

# **Informal employment under the skin: informality and health inequalities among Chilean workers**

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## **Abstract**

Informal employment has been identified as an important social determinant of health. This article addresses the processes through which informal employment affects workers' health in Chile. The study's methodological approach was based on qualitative interviews with 34 formal and informal workers. The findings show how workers perceive informal employment as negatively affecting their mental and physical health through different dimensions of their living and working conditions. Incorporating a gender perspective proves to be integral to the analysis of these processes. The article concludes by discussing how neoliberalism underlies such vulnerability processes and negatively impacts on the population's health.

## **Keywords**

Informal employment, neoliberalism, health inequalities, social determinants of health, working conditions, living conditions, gender inequalities, Chile

## **Introduction**

An understanding of health that goes beyond the hospital-centric biomedical model and the narrow focus on risk factors related to individual lifestyles exposes the social causes of disease and their deep political roots.<sup>1</sup> Within this frame, neoliberalism and its manifestations in neoliberal economic and social policies have been highlighted as crucial determinants of health and well-being worldwide.<sup>2</sup>

Neoliberalism is connected with adverse global health outcomes through complex systemic, dynamic, multilevel, and multicausal processes.<sup>3,4</sup> Employment has gradually lost its role as a source of guaranteed rights and social protection.<sup>5</sup> Given that informality is an employment condition closely associated with state deregulation,<sup>6</sup> we argue that the expansion of informal employment is also an important way in which neoliberalism has become embodied in ill health, focusing specifically on the study of an emblematic context, that of Chile, which has served as a social laboratory for the implementation of neoliberal economic and labour policies. While informal employment clearly preceded the development of neoliberalism, the

institutionalization of informality and its widespread extension beyond the private market to the public sector has happened hand in hand with the implementation of such policies.

Although informal employment is widespread worldwide, it has rarely been analysed from the point of view of health inequalities.<sup>7</sup> Some studies have identified an association between informal employment and ill health.<sup>8,9</sup> Informality has been shown to be related to worse self-perceived physical and mental health,<sup>10</sup> but there is a lack of research on how workers experience such relationships, which is needed to advance our understanding of the ways in which neoliberal socioeconomic policies eventually get “under the skin.” The main aim of this article is thus to fill this gap by deepening our understanding of how workers perceive informal employment as adversely affecting their health and producing health inequalities. A second aim is to incorporate a gender perspective into the understanding of these processes. We do so by tracing the links between different dimensions of living and working conditions and negative health outcomes according to the experiences of formal and informal Chilean workers by means of a qualitative research design.

### **Informal employment as a social determinant of health**

Changes in labour markets since the 1980s have led to the proliferation of more precarious forms of employment both in advanced economies and beyond, so that employment has gradually lost its role as a source of guaranteed rights and

social protection.<sup>5</sup> These transformations have had an unequal and detrimental impact on the population's health to the extent that, drawing on increasingly available scientific evidence<sup>11</sup>, Williams, Schrecker and Bambra declared employment insecurity one of the “neoliberal epidemics” worldwide.<sup>12</sup>

Studies have delved into the harmful health consequences of unfavourable employment and working conditions, showing a higher prevalence of occupational accidents<sup>13</sup> and an increased risk of suffering from poor mental health.<sup>14,15</sup> Despite this increasing interest in the impact of working and living conditions on health,<sup>16</sup> few efforts have been made to examine the processes behind such associations, particularly concerning the relationship between informal employment and health.

#### *The effects of informal employment on health*

Informal employment is an adverse employment condition which has been conceptualized as a category of employment conditions that is different from precarious employment<sup>7</sup>. According to the International Labour Organization,<sup>17</sup> informal employment is an unregulated form of work that can present different characteristics depending on whether it takes place in the formal or informal sector or in households. This absence of regulation includes the lack of a formal

agreement between employers and employees<sup>1</sup>, as well as a lack of labour regulation and/or social protection.<sup>18</sup>

The few studies examining the impact of informal employment on health have shown a clear association between informality and poor mental health.<sup>9,19,20</sup> They have also revealed its physical repercussions on occupational health.<sup>21,22,23</sup> The clearest evidence in this direction is provided by empirical studies analysing informal employment and workers' health from a population perspective.<sup>8,24</sup> These studies consistently reveal a (gendered) association between informal employment and ill health. However, we know little about either the processes by which informality affects health or the gendered nature of this relationship.

We expect informality to have specific detrimental effects on health due to the lack of social protection and labour regulations. These distinctive features are likely to produce specific outcomes in terms of perceived insecurity, material deprivation, social isolation, and access to safety measures, affecting physical and mental health.

Our theoretical approach draws on a broad definition of health that considers general feelings of malaise or discomfort, such as suffering, a sense of failure,

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<sup>1</sup> Note that a formal agreement can be either written or verbal, as long as it complies with the employers' and employees' legal rights and duties. Nonetheless, in practice a verbal agreement does not ensure legal protection, which is why the Statistical Manual of International Labour Organization (2012) has recommended recognising only written contracts as formal contracts.

anguish, and depressive states—all elements that have been associated with the harmful characteristics of employment, such as non-recognition, intensification of work, and isolation.<sup>25</sup> Therefore, we understand health effects as the systematic expression of different signs or symptoms of discomfort which are triggered by material conditions, situations and states related to poor living and working conditions.

#### *The need for a gender perspective*

A number of studies have examined the relationships among different dimensions of employment conditions as gendered determinants of physical and mental health.<sup>26</sup> However, to our knowledge, no studies have yet examined the processes through which informality affects health from a gender perspective. This gap exists despite women being over-represented in informal employment across the world.<sup>27</sup> Women's over-representation in informality has been attributed to the fact that they are widely employed as domestic workers<sup>28</sup> and that they are the main performers of home-based work,<sup>29</sup> both types of work that generally take place within an informal employment relation. In Latin America, women's labour market participation has increased significantly in recent decades, not least as part of households' strategies to supplement their incomes.<sup>30</sup> Such increases in women's employment have mainly been in the informal sector, which accounts for more than 80% of job creation in some countries.<sup>31</sup>

Previous research has also established that, compared with those in a formal employment relationship, informality results in worse health outcomes for Chilean workers<sup>32</sup>, although the relationship was only statistically significant for men: formal employment did not seem to have the same protective effect for women.<sup>10</sup> This highlights the importance of applying a gender perspective to the analysis of the relationship between informality and health, which, theoretically and analytically, considers the links between gender segregation and working conditions that potentially impact on health, as well the interrelations between productive and reproductive work.

### **The Chilean context**

Informal employment has become increasingly widespread, even in advanced economies,<sup>33</sup> following neoliberal structural labour market reforms over the last four decades. In Latin America, a significant share of informal activities have been subordinated to the formal economy through downsizing, subcontracting, and outsourcing processes, resulting in a loss of social protection for workers.<sup>30,34</sup> In 1990 informal employment reached 40% of the active population in Latin America<sup>31</sup> and has remained at very high levels ever since, even through the pandemic period.<sup>35</sup>

Chile has been considered an early and paradigmatic example of the implementation of neoliberal policies in the region, notably during the civic-military dictatorship of 1973 to 1990.<sup>36</sup> A series of radical reforms severely

transformed the labour market, resulting in the proliferation of informal employment. A salient characteristic of these processes has been the downsizing of public employment through the expansion of contracts for service provision, which are civil agreements under which there is no labour link with the service's commissioner<sup>37</sup>. Significantly, these new forms involve a skilled labour force, with the public administration as a main commissioner of their services, in a context of depleted public budgets and restrictions on public employment. This represents a qualitative transformation that has contributed to the normalization and institutionalization of informality. These reforms were accompanied by the expansion of ideologies of entrepreneurship and individual effort and responsibility.<sup>38</sup>

Moreover, due to market deregulations and an active policy of dismantling trade unions, unionization and union activity have decreased, while entrepreneurship has been promoted.<sup>39</sup> In this context, the recent increase in the employed population has been in large part due to the rise in self-employment (increasing by 5.3% in 2016, 2.0% in 2019, 8.0% in 2021, and 4.3% in 2023<sup>40</sup>), a category which often falls within the definition of informal employment,<sup>41</sup> and characterized by low wages. The average monthly wage for self-employed workers is US \$480 (while the national average wage is US \$849), although half of these workers earn less than US \$570.<sup>42</sup>

Although the share of informal employment in Chile is lower than in most Latin American countries,<sup>43</sup> with official reports placing it at 27%,<sup>44</sup> studies show that

this figure has been significantly underestimated and that informality actually accounts for almost 40% of all employment.<sup>41</sup> This percentage rises to 45% among women, approximately 10% higher than for men.<sup>10,31</sup>

## **Methods**

### *Research strategy*

This study used a qualitative methodology inspired by grounded theory<sup>45</sup> to explore the experience of informal employment and the process whereby informal workers in Chile perceive its effects on health. The study developed an abductive strategy,<sup>46</sup> starting from the broad *a priori* standpoint that employment has repercussions on health and the quality of life through its effects on living and working conditions.<sup>47</sup> This strategy aimed to identify how workers perceive the processes by which these two domains (living and working conditions) affect their health. The approach and research instruments were approved by the Ethical Committee of Clinical Investigation of *Parc de Salut MAR de Barcelona*.

### *Data*

The data for the study were obtained from semi-structured interviews conducted with 34 workers, selected by means of an intentional sampling strategy that sought the inclusion of the full spectrum of types of formal and informal employment, as defined in Ruiz et al.<sup>37</sup> The sample included four groups of

workers: dependent formal workers (salaried with contracts, homeworkers with contracts and domestic workers with contracts), dependent informal workers (salaried with fee contracts, homeworkers with fee contracts, salaried without contracts, homeworkers without contracts, domestic workers without contracts and family workers), non-dependent formal workers (employers with five or more workers and self-employed professionals) and non-dependent informal workers (employers with fewer than five workers and non-professional self-employed). We defined those subject to an employer-employee relationship dependent workers, and those who worked independently—i.e., had several clients but no employer – non-dependent workers. Table 1 describes the sample in detail and provides the codes used to identify excerpts from interviews. Initial access to participants was facilitated by the NGO Fundación Sol, followed by snowball sampling. All in-depth interviews were conducted by the article’s first author and addressed a range of themes, including employment and working conditions (current and former), quality of life and self-perceptions of health (including both work injuries and illnesses) and other broad expressions of physical and mental health-related issues. We also targeted their coverage of basic needs, and unpaid caring responsibilities. Interviews had an average duration of 100 minutes. The fieldwork was conducted between September 2014 and July 2015 in the capital of Chile, Santiago. We argue that the data we collected still demonstrates the reality of the Chilean labour market, given that its legal framework and structural characteristics have remained mostly unchanged.

Table 1 here

### *Analysis*

Interviews were analysed following the constant comparative method<sup>48</sup> in a process of hierarchical coding using Atlas.ti version 7.5 software. The codes were constructed abductively based on flexible theoretically derived guidelines, allowing significant room for emerging codes. The coding process led to the identification of relevant dimensions and subdimensions of working and living conditions that were perceived to trigger health effects. Interviews were first coded and analysed vertically, that is, taking the experience of each participant as a whole into account. Second, horizontal analyses were performed to identify the similarities and differences between the cases. In this way, we examined the particularities and shared realities of informal workers in contrast to formal workers, and their implications in terms of health and quality of life. While the accounts of formal workers were used as a reference for comparison, we drew mostly on excerpts from informal workers as an illustration of the main findings.

### **Findings**

The analysis of the interviews allowed us to identify a range of dimensions and subdimensions of living and working conditions that workers perceived affecting their physical and mental health. Tables 2 and 3 present a summary of these perceived effects and indicate whether they were identified among formal and/or informal workers for the domains of living and working conditions

respectively. Uncertainty and material scarcity are the two main dimensions of living conditions through which informality is experienced as affecting health. Psychosocial risks, a lack of safety measures, and extended availability and working times are the three dimensions of working conditions relevant in the same regards.

Some of the conditions and situations identified within each dimension are relevant to both formal and informal workers as a result of the often-precarious employment conditions of the former; others are specific or more applicable to informal workers, stemming from their lack of regulation and social protection. The commonality or specificity in the experience of the different factors has been systematically identified in Tables 2 and 3, while in Table 4 we focus on the commonalities found in feminized employment sectors. Such commonalities account for the lack of the protective effect of formal employment for women, which is explained in more detail in the corresponding sub-section of the findings.

The findings apply to both dependent and non-dependent workers, unless otherwise indicated. The dimensions and subdimensions presented in detail in the tables are identified in the text by the number of the table and the subdimension code (e.g., 2a6).

*Living conditions: uncertainty*

The dimension of uncertainty comprises different processes related to a lack of stability, producing insecurity and difficulties for anticipating or planning for one's future—particularly common and intense among informal workers due to their lower wages and lack of employment regulations. Institutions have insufficiently addressed the needs of informal workers (2a6), particularly the impossibility of their making future plans (2a1). This leads to a strong sense of vulnerability and injustice, distress and mental wear and tear. As one interviewee expressed it:

*Vulnerability – that's the word, feeling vulnerable. Developing short-term life strategies ... you limit your possibilities of human development for that reason because you don't know if you will continue working. Issues of projecting oneself, of having that possibility of planning in the long-term, that's problematic when there is no work.*  
(4a male)

Dependent informal workers also experience constant abuse from employers (2a7). Abuse can occur without the employer being held accountable, since these work activities have not been officially declared. Such abuse generates permanent feelings of anguish, a sense of injustice, and stress, resulting in poor health:

*They pay you on Wednesdays of the other week, they pay you on Monday, [they say] we have not been able, we'll deposit it on Saturday, on Sunday. If we did not manage that money well, we would most likely always be without money on Friday.... They never pay us on Friday ... everywhere we have worked it's the same story.* (7a female)

The situation of uncertainty is exacerbated among dependent workers because of the insecurity caused by the possibility of dismissal and eventual unemployment (2a4).

Even though the experience of uncertainty is common to formal and informal workers, informal workers do not receive benefits or monetary compensation when they are dismissed. This heightened uncertainty is related to distress, anguish, and a sense of injustice, resulting in a greater dependence on the employer. In the specific case of **family workers**, they suffer a lack of economic independence, especially when their pay is based on daily profits that are unpredictable and fluctuate (2a5). This uncertainty forces them to maintain the bond with the family business, which leads to issues of self-esteem.

*Living conditions: material scarcity*

This second dimension refers to scarcity in the most tangible ways, mainly associated with income. Both informal and precarious formal workers experience problems meeting basic needs from low incomes. However, **dependent informal workers** fall outside the scope of regulation guaranteeing a minimum wage, which is one main factor that explains their low wages (2b2). This leads to a state of vulnerability that is aggravated, as it often adds to other abuses from employers, such as delays in paying or the failure to pay wages:

*Spending so much time working, from 10 am until 9 pm, almost 12 hours, and barely seeing [getting paid] anything, practically nothing, or seeing very little, the*

*minimum, but when I tell you that it is the minimum, it is the minimum.... It is useful to pay your bills, to go to the supermarket, buy something for the week, and that's it. (7a female)*

**Both dependent and non-dependent informal workers** need to pay for their own work tools (2b4), which results in a reduction of income and material resources, with workers experiencing a lack of control, anguish, and anxiety. Additionally, in the absence of an employment contract, informal workers cannot contribute to a pension scheme and need to rely on state subsidies upon their retirement (2b3):

*They have always told me that when I retire I won't have anything.... Now I need to focus on myself and that implies contributing for my retirement, because if I don't do it, I won't have anything. (8a female)*

**Non-dependent informal workers** are also usually compelled to reinvest their profits in new projects to keep the business running (2b5), thereby generating temporary indebtedness that produces high levels of anguish:

*I have a flea market and I have two months without any [income], and also that is strongly affected by the money I invest, or the portion of money that I have to reinvest remaining from previous projects.... I have vulnerability, that is, it's hard paying the money I need to pay for my daughter, I don't have social security.... It has a great impact in the psychological aspect ... always making bets, starting all over again, and that's very stressful, highly stressful. You have to reinvent yourself again and again. (12b male)*

Moreover, **non-dependent informal workers** with employees do not have enough capital to offer jobs with adequate working conditions, thus transferring

their instability to their employees. Employers who have periods of financial insecurity still need to pay for their staff throughout the year. Non-regularized (informal) employers often do not have sufficient resources to provide dependent workers with formal contracts (2b7), or they neglect their own situation by not paying their social security contributions (2b6). This uncertainty leads to fear, anxiety, and stress, which can trigger severe mental health problems:

*Those [employers] who are more nervous and anxious, the days of paying taxes, salary or social security, have a nervous breakdown, because when you don't meet all the resources needed.... They suffer, there are suicides, there are divorces, there are a thousand things. (13a male)*

Table 2 here

*Working conditions: psychosocial risks*

Psychosocial risks include physical and organizational isolation and situations of abuse at work, with a lack of measures to counteract them. Concerning this dimension, formal and informal workers share a sense of non-recognition (3a1). In addition, **non-dependent informal** workers experience high cognitive demands (3a2) when they are required to have certain competences to develop a successful business, thus requiring certain self-management skills for which they are ill prepared. Consequently, they experience anxiety, anguish, a sense of being overwhelmed, and low self-esteem—issues that increase in the face of

non-recognition resulting from the institutional invisibility associated with informality:

*The vast majority of entrepreneurs are obliged to, because they didn't find other work, but they are not skilled enough to be good entrepreneurs.... The poverty is shared; they get little, but their workers also get little.... The whole system pushes them to cheat, to avoid taxes.... They don't have training, they don't have resources, they don't have access to credit. They face only adverse situations. (13a male)*

Both formal and informal dependent workers suffer from the sorts of abuses of power that are typical of hierarchical relationships, such as labour harassment (3a3). However, **dependent informal workers** are more exposed to these practices, especially for women. They are less protected against them in the absence of any institutional and legal framework. These situations generate a sense of injustice, rage, and distress:

*When I entered [the job], there were plant managers offering [workers] to continue with the work in exchange for being sexually intimate, and they did it several times. There were people so desperate to work that they did it. (4a male)*

Informal workers also experience a devaluation of the work they perform, which is reinforced by the awareness of their poor working and employment conditions:

*The treatment is different, unworthy, of the worker without a contract, eventual or occasional, as they call it.... Here you have first and second-level workers, ones you [employee] comply with, [are] up to date with their contributions, taxes and contracts, the visible face of the*

*company, the first folder; but you have another folder behind, where you have people in a deplorable situation.*  
(6a male)

Physical and organizational isolation (3a4) is another characteristic of informal workers, which is aggravated by their lack of a right to unionize, fostering distress, feelings of loneliness, and fragility.

*Working conditions: the lack of safety measures*

This dimension refers to the lack of an institutional framework guaranteeing the provision and enforcement of preventive safety measures. The situations and conditions related to this dimension are particularly acute among informal workers, as they suffer from the lack of an institutional or organizational structure to provide and enforce the use of prevention measures (3b1 & 3b2). The responsibility for ensuring occupational health lies with the workers themselves, who do not have the training, resources, or tools to develop prevention and protection strategies. This enhances the risk of accidents and occupational disease, which may become chronic and eventually disabling:

*It's just a matter of them looking after themselves, because I have even gone to visit colleagues in sewing workshops where they are working at night and with almost no light!*  
(7a female)

*Working conditions: Full availability for employment and extended working times*

This dimension relates to extended working times and the limited opportunities for rest. There are cases of both formal and informal workers who need to extend their working hours (3c1), but informal workers in particular lack control over their income and/or work volumes, and there is no institutional framework to serve as a back-up against instability and material deprivation. As a result, **informal workers** often combine two jobs without time to rest. Working at two jobs means working in parallel on two or more projects as a way to ensure some income stability, which is often more than they can handle (3c2). These workers are forced to be constantly available and in touch with their jobs, leading to exhausting work days, with scarcely any time for recovery and leisure. As a result, both body and mind are over-exerted, the worker being affected by a permanent state of tiredness. The consequences for their health include sleeping disorders, anxiety, and exposure to the effects of a bad or insufficient diet:

*Now [I work] approximately 50 hours, but there were times when it was 70, 80 hours, and even 100.... Very poor quality of life.... When I had a lot of jobs, I had medical leave because of stress, I got pretty sick. You get into a maelstrom.... I naturalized it, I thought I was capable of doing it, and it brought me consequences. In fact, I have a lot of health problems primarily due to stress. Depression as well. (4a male)*

Moreover, the absence of a contractual relationship means that **informal dependent workers** are denied the right to breaks, vacations, and sick leave

(3c4). For **informal non-dependent workers**, the inability to take these periods of rest stems from the need to increase their work volumes, a need derived from their insecure and precarious material situation:

*My health is poor. It was good until recently, but old age already started, my bones hurt with the cold.... Since my 40s, I have never rested.... Basically, since I started in the flea market [of fruits and vegetables], I have not rested.*  
(12a female)

The impossibility of taking periods of rest to enable the body to recover mentally and physically produces feelings of being overwhelmed, anxiety, and stress. Moreover, physical and mental weariness may lead to chronic diseases that turn into disabling conditions (3c3).

Table 3 here

#### *The gendered relationship between informality and health*

The findings show that gender affects the relationship between informality and health in different ways, which can be synthesised in two main respects: the specificity of feminized activity sectors, and the persistence of the sexual division of labour (Table 4). The situations and processes described below affect, in general terms, the female working population as a whole, and not only informal workers. This finding could explain the lack of differences in health outcomes between formal and informal female workers observed by Ruiz et al.<sup>10</sup>

The first axis alludes to the fact that feminized activity sectors are particularly marked by precarious employment and working conditions, low social and

economic value, the lack of recognition of occupational diseases, and specific problems for collective organization. The retail trade is a paradigmatic example of deficient working conditions crossing the frontiers of formality and informality. The lack of breaks, the heightened intensity of work, and the exposure to all sorts of sanitary and health risks (4a5) generate a permanent state of fatigue and sleep disorders. Similarly, seasonal agrarian workers, whose employment opportunities are limited to a specific period of the year, tend to increase their working hours, working without rest and for prolonged periods of time, regardless of whether they have an employment contract or not:

*Women in the fruit [industry] are the most vulnerable – they do the most precarious jobs in this country, after domestic work, after the clothing industry.... Women [in the clothing industry] are in an extremely precarious job because, with their own infrastructure, in their house, they have to do the seams, the dressmaking for the [sewing] workshops. That is the most absolute precariousness because you don't have any benefit, you don't have anything to go to a doctor, or primary care, you have nothing.... The wages for agro-industry remain stalled. What happens is that there are women who are working a lot to get very low salaries.... [This] means working overtime, and overtime, from eight am until one am. (1a female)*

Considering female employment as component wages<sup>49</sup>, that is, as income supplementing the male breadwinner's, explains the more extensive social tolerance of women's informal employment (with respect to men's) and often serves to justify employers' malpractice, such as the absence of social security contributions. This is the case in the textile industry, where employers do not keep up with contributions or do so at a minimum wage level. In the medium

term, female workers have reduced opportunities for retirement and need to prolong their working lives, decreasing their quality of life in old age:

*In the textile area, all our fellow workers who are older than 60 continue working; and they don't work until 65, they work until they cannot anymore.... We have fellows working in companies older than 76.... That's because retirement is very little, it's not enough for them to live. (1b female)*

The undervaluing of women's work and its translation in terms of precarious working conditions, low wages, and the lack of social protection are widespread characteristics of women's employment generally; a notorious example is that of domestic employees. Strenuous working hours and full availability result in chronic fatigue for these workers. Often, their night's rest is not respected, which increases the psychological burden. Together with sleeping disorders, resulting in a permanent state of exhaustion, domestic workers seem to suffer most from the lack of value attributed to their work. They themselves hardly value the work they perform, and report doing the job out of need. They express low self-esteem, aggravated by the psychological abuse they occasionally endure. The case of domestic workers clearly exemplifies how the domestic sphere, traditionally associated with femininity, allows for particularly poor employment and working conditions and the lack of social protection:

*If I am already mistreated psychologically and they tell me that I'm crazy, it's striking. That's where the girls fall down, they sink, here [the domestic workers' association guesthouse]. Girls arrive very wounded psychologically.... Because of the psychological abuse of the employers, and*

*of the children, who are sometimes more cruel.... Many girls suffer from depression for that reason. (3a female)*

The damaging working conditions in feminized sectors, such as the agrarian or textile industry, are associated with specific occupational diseases. However, these are frequently not recognized and thus remain without any kind of coverage, as is the case for domestic workers. Cognitive and physical exhaustion is aggravated if occupational diseases, such as stress and depression, are not treated (4a3).

Women also encounter more difficulties in articulating their demands in terms of trade union representation (4a4). They report problems in situating their demands within the trade unions' agenda:

*Many times, you asked to speak and they didn't want you to because you were a woman, until I understood that nobody listens to someone who doesn't shout. So, I learned to bang on the table, I learned to impose myself.... In the union world, you have to be three times better than men to achieve something.... I have felt a lot of discrimination. (1b female)*

The second axis intervening in the relationship between informality and health from a gender perspective relates to the persistence of the gender division of labour, which results in women's heavier overall workloads, given that they are still assuming most domestic and care labour in addition to their employment commitments. This workload has important repercussions on psychological health due to the heightened levels of stress (4b1). When women are the main or sole providers for their households, this situation of elevated overall

workloads is aggravated because of the prolongation of their working hours, resulting in illness and a decreased quality of life.

*I have a fellow, she starts working at 9 am and ends at around 5 am, can you believe? She goes to bed around 5:30 and gets up around 8 am, sleeps very little.... She works during the day, does things [domestic work], and at night she works [as a seamstress] and sleeps four, three hours, two hours. (7a female)*

Additionally, the persistence of the ideal of the male breadwinner and female caregiver, and thus of women's work as component wages, produces for some women a lack of economic independence with respect to their male partners (4b2). This dependence can have repercussions on their psychological health, generating frustration and low self-esteem. Finally, women's tendency to prioritize the needs of other family members before their own can also be related to their role as primary carers for the family (4b3). This is the case for female microentrepreneurs, who tend to postpone their social security contributions to provide for the needs of other household members. These situations have serious consequences for women's level of social protection in the medium and long term.

Table 4 here

#### *Other sources of inequality*

Analysis of the interviews also revealed other factors that intervene in how informality affects health, either by protecting or over-exposing workers to

negative health outcomes. Among these, it is important to highlight the following: a) self-care awareness, that is, awareness and knowledge about how to prevent possible ailments and illnesses resulting from one's job, or how to take care of oneself in the event of illness, which is often related to having a high educational level or specific training; b) resources derived from personal relations, that is, possessing a social network facilitating access to employment opportunities and social and community support; c) the composition and protective capacity of the household—for instance, being able to access a family health plan; and d) property ownership, which may provide endorsement in given situations, for instance, in applying for a bank loan. All these elements relate to the worker's social position more generally, reflecting how social inequalities manifest themselves in health inequalities and, more specifically, how they intervene in the relationship between informality and health.

## **Discussion**

In this article, we identified the processes whereby informality leads to negative effects on workers' health and well-being in Chile by comparing the situations of formal and informal workers. The results showed that the situation of informality results in exposure to hazards, which are associated with five crucial dimensions of informal workers' poor living and working conditions: uncertainty, material scarcity, psychosocial risks, full availability for employment and extended working times, and lack of safety measures at work.

Such exposure has consequences for both mental and physical health, ranging from physical exhaustion to feelings of anguish, stress, frustration, and low self-esteem. Figure 1 synthesises the model we put forward to explain the perceived links between informal employment and health inequalities.

Figure 1 here

Our results are in line with previous research showing the health-damaging effects of the different forms of insecurity experienced by non-standard workers<sup>50</sup>. Furthermore, our research develops a more comprehensive and exhaustive view of the implications of poor employment conditions on specific domains of both living and working conditions. Our research results also go beyond the identification of risk factors in the working conditions of particular jobs (such as street vendors or waste pickers) (see, for instance,<sup>54</sup>) to focus on the common and broader implications of the core elements of the informal employment relationship, namely the lack of regulation and social protection.

However, beyond the observed commonalities derived from such inner features of informality, certain groups of workers with specific situations of informality are exposed to distinctive threats with differential effects on health. Informal dependent workers (that is, salaried workers and homeworkers without contracts or with fee contracts, or domestic workers without contracts and family workers) are particularly exposed to employers' abuses of power, which produces anguish and stress. For informal non-dependent workers (that is, employers with fewer than five workers and non-professional self-employed),

it is the need to reinvest resources, resulting in temporary indebtedness, that generates anguish. In turn, major sources of stress for informal employers are the difficulties in regularizing their situations and those of their employees.

On a more interpretative level, these experiences can be understood against the backdrop of underlying structural factors – which in Link and Phelan’s terms<sup>51</sup> could be considered fundamental social causes of disease that modulate people’s exposure to risk factors. First, among dependant informal workers, the informal employment relationship magnifies the power imbalance that characterizes the employer-employee relationship due to the lack of any protective legal structure to rely on and their specific difficulties in terms of collective organization and representation rights.<sup>52</sup> Second, in the absence of social policies articulated to counteract the increased pressures of the market, workers remain increasingly exposed to its risks<sup>53</sup>.

The experience of informal non-dependent workers in particular is marked by their situation of apparent freedom, one where the workers are often unprepared to operate within a competitive market place.<sup>52</sup> As a result, they are constantly threatened by poverty,<sup>54</sup> and socially are held responsible for their own failure or success<sup>38</sup> according to a narrative of opportunity and freedom underlying the neoliberal presentation of autonomous informal workers as micro-entrepreneurs.<sup>30</sup> These conditions force non-dependent informal workers into situations of apparently self-imposed heightened workloads, which triggers a lack of time and of opportunities to rest. In this way, the article illustrates

empirically the health effects of what have previously been theorized as systemic pressures to achieve and produce self-exploitation<sup>55</sup>.

The empirical findings also suggested possible explanations for the lack of a protective effect of formality on women's health, as identified by Ruiz et al.<sup>10</sup> These explanations refer to two types of dynamics: a) the special incidence of precarious working conditions, low wages, and a lack of social protection among feminized activity sectors; and b) the persistence of the gender division of labour. These situations, which affect the female working population as a whole, and not only informal employees, could account for the generally poorer health conditions of working women relative to men, and for the lack of differences between informal and formal female workers observed in quantitative studies. These findings are consistent with research in other countries suggesting that gender inequalities in health are rooted in wider processes of gender inequality, reflecting differential employment and working conditions, unequal earnings, and the burden of unpaid work falling on women.<sup>26,49</sup>

The blurring of the boundaries between formal and informal employment may not only be relevant among the female population, but may also be occurring because of neoliberal reforms promoting deregulation, flexibilization, and the resulting precarization of labour markets.<sup>30</sup> In this sense, despite the particularly disadvantageous situation of informal workers, some of the harmful aspects of informality are not unique features of the informal employment relationship, but

may rather reflect the characteristics of the position these workers occupy within a secondary or peripheral segment of the labour market.<sup>5</sup> The situation of women illustrates this point paradigmatically, with gender segregation leading to particularly poor employment and working conditions in female-dominated sectors, which adds to the higher overall workloads resulting from the unequal division of reproductive labour. Such factors would seem to hinder the protective effect of formality on physical and mental health.

#### *Strengths and limitations*

Our study not only developed a comprehensive and systematic understanding of how workers perceived the relationship between informality and health across the different dimensions of living and working conditions, it also did so in the context of the Global South, which has been historically understudied. However, it has limitations that should be taken into account and be addressed in further research. First of all, concerning the temporal relevance of the article, it must be noted that the lack of regulation and social protection is likely to have had specific detrimental health outcomes during the economic, social and health crisis triggered by the pandemic. While this study does not capture such developments, it provides an interpretative framework for understanding potential changes.

Other limitations concern the sample composition, with its under-representation of the migrant population, which can be challenging to reach. Further research should delve into the specifics of informal migrant workers to identify how their

informal employment position intersects with other inequalities derived from their non-legal residential status, racial discrimination and limited support networks in producing damaging health outcomes. It is also necessary to deepen the knowledge of the differences among sub-types of informal workers (such as family workers, homeworkers, etc.), including how they benefit or are excluded from specific social policy resources and programs, and how this is perceived to affect workers' health and well-being. Finally, incorporating the views and strategies of employers and other actors of the system could also be helpful in designing fine-tuned policies oriented towards the reduction of informal employment in the Chilean context.

#### *Policy implications*

As a whole, this study sheds light on a problematic issue for public health and highlights the need to develop public policies supporting forms of employment that are more sustainable for the health and quality of life of workers. In the face of the empirical evidence showing the negative repercussions of informality on health, public policy should aim to guarantee the formalization of dependent workers by, among other possible measures, promoting inspection and control systems, increasing the incentives to employers, and abolishing fee contracts for public servants. Moreover, continued training for non-dependent workers should be implemented by public offices. In addition, by identifying intermediate steps in the process by which informal employment produces poor health, the results of the article enable the identification of possible points of

intervention, such as guaranteeing minimum or basic income to reduce income uncertainty, reinforcing occupational health and safety preventive culture and enforcement systems. The lack of protection for formal employment for women shows the relevance of establishing a gender-mainstreaming agenda that permeates every single policy, most importantly in the domains of employment and care-giving. In all, adopting a “Health in All Policies” approach that regulates and ensures living wages and universal social protection schemes, together with specific institutional support for the most disadvantaged groups of workers, can be crucial in mitigating the health inequalities that result from situations of informality.

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## Tables

**Table 1. Sample characteristics**

Group	Profile	Type of jobs	N		
			Total	Women	Men
1	Employees with contract*	a Seasonal, temporary worker, agro-industrial sector	1	1	0
		b Textile worker	1	1	0
		c Mining external worker	1	0	1
		d Retail worker	2	0	2*
		e Retail external worker	4	0	4*
2	Homeworkers with contract	a Consulting company worker, construction sector	2	0	2
3	Domestic workers with contract	a Domestic worker	1	1	0
		a Civil servant	2	1	1
4	Employees with fee contract	b Education sector worker	1	0	1
		c Consulting company worker, education sector	1	1	0
5	Homeworkers with fee contract	a Consulting company worker, service sector	1	0	1
6	Employees without contract	a Truck drivers' assistant to distribution	1	0	1**
7	Homeworkers without contract	a Textile worker	1	1	0
8	Domestic workers without contract	a Domestic worker	1	1	0
9	Family workers	a Flea-market vendor (fruits, vegetables)	1	0	1***
10	Self-employed professionals	a Psychologist	1	1	0
		b Consultant, Service sector	2	1	1
11	Employers with 5 or more workers	a Advertising agency	1	0	1
		b Construction sector, building supplies	1	0	1
12	Non-professional self-employed	a Flea-market vendor (fruits, vegetables)	3	2	1
		b Flea-market vendor (books)	1	0	1
		c Artist	1	0	1

13	Employers with fewer than 5 workers	a	Signage company ( <i>señalética</i> )	1	0	1
		b	Gourmet artisan company	1	0	1
		c	Tourism company	1	1	0
Total interviewees				34	12	22

- Two interviews included more than one participant
- \*\* Includes a formal worker's representative formerly employed as an informal employee
- \*\*\* Includes a non-professional self-employed, formerly employed as a family worker

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**Table 2. Perceived health effects of relevant dimensions and sub-dimensions of living conditions**

Dimensions		Sub-dimensions	Health effects	
a	Uncertainty	1	Inability to make future plans (D)	Sense of vulnerability, sense of injustice, distress, mental wear
		2	Lack of economic independence	Sense of injustice, fragility, low self-esteem
		3	Material scarcity to cover for eventualities	Anguish
		4	Fear of becoming unemployed	Distress, anguish, sense of injustice
		5	Unpredictable and fluctuating income	Anguish, feeling overwhelmed
		6	Institutional invisibility	Sense of injustice, fragility
		7	Abusive practices by employer, e.g., delay in paying wages (D)	Anguish, stress
b	Material scarcity	1	Problems meeting basic needs	Distress
		2	Low income	Sense of fragility, feeling exposed, distress, anguish, poor diet
		3	High dependency on state benefits	Anxiety, anguish
		4	Need to pay for work tools	Anguish
		5	Reinvestment of resources to push forward their businesses: temporary indebtedness (ND)	Anguish
		6	Difficulties with auto regularization/self-protection (ND)	Stress, anxiety
		7	Difficulties with the regularization/protection of employees (ND)	Stress, anxiety

ND: Non-dependent employment

D: Dependent employment

**Table 3. Perceived health effects of relevant dimensions and sub-dimensions of working conditions**

Dimensions		Sub-dimensions	Health effects	
a	Psychosocial risks	1 Formal & informal workers	Sense of non-recognition Cognitive demands (need to have skills that are not capable to manage) (ND)	Low self-esteem Anxiety, anguish, feeling overwhelmed, low self-esteem
		3 Specific or stronger in informal workers	Labour harassment (D)	Sense of injustice, rage, fear
		4 Specific or stronger in informal workers	Isolation	Distress, loneliness, fragility
		1 Specific or stronger in informal workers	Protection measures fall under workers' responsibility	Increased risk of having occupational accidents or diseases
b	Lack of safety measures	2 Specific or stronger in informal workers	Lack of protection measures	Occupational accidents or chronic diseases
		c	Full availability for employment and extended working times	1 Formal & informal workers
2 Specific or stronger in informal workers	Need to take several jobs or more projects than what they are able to manage			Stress, feeling overwhelmed, anxiety
3 Specific or stronger in informal workers	Without any possibility of right to rest because of illness or accident			Physical and mental exhaustion, sense of vulnerability, chronic conditions transformed into disabling diseases
4 Specific or stronger in informal workers	Without the right to break times and with no vacation rights			Physical and mental exhaustion

ND: Non-dependent employment

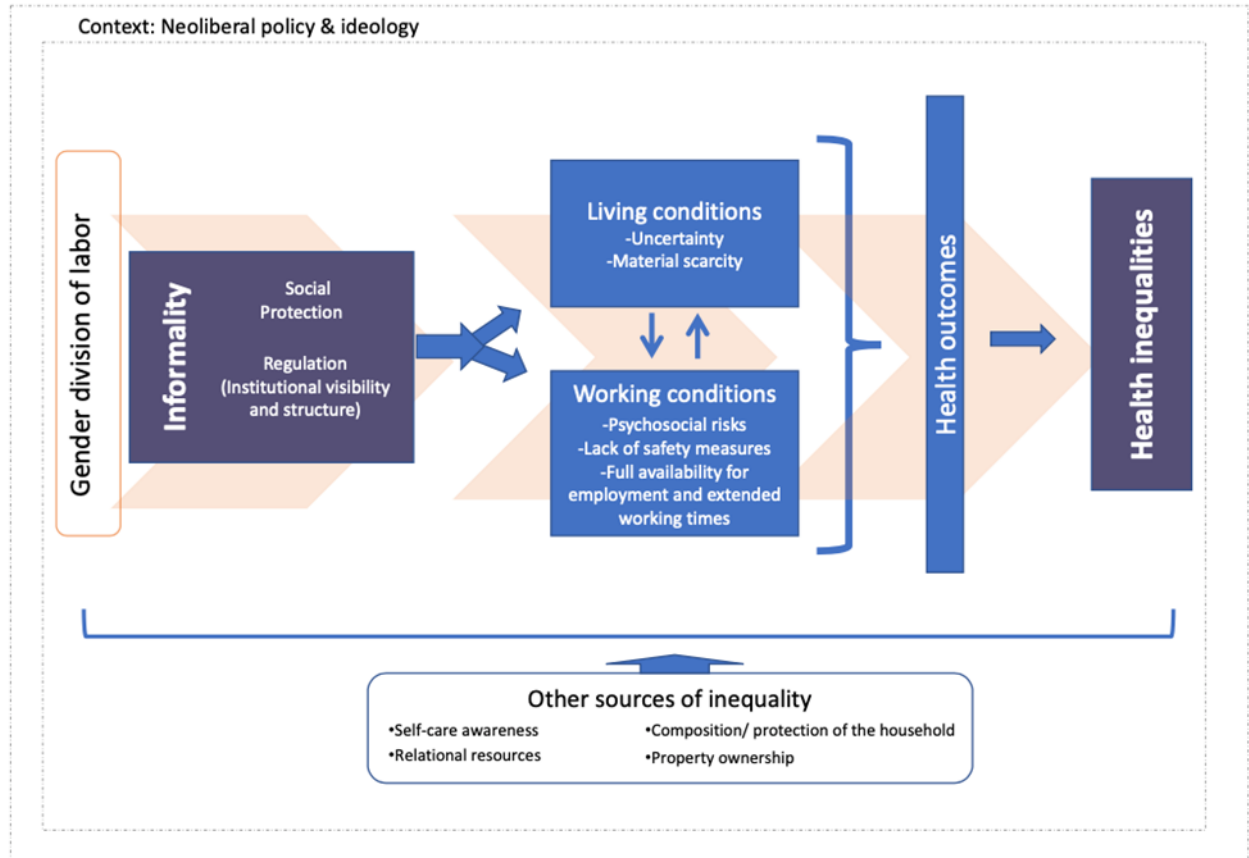
D: Dependent employment

**Table 4. Perceived health effects of relevant gender-specific dimensions and sub-dimensions**

<b>Dimensions</b>	<b>Sub-dimensions</b>	<b>Health effects</b>
a Specific characteristics of feminized activity sectors	1 Work devaluation	Frustration, sense of injustice, low self-esteem, mental health problems (depression)
	2 Low income	Anguish
	3 Occupational diseases not recognized, limited opportunities to rest	Physical and mental wear
	4 Difficulties with the representation of worker's claims (low unionization rates, trade union demands not considered by the major collective organization)	Sense of injustice, frustration
	5 Deficient work conditions (absence of rules on daily rest, exhausting work hours, permanent availability)	Weariness, exhaustion, sleeping disorders, low self-esteem, feeling of non recognition
b The persistence of the gender division of labour	1 Reproductive work assumed mostly by women, high overall workloads	Feeling overwhelmed, stressed
	2 Lack of economic independence	Frustration, low self-esteem
	3 Prioritisation of other's needs: postponement of social protection	Sense of fragility, injustice

## Figures

Figure 1. Synthesis of analytical concepts and findings



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