	0.1511***
FS	-	-0.0676***	-0.4035***	0.3336***	-
Health	-	-	1.1664***	-0.5425***	-
IT	-	-	-	-0.0104***	-
<i>Covariates</i>					
Constant	5.0563***	2.0108***	41.009***	6.0953***	6.4495***
Panel B: Low-income countries					
PJI	0.0731	0.0069	-0.3853	0.0442	0.0808
FS	-	-0.0386***	-0.4852***	0.4392***	-
Health	-	-	1.4370***	-0.4103***	-
IT	-	-	-	-0.0012	-
<i>Covariates</i>					
Constant	5.8788***	1.3949***	43.298***	3.9971***	6.051***
Panel C: Lower-middle income countries					
PJI	0.2057***	-0.0444***	-1.1725***	0.0561	0.1878***
FS	-	-0.0527***	-0.3965***	0.3369***	-
Health	-	-	2.0474***	-0.4492***	-
IT	-	-	-	-0.0275***	-
<i>Covariates</i>					
Constant	5.4439***	1.677***	41.145***	6.6849***	6.7429***
Panel D: Upper-middle income countries					
PJI	0.0209	-0.0113	0.629***	-0.0196	-0.0100
FS	-	-0.0763***	-0.4465***	0.3256***	-
Health	-	-	0.9875***	-0.5718***	-
IT	-	-	-	-0.0077***	-
<i>Covariates</i>					
Constant	6.348***	2.0314***	43.447***	6.4854***	7.317***
Panel E: High-income countries					
PJI	0.3686***	-0.0798***	0.4964***	0.1283***	0.2991***
FS	-	-0.0590***	-0.3581***	0.3135***	-
Health	-	-	0.8114***	-0.5574***	-
IT	-	-	-	-0.0051**	-
<i>Covariates</i>					
Constant	5.211***	2.0989***	43.571***	6.157***	6.5727***