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ORIGINAL ARTICLE

Fear not? Worker representation and worker concerns about COVID-19 contraction/transmission

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Abstract

Fear of contracting or transmitting COVID-19 had a profound impact on workers' mental health. Although workplaces implemented COVID-19 protective measures, their effectiveness has been underexplored, particularly regarding the involvement of worker representatives. This research examines whether the presence and active participation of worker representatives in negotiating and implementing COVID-19 protective measures relates to reduced concerns about contracting or transmitting the disease. A cross-sectional study using logistic regression models was conducted on microdata from a Spanish survey conducted in April–May 2021 ($n = 19{,}452$). Concerns about contracting or transmitting COVID-19 were studied as dependent variables, whereas the independent variables were integrated into an indicator of participatory implementation of thirteen COVID-19 protective measures. Results show that active involvement of worker representatives in negotiating protective measures is significantly associated with reduced concerns about COVID-19 infection and, to a lesser extent, transmission. Moreover, the presence of worker representatives in workplaces is linked to a greater use of protective measures. Even unnegotiated measures have a positive, albeit smaller, effect. Organisational measures, such as shortening working hours, proved more effective in alleviating infection concerns than personal hygiene measures. In conclusion, active worker participation may serve as a protective factor for workers' mental health during pandemics.

Keywords COVID-19; fear; mental health; protective measures; worker participation; worker representation

Introduction

The COVID-19 pandemic not only severely impacted the physical health of the population (Islam et al 2021) but also their mental health (Santomauro et al 2021). Social isolation and lack of interaction due to lockdowns as well as economic uncertainty were key drivers of increased stress, anxiety, and depression among the general population (Ernst et al 2022; Fetzer et al 2021). Moreover, some occupational groups such as healthcare professionals

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faced extremely high levels of stress and anxiety due to work-related factors (work overload, resource shortages, extended shifts), social and familial issues (social distancing, fear of infecting loved ones, social stigma), and patient circumstances (high mortality rates, ethical dilemmas) (Al Maqbali et al 2024; Sachdeva et al 2022). Other essential workers in non-healthcare fields (agriculture, food industry, supermarkets, maintenance services, social care, etc.) experienced stress and anxiety levels sometimes surpassing those of frontline healthcare workers due to inadequate training, lack of personal protective equipment (PPE), and insufficient employer support (Chowdhury et al 2022; Schou-Bredal et al 2022).

Despite growing literature on COVID-19 and workers' mental health, little is known about whether, and how, worker representation mitigates workers' concerns about contagion and transmission in the workplace. This article addresses the following research question: Is the active participation of worker representatives in negotiating and implementing COVID-19 protective measures associated with lower levels of concern among workers about contracting or transmitting the virus?

This study contributes to research on COVID-19 in the workplace, worker representation, and occupational health by focusing on psychological concerns and fear rather than physical outcomes such as infection or mortality. It further extends the literature by distinguishing between the mere presence of worker representatives and their active participation in protective decision-making processes. The paper also documents inequalities in access to representative protection and shows how concern about infection is concentrated among workers who are most exposed to risk and least protected from an institutional standpoint. The COVID-19 pandemic constitutes a critical case for examining how worker voice and representation function in contexts of heightened risk to mental health and psychosocial protection at work. Understanding these mechanisms remains highly relevant both for addressing future public health emergencies and for the broader literature on occupational health governance and industrial democracy. The article is structured as follows. First, an overview is made of the existing literature on the psychological consequences of the fear of contracting or transmitting COVID-19 and the possible role that worker representation can play in its mitigation. This overview highlights the research gap in this area. The methodology is then detailed, followed by a description of the results, which are presented in two sections differentiating between concern about contracting and transmitting the virus. Finally, the discussion section integrates the findings with previous literature, emphasising their theoretical and practical implications, as well as the limitations of the study and potential future research areas.

Fear of contracting or transmitting COVID-19 in the workplace

Various factors have been linked to augmented mental health issues during the pandemic. Among these, fear of contracting COVID-19 at work and/or transmitting the disease was associated with increased anxiety, stress, depression, insomnia, and decreased psychological well-being in the general population (Alimoradi et al 2022; Luo et al 2021). Fear is understood as 'an anticipatory emotion triggered when a situation is perceived as threatening to our safety or that of others' (Garcia 2017, 462). During the pandemic, this fear extended beyond concerns of personal illness to worries about infecting loved ones and uncertainty about the severity of the disease (Han et al 2021). The coexistence of fear and concern was evident in phenomena such as coronaphobia, defined as 'an excessive response triggered by fear of contracting the virus causing COVID-19, leading to excessive worry about physiological symptoms and significant stress from personal and occupational losses' (Arora et al 2020, 2). Accordingly, some studies employed

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indicators of worry about coronavirus to measure fear (Ahorsu et al 2022; Mertens et al 2020).

Mental health issues derived from fear of contracting or transmitting COVID-19 were amplified among workers in both essential and non-essential sectors, because workplace conditions were often conducive to COVID-19 transmission. This includes conditions such as close physical proximity and frequent social interactions with colleagues, supervisors, clients, students, or patients (Giorgi et al 2020). To curb virus transmission and alleviate psychological consequences, the Spanish government, like many others, established occupational risk prevention protocols. COVID-19 protective measures were introduced at personal (use of PPE), collective (disinfectant gel, dividers, maintaining social distancing), and organisational levels (introduction of telework, work schedule reorganisation, tasks and workplaces reassignment) (Ministerio de Sanidad 2021).

From an organisational psychology perspective, studies using the Job Demands–Resources model have considered how COVID-19 protective measures are workplace resources that mitigate the relationship between perceived infection risk (a job demand) and psychological distress or burnout. These studies also consider the impact of communication systems and participatory decision-making (Eguchi et al 2021; Falco et al 2021). Occupational health and safety research has yielded mixed results. Some studies found a positive correlation between the number of preventive measures and increased fear of infection, suggesting that such measures heighten risk awareness (Sasaki et al 2020). Others report protective effects on fear and distress (Asaoka et al 2022; Chaudhry et al 2023). There is little research on the specific effectiveness of different COVID-19 protective measures in reducing fear. Although some evidence suggests that personal protective measures are most effective (Asaoka et al 2022), other points to collective and organisational measures (Chaudhry et al 2023) so further exploration is needed to address this gap.

The role of worker representatives' participation in implementing COVID-19 preventive measures

The positive impact of worker participation on occupational health and safety is well-established (Graham and Walters 2021; Gunningham 2008; Walters and Nichols 2007). This participation can be direct, involving employees in decision-making about their work and safety through team meetings or quality circles. It can also be indirect, via formal structures of representation often channelled or backed by trade unions, such as health and safety representatives or health and safety committees (García-Miguélez 2009; Menéndez et al 2009). Although studies have shown the benefits of direct worker participation in areas such as ergonomics (Rivilis et al 2008), improved psychosocial health (Llorens-Serrano et al 2022), and reduced absenteeism (Payá Castiblanque 2020a), this research focuses on indirect participation, collective, and representative. The present study adopts a critical perspective on labour relations, which holds that workers' participation 'cannot be separated from the problems of power, authority, legitimacy, and control; it is inevitable that it involves a political aspect' (Boix and Vogel 2013, 151). Within the framework of industrial democracy, participation should be understood as an extension of workers' power and control in decision-making, allowing them to influence the technical-productive behaviour of the company. This vision stands in contrast to the economistic approach, where 'cosmetic' participation predominates, based on the manipulation of workers' motivations to align them with corporate objectives (Martín 1995, 371).

Literature examining the various repercussions of worker representatives' actions in relation to workplace matters – including occupational health – often refers to the 'union effect'. Historically, the presence of worker representatives has been shown to improve

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preventive management standards (risk assessment and prevention action planning) in different institutional contexts (Coutrot 2009; Jirjahn et al 2022; Ollé-Espluga et al 2015; Payá Castiblanque 2023; Walters et al 2005; Yassi et al 2013). During the pandemic context, the presence and intervention of worker representatives has been associated with the implementation of COVID-19 protective measures, either personal (provision of disinfectant gel, gloves, masks, and uniforms) (Dean et al 2020; Moore et al 2021; Ollé-Espluga et al 2024), collective (ventilation systems) (Crowell et al 2021), and organisational, to ensure physical distancing (introducing telework, changing shifts or working days) (Moore et al 2021; Ollé-Espluga et al 2024).

Classic studies on industrial safety and hygiene emphasise that worker representatives play a key role not only in improving preventive management standards but also in reducing health damage from injuries and accidents (Shannon et al 1997). The effectiveness of worker representation systems depends on the level of participation by elected representatives. Workplaces where representatives actively negotiate preventive measures (active participation) achieve greater health damage reduction than those where representatives are merely informed or consulted (passive participation) (Nichols et al 2007; Payá Castiblanque 2020b; Robinson and Smallman 2013). Thus, the mere presence of worker representatives does not guarantee improvements in safety and health standards; their active involvement in designing and implementing preventive measures is crucial. However, participation levels are unequal, conditioned by factors such as workplace size, the economic sector of the company or its financial situation (Menéndez et al 2009; Walters and Wadsworth 2014). The increasing precariousness of employment and deterioration of working conditions in Western economies in recent decades have restricted, if not prevented, access to the protection offered by representatives for a growing number of workers. From a sociodemographic perspective, employment precariousness particularly affects certain groups, such as women, young people, migrants, and those in low-skilled manual jobs (Matilla-Santander et al 2021; van Barneveld et al 2020). In terms of business characteristics, companies in the private and primary sectors concentrate the highest indicators of low job quality (Murtin et al 2022).

As with classic studies linking active worker representative participation to reduced accidents and occupational illnesses, the pandemic revealed a similar relationship: workplaces with active participation by worker representatives showed lower COVID-19 positivity rates (Crowell et al 2021) and mortality rates (Dean et al 2020). However, these studies primarily focused on the physical effects (positivity and mortality) of COVID-19, neglecting the potential role that worker representatives may play in mental health, particularly in reducing fear of contracting or transmitting COVID-19. In the present study, this gap is addressed by exploring the relationship between the presence and active participation of worker representatives in the design and implementation of protective measures and workers' levels of concern about contracting or transmitting COVID-19. Therefore, this research contributes to the literature by expanding the evidence and offering new empirical insights into the relationship between worker representation and psychological concerns during the pandemic. It also broadens the analytical scope by shifting the focus from traditional physical outcomes to psychosocial consequences. Furthermore, it sheds light on inequalities in workers' access to protective and representative mechanisms across different segments of the labour market.

To do so, the research question guiding this study is: Is active participation by worker representatives in COVID-19 prevention management associated with lower levels of concern about COVID-19 contraction or transmission in the workplace? To address this question, the study examines the relationship between such participation – particularly in the negotiation and implementation of protective measures, whether organisational, collective, or personal – and the level of concern expressed by workers regarding the risk of contagion or transmission in their work environment.

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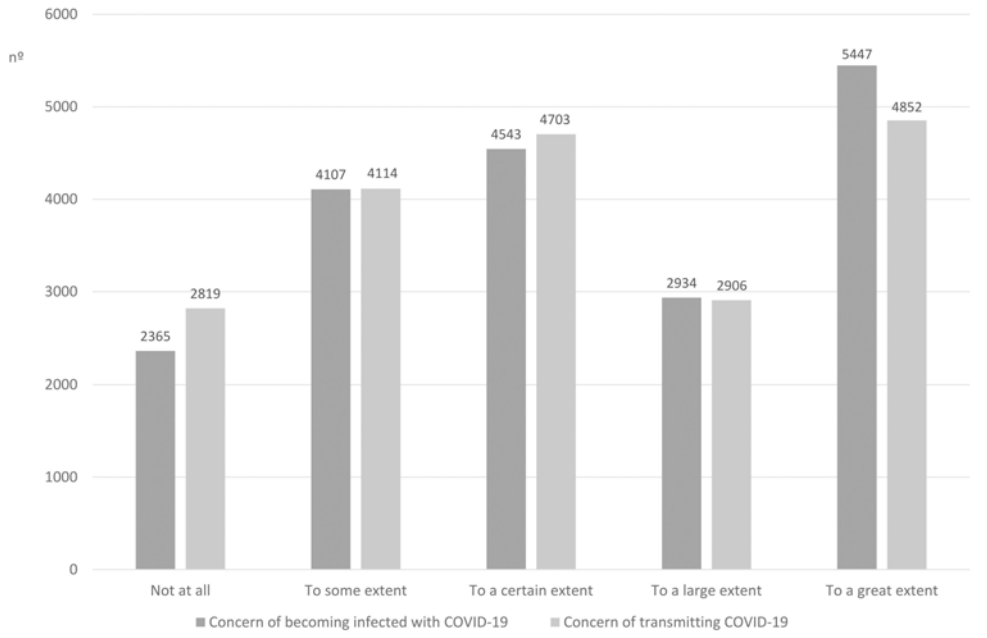


Figure 1. Levels of concern about contracting or transmitting COVID-19.

Materials and methods

Study design, data source, and sample

This is a cross-sectional study using microdata from the second wave of the online survey 'Working Conditions and Health in the Context of COVID-19 in Spain' (hereafter referred to as COTS2) (Llorens-Serrano et al 2021), conducted between April 26 and May 24, 2021. It was distributed among members of *Comisiones Obreras* (CCOO), Spain's largest labour union. As of 2023, CCOO represents 1,087,714 members and includes 104,200 elected representatives (35% of the national total) (CCOO 2024).

The target population for the COTS2 survey was workers residing in Spain who were employed when the state of alarm was declared (14 March 2020). For this study, we selected those workers who were salaried employees at the time the survey was administered, including those affected by a reduction-time. The final sample consisted of 19,452 salaried employees, 52.9% of whom were women.

Dependent variables

The two questions related to fear of contracting or transmitting COVID-19 included in the COTS2 questionnaire were:

> Are you concerned about the possibility of becoming infected with COVID-19 at work?
> Are you concerned about the possibility of transmitting COVID-19 to someone else?

In both cases, a Likert scale with five response options was used, ranging from 'not at all' to 'to a great extent' (see Figure 1). Responses were dichotomised by considering those workers who answered 'to a large extent' or 'to a great extent' as concerned.

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Independent variables

A synthetic indicator on the degree of participatory implementation of COVID-19 protective measures was used as the independent variable (Table 1 summarises this indicator and the variables from which it is derived).

Sociodemographic and occupational covariates

The following sociodemographic and occupational covariates were selected to adjust the analyses:

age (16–34 years, 35–49 years, 50 or older)
gender identity (woman, man, non-binary)
nationality (Spanish, non-Spanish)
occupational social class (manual, non-manual)
type of contract (permanent, temporary, no contract)
company ownership (public sector, private sector)
economic activity, adapted using the codes from the Statistical Classification of Economic Activities in the European Community (NACE Rev. 2). It includes: Primary (Agriculture, livestock, forestry and fishing); Industry; Education; Health activities; Care; Social Work; Construction; Wholesale and retail trade; Transportation and storage; Hospitality (Catering; Hotels and restaurants); Financial, insurance and real estate activities; Administrative and related services; Information and communications; Professional, scientific and technical activities; Sanitation, waste management and remediation activities; Cleaning of buildings and premises; Private security; Others.

Selection of covariates was based on a dual vulnerability criterion: exposure to COVID-19 (Williams 2020) and the probability of having worker representatives in the workplace (Matilla-Santander et al 2021; Menéndez et al 2009; Murtin et al 2022; Ollé-Espluga et al 2024; Walters and Wadsworth 2014). In this regard, the literature extensively documents that workers in precarious or atypical employment arrangements, such as the self-employed and digital platform workers, faced high levels of exposure, low levels of protection (including the need to resort to individual self-protection strategies), and limited institutional support. This was also true for those in specific occupational groups, including seafarers and transport workers, highlighting a situation of marked structural vulnerability. (Devereux and Wadsworth 2022; Qureshi et al 2024; Ruiz et al 2022). In addition, young people experienced poorer mental health during COVID-19, largely due to their lower resilience and less effective coping strategies compared with adults (Na et al 2022). The persistence of gender inequalities in the distribution of domestic and care work had significant effects on emotional exhaustion (Bartolj et al 2022). Of the key determinants of the worker representatives' presence, size of the company/workplace is the only variable not available in the COTS2 database.

Expected relationships and hypotheses

To empirically capture the relationships identified in the research question, the study distinguishes five analytical categories (CAT1–CAT5). These categories combine the implementation of COVID-19 protective measures with the presence and degree of participation of workers' representatives, as detailed in Table 1. Based on the literature reviewed in the theoretical framework of this study (Nichols et al 2007; Payá Castiblanque 2020b; Robinson and Smallman 2013), a hierarchical ordering of these categories is

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Table 1. Definition of the independent variable

Variable	Definition/categorisation
Degree of participatory implementation of COVID-19 protective measures	Synthetic variable combining information referred to the existence of worker representatives, the implementation of COVID-19 protective measure, and the active participation of the representatives in the negotiation of the measure. Response categories for this variable – inspired by Robinson and Smallman (2013) – were as follows: • CAT1: No implementation of the protective measure plus no worker representatives in the workplace or presence unknown. • CAT2: No implementation of the protective measure, but with presence of worker representatives. • CAT3: Implementation of the protective measure, but no presence of worker representatives or presence unknown. • CAT4: Implementation of the protective measure plus presence of worker representatives, but they did not participate, or their involvement in negotiating the protective measure is unknown. • CAT5: Implementation of the protective measure plus presence of worker representatives, and they actively participated in negotiating the measure's implementation. Specifically, this variable was calculated using: **Existence of worker representation** Response to the question 'In the company where you work as a salaried employee, are there workers' representatives?'. Dichotomised: 1 = Yes; 0 = No or Don't know. **COVID-19 protection measures** *Organisational measures:* Structural or logistical decisions measures that modify work organisation or work dynamics to reduce exposure to the virus. Questions included in this group: 1. Introduce teleworking. 2. Introduce shift work. 3. Change from split to continuous shift. 4. Change start and finish times. 5. Shorten working hours. 6. Move workers to other workplaces. 7. Change tasks. *Collective protection measures:* Measures aiming at prevention at the group level that act on the physical work environment. Questions included in this group: 8. Provide dividers. 9. Organise workstations to maintain a distance of 1.5 m. 10. Provide disinfectant gel. *Personal protection measures* : Measures that require the individual intervention of each worker through the use of Personal Protective **Negotiation level of COVID-19 protection measures** In the event of an affirmative answer regarding the implementation of any of the 13 protective measures against COVID-19, response to the question 'Were any of these measures negotiated with worker representatives?'. Dichotomised: 1 = Yes; 0 = No or Don't know.

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Table 1. (*Continued*)

Variable	Definition/categorisation
	Equipment (PPE). Questions included in this group: 11. Provide gloves. 12. Provide masks. 13. Provide uniforms/special suits. For each of the measures, responses were dichotomised: 1 = Yes; 0 = No Grouping was done inspired by the classification provided by Spanish Ministry of Health at the time of the survey (Ministerio de Sanidad, 2021).

assumed. Compared to CAT1, workers' levels of concern are expected to progressively decrease as workplaces move from the non-application or non-participatory implementation of protective measures (CAT2–CAT4) to scenarios characterised by the active participation of workers' representatives (CAT5). This active participation is expected to enhance the effectiveness of protective measures by increasing their suitability to specific working conditions, boosting confidence in preventive management, and reinforcing workers' perceptions of control and voice (Eguchi et al 2021; Falco et al 2021). These factors shape both the objective quality of prevention and workers' subjective risk perceptions.

Considering the research question and previous literature, this study formulates the following hypotheses: (a) Lower concern about contracting or transmitting COVID-19 is reported among workers in workplaces with protective measures (CAT2–CAT5) than among workers in workplaces without protective measures (CAT1); (b) Protective measures against COVID-19 are more likely to be implemented in workplaces with worker representation (CAT2, CAT4, and CAT5) than in workplaces without representation (CAT1 and CAT3); (c) Workers' concern about contracting or transmitting COVID-19 is reduced when protective measures are negotiated and implemented with the active participation of worker representatives (CAT5) than when measures are implemented without their active participation (CAT3 and CAT4), reflecting the role of participatory processes in enhancing procedural legitimacy and contextual adaptation; and (d) Access to the most protective settings (particularly CAT5) is uneven across different occupational and sociodemographic groups. Consequently, higher levels of concern are expected to cluster among workers with the greatest infection risk and the least access to participatory forms of worker representation.

Statistical analyses

First, univariate analyses were performed to describe the dependent variables. Then, a bivariate analysis was performed to explore the associations between concern of contracting or transmitting COVID-19 and the sociodemographic and occupational covariates (see Table 2). This bivariate analysis was replicated for the presence or absence

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Table 2. Concern about contracting and transmitting COVID-19 according to sociodemographic and occupational characteristics

		Concern about contracting COVID-19			Concern about transmitting COVID-19		
	TOTAL *n°* *(% of total)*	NO-concern *n°* *(%)*	YES-concern *n°* *(%)*	Sig.[a]	NO-concern *n°* *(%)*	YES-concern *n°* *(%)*	Sig.[a]
Gender identity	–	–	–	0.371	–	–	<0.001
Woman	10,172 (52.9)	5751 (56.5)	4421 (23.0)	–	6222 (61.1)	3953 (38.9)	–
Man	9060 (47.0)	5172 (57.1)	3888 (42.9)	–	5321 (58.8)	**3735 (41.2)**	–
Non-binary	28 (0.1)	19 (67.9)	9 (32.1)	–	22 (78.6)	6 (21.4)	–
Age				<0.001			<0.001
16–34	1742 (9.1)	931 (53.4)	**811 (46.6)**	–	1029 (59.0)	715 (41.0)	–
35–49	8685 (45.2)	4763 (54.8)	3922 (45.2)	–	4977 (57.3)	**3707 (42.7)**	–
50 or more	8803 (45.8)	5229 (59.4)	3574 (40.6)	–	5530 (62.8)	3270 (37.2)	–
Nationality				0.146			0.285
Spanish	18,278 (98.5)	10,401 (56.9)	7877 (43.1)	–	10980 (60.1)	7293 (39.9)	–
Non-Spanish	286 (1.5)	175 (61.2)	111 (38.8)	–	182 (63.2)	106 (36.8)	–
Contract type				0.549			0.792
Permanent	15,998 (82.5)	9093 (56.8)	6905 (43.2)	–	9615 (60.1)	6382 (39.9)	–
Temporary	3390 (17.5)	1916 (56.5)	1474 (43.5)	–	2016 (59.5)	1373 (40.5)	–
No contract	8 (0.04)	6 (75.0)	2 (2.0)	–	5 (62.5)	3 (37.5)	–
Company ownership				<0.001			<0.001
Private sector	11,746 (60.8)	6451 (54.9)	**5295 (45.1)**	–	6896 (58.7)	**4852 (41.3)**	–
Public sector	7582 (39.2)	4526 (59.7)	3056 (40.3)	–	4698 (62.0)	2880 (38.0)	–
Occupational social class				<0.001			<0.001
Manual	7203 (37.3)	3727 (51.7)	**3476 (48.3)**	–	4060 (56.4)	**3139 (43.6)**	–
Non-manual	11,934 (62.4)	7150 (59.9)	4784 (40.1)	–	7423 (62.2)	4513 (37.8)	–
Economic activity				<0.001			<0.001

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Table 2. (*Continued*)

		Concern about contracting COVID-19			Concern about transmitting COVID-19		
	TOTAL *n°* *(% of total)*	NO-concern *n°* *(%)*	YES-concern *n°* *(%)*	Sig.[a]	NO-concern *n°* *(%)*	YES-concern *n°* *(%)*	Sig.[a]
Primary (agriculture, livestock, forestry, and fishing)	232 (1.2)	135 (58.2)	97 (41.8)	–	125 (54.3)	**105 (45.7)**	–
Industry	2222 (11.6)	1318 (59.3)	904 (40.7)	–	1323 (59.5)	901 (40.5)	–
Education	2449 (12.8)	1470 (60.0)	979 (40.0)	–	1563 (63.8)	886 (36.2)	–
Health activities	1998 (10.5)	1129 (56.5)	869 (43.5)	–	1182 (59.2)	815 (40.8)	–
Care	1208 (6.3)	727 (60.2)	481 (39.8)	–	749 (62.0)	459 (38.0)	–
Social work	201 (1.1)	128 (63.7)	73 (36.3)	–	121 (60.2)	80 (39.8)	–
Construction	359 (1.9)	209 (58.2)	150 (41.8)	–	212 (59.2)	146 (40.8)	–
Wholesale and retail trade	1108 (5.8)	472 (42.6)	**636 (57.4)**	–	590 (53.3)	**516 (46.7)**	–
Transportation and storage	731 (3.8)	408 (55.8)	323 (44.2)	–	418 (57.3)	312 (42.7)	–
Hospitality (catering; hotels and restaurants)	569 (3.0)	298 (52.4)	**271 (47.6)**	–	342 (60.0)	228 (40.0)	–
Financial, insurance, and real estate activities	943 (4.9)	489 (51.9)	**454 (48.1)**	–	543 (57.6)	400 (42.4)	–
Administrative and related services	1059 (5.5)	651 (61.5)	408 (38.5)	–	681 (64.4)	377 (35.6)	–
Information and communications	722 (3.8)	419 (58.0)	303 (42.0)	–	446 (62.0)	273 (38.0)	–
Professional, scientific, and technical activities	680 (3.6)	451 (66.3)	229 (33.7)	–	445 (65.4)	235 (34.6)	–
Sanitation, waste management, and remediation activities	113 (0.6)	64 (56.6)	49 (43.4)	–	64 (56.6)	49 (43.4)	–
Cleaning of buildings and premises	436 (2.3)	220 (50.5)	**216 (49.5)**	–	262 (60.1)	174 (39.9)	–
Private security	340 (1.8)	156 (45.9)	**184 (54.1)**	–	176 (51.8)	**164 (48.2)**	–
Others	3737 (19.6)	2101 (56.2)	1936 (43.8)	–	2218 (59.3)	1523 (40.7)	–

[a] *p*-Value determined by chi-square test.
Bold values indicate the highest percentages within each category for concern about contracting and transmitting COVID-19.

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Table 3. Presence of worker representatives in the workplace according to concern about contracting and transmitting COVID-19 and sociodemographic and occupational characteristics

	Worker representatives		
	No – representatives *n°* *(%)*	Yes – representatives *n°* *(%)*	Sig.[a]
Concern about contracting COVID-19 (Yes)	**1703 (46.6)**	6644 (42.4)	<0.001
Concern about transmitting COVID-19 (Yes)	**1547 (42.3)**	6178 (39.5)	0.002
Gender identity			<0.001
Woman	**2093 (20.6)**	8062 (79.4)	–
Man	1550 (17.1)	**7508 (82.9)**	–
Non-binary	3 (10.7)	**25 (89.3)**	–
Age			<0.001
16–34	**644 (37.0)**	1098 (63)	–
35–49	1798 (20.7)	**6877 (79.3)**	–
50 or more	1200 (13.6)	**7597 (86.4)**	–
Nationality			<0.001
Spanish	3379 (18.5)	**14882 (81.5)**	–
Non-Spanish	**121 (42.0)**	167 (58.0)	–
Contract type			<0.001
Permanent	2776 (17.4)	**13206 (82.6)**	–
Temporary	**885 (26.1)**	2500 (73.9)	–
No contract	**8 (100)**	0 (0)	–
Company ownership			<0.001
Private sector	**2965 (25.3)**	8774 (74.7)	–
Public sector	696 (9.2)	**6872 (90.8)**	–
Occupational social class			<0.001
Manual	**1595 (22.2)**	5597 (77.8)	–
Non-manual	2030 (17.0)	**9895 (83.0)**	–

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Table 3. (*Continued*)

	Worker representatives		
	No – representatives *n*° *(%)*	Yes – representatives *n*° *(%)*	Sig.[a]
Economic activity			
Primary (agriculture, livestock, forestry, and fishing)	**56 (24.1)**	176 (75.9)	–
Industry	373 (16.8)	**1850 (83.2)**	–
Education	**511 (20.9)**	1935 (79.1)	–
Health activities	233 (11.7)	**1763 (88.3)**	–
Care	154 (12.8)	**1050 (87.2)**	–
Social work	**45 (22.4)**	156 (77.6)	–
Construction	**169 (47.1)**	190 (52.9)	–
Wholesale and retail trade	**362 (32.8)**	742 (67.2)	–
Transportation and storage	128 (17.6)	**601 (82.4)**	–
Hospitality (catering; hotels and restaurants)	**240 (41.8)**	334 (58.2)	–
Financial, insurance, and real estate activities	71 (7.5)	870 (92.5)	–
Administrative and related services	176 (16.6)	**884 (83.4)**	–
Information and communications	119 (16.6)	**598 (83.4)**	–
Professional, scientific, and technical activities	132 (19.4)	550 (80.6)	–
Sanitation, waste management, and remediation activities	12 (10.7)	100 (89.3)	–
Cleaning of buildings and premises	**142 (32.6)**	293 (67.5)	–
Private security	58 (17.1)	**282 (82.9)**	–
Others	651 (17.4)	**3082 (82.6)**	–

[a] *p*-Value determined by chi-square test.
Bold values indicate the highest percentages within each category for concern about contracting and transmitting COVID-19.

of workers' representatives in the workplaces (see Table 3) and the implementation of the 13 protection measures against COVID-19 (see Table 4). Chi-square test was used to calculate *p*-values. The type I error was set at $\alpha = 0.05$.

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Table 4. Implementation of protective measures according to the presence of workers' representatives in the workplace, concern about contracting and transmitting COVID-19, and sociodemographic and occupational characteristics

	Introduce teleworking %	Introduce shift work %	Change from split to continuous shift %	Change start and finish times %	Shorten working hours %	Move workers to other workplaces %	Change tasks %	Provide dividers %	Organise workstations to maintain a distance of 1.5 m %	Provide disinfectant gel %	Provide gloves %	Provide masks %	Provide uniforms/ special suits %
Worker representatives[a]	<0.001	<0.001	0.044	<0.001	0.391	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Yes	**39.5**	**10.9**	**4.8**	**15.7**	2.8	**2.3**	**3.3**	**34.0**	**44.7**	**87.2**	**45.7**	**85.4**	**14.8**
No	21.3	6.4	4.0	9.6	3.1	0.9	2.3	20.7	31.8	82.9	37.8	72.3	8.4
Concern about contracting COVID-19[a]	<0.001	<0.001	<0.001	<0.001	<0.001	0.428	0.003	<0.001	<0.001	<0.001	0.002	<0.001	0.005
Yes	30.3	8.3	3.9	12.8	2.4	2.0	2.7	28.3	36.1	85.2	45.1	81.4	12.9
No	**40.6**	**11.4**	**5.3**	**15.9**	**3.2**	2.2	**3.5**	**34.1**	**47.1**	**87.4**	**45.3**	**84.4**	14.3
Concern about transmitting COVID-19[a]	<0.001	<0.001	0.119	0.134	0.441	0.210	0.060	<0.001	<0.001	0.006	0.266	0.121	0.856
Yes	32.8	9.1	4.4	14.1	2.8	1.9	2.8	28.9	38.4	85.6	44.0	82.6	13.7
No	**38.5**	**10.7**	4.9	14.9	2.9	2.2	3.3	**33.5**	**44.9**	**87.0**	44.8	83.5	13.6
Gender identity[a]	<0.001	<0.001	<0.001	<0.001	0.002	0.177	0.148	<0.001	<0.001	0.211	0.093	<0.001	<0.001
Woman	32.1	8.4	3.7	11.7	2.5	1.9	3.3	30.0	40.0	86.4	44.9	81.2	**17.0**
Man	**40.9**	**12.0**	**5.9**	**17.2**	**3.3**	2.3	2.8	**33.5**	**45.1**	86.4	43.6	**85.3**	9.8
Nonbinary	32.1	10.7	**7.1**	**25.0**	**7.1**	3.6	3.6	28.6	35.7	75.0	32.1	67.9	14.3
Age[a]	<0.001	<0.001	0.260	<0.001	0.683	0.048	0.588	<0.001	<0.001	0.562	<0.001	<0.001	<0.001
16 to 34	25.1	7.3	5.2	13.7	3.0	1.8	3.2	26.9	33.5	85.7	41.7	78.7	12.0

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Table 4. (*Continued*)

	Introduce teleworking %	Introduce shift work %	Change from split to continuous shift %	Change start and finish times %	Shorten working hours %	Move workers to other workplaces %	Change tasks %	Provide dividers %	Organise workstations to maintain a distance of 1.5 m %	Provide disinfectant gel %	Provide gloves %	Provide masks %	Provide uniforms/ special suits %
35 to 49	**35.5**	**9.7**	4.9	**15.7**	2.8	**2.2**	3.0	**30.4**	**41.6**	86.4	**43.0**	**82.1**	12.7
50 or more	**39.3**	**11.0**	4.5	**13.8**	3.0	**2.0**	3.2	**33.8**	**44.9**	86.7	**46.0**	**85.0**	14.9
Nationality[a]	0.056	0.154	0.876	0.488	0.399	0.802	0.386	0.126	0.157	0.005	0.326	<0.001	0.922
Spanish	36.5	10.2	4.7	14.7	2.9	2.1	3.2	31.8	42.7	**86.7**	44.4	**83.4**	13.7
Non-Spanish	30.8	7.5	4.5	13.2	3.8	1.9	2.3	27.4	38.3	80.8	41.4	75.2	13.9
Contract type[a]	<0.001	<0.001	<0.001	<0.001	0.266	0.024	0.001	<0.001	<0.001	0.134	0.020	0.010	<0.001
Permanent	**39.0**	**10.5**	**5.1**	**15.3**	3.0	**2.2**	2.9	**32.5**	**42.9**	86.2	43.9	82.8	12.1
Temporary	23.1	8	2.9	11.4	2.3	1.5	**4.2**	27.5	39.5	86.2	**46.2**	**84.4**	**21.1**
No contract	16.7	16.5	–	–	–	–	–	16.5	50.0	66.7	16.7	50.0	16.7
Company ownership[a]	0.755	0.015	<0.001	0.002	0.936	0.541	<0.001	<0.001	<0.001	<0.001	0.443	<0.001	<0.001
Private sector	36.1	9.6	**5.7**	**15.2**	**2.9**	2.1	2.2	29.2	39.2	83.6	44.1	**80.3**	94.0
Public sector	36.3	**10.7**	3.2	13.6	2.9	2.0	**4.5**	**35.2**	**47.1**	90.5	44.6	**87.2**	20.2
Occupational social class[a]	<0.001	<0.001	<0.001	0.115	0.157	0.043	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manual	13.8	6.1	3.5	15.2	2.6	1.8	**3.7**	25.4	26.1	85.0	**60.8**	**87.9**	19.8
Nonmanual	**49.4**	**12.4**	**5.4**	14.3	3.0	2.3	2.8	**35.2**	**51.9**	**87.2**	34.6	80.3	10.2
Economic activity[a]	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

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Table 4. (*Continued*)

	Introduce teleworking %	Introduce shift work %	Change from split to continuous shift %	Change start and finish times %	Shorten working hours %	Move workers to other workplaces %	Change tasks %	Provide dividers %	Organise workstations to maintain a distance of 1.5 m %	Provide disinfectant gel %	Provide gloves %	Provide masks %	Provide uniforms/ special suits %
Primary (agriculture, livestock, forestry, and fishing)	31.5	15.7	2.8	20.4	0.5	1.9	–	29.2	40.3	84.3	44.4	81.9	5.6
Industry	40.5	10.7	**10.9**	**31.6**	2.5	1.6	1.6	33.4	41.1	**89.0**	49	**89.6**	4.6
Education	33.1	8.1	4.1	19.6	3.3	0.8	4.8	25.8	51.3	**91.8**	25.3	79.3	7.2
Health activities	12.9	4.5	1.1	2.9	1.0	**2.7**	**6.9**	25.5	28.0	**90.7**	**74.4**	**91.9**	58.5
Care	23.5	5.8	1.4	6.6	1.5	**2.4**	**5.6**	28.6	32.3	**88.1**	**67.4**	**91.5**	40.6
Social work	22.7	6.1	2.5	10.1	2.5	1.0	**6.6**	29.3	32.8	**89.9**	**64.1**	**91.9**	38.4
Construction	20.0	7.9	11.1	14.6	1.6	1.0	0.6	29.5	38.1	85.7	40.3	84.4	5.4
Wholesale and retail trade	12.5	5.3	3.1	10.1	**3.7**	2.7	2.0	**43.4**	28.0	**92.0**	54.4	81.8	3.6
Transportation and storage	33.3	8.2	4.7	15.4	**3.5**	2.2	1.9	34.5	39.6	86.5	44.0	88.6	2.8
Hospitality (catering; hotels and restaurants)	5.7	5.9	3.1	10.0	**8.7**	1.8	**6.3**	22.5	23.2	86.5	51.3	82.3	8.9
Financial, insurance, and real estate activities	**59.4**	**17.8**	5.2	9.5	1.7	**4.7**	1.0	**51.1**	**58.6**	85.3	32.5	82.6	0.7
	59.4	**16.6**	4.7	11.1	**3.5**	**2.6**	1.3	**45.2**	**57.3**	85.0	24.4	75.1	3.4

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Table 4. (*Continued*)

	Introduce teleworking %	Introduce shift work %	Change from split to continuous shift %	Change start and finish times %	Shorten working hours %	Move workers to other workplaces %	Change tasks %	Provide dividers %	Organise workstations to maintain a distance of 1.5 m %	Provide disinfectant gel %	Provide gloves %	Provide masks %	Provide uniforms/ special suits %
Administrative and related services													
Information and communications	**75.5**	**17.3**	3.1	11.4	**3.0**	1.7	0.7	23.1	**55.6**	73.2	25.1	63.8	2.5
Professional, scientific, and technical activities	**68.7**	**15.5**	**6.9**	15.6	**3.9**	1.3	1.9	26.4	**57.1**	82.3	26.5	74.1	5.5
Sanitation, waste management, and remediation activities	24.3	13.5	**6.3**	**45**	**3.6**	**2.7**	2.7	19.8	29.7	87.4	**65.8**	**90.1**	21.6
Cleaning of buildings and premises	5.7	3.3	1.6	11.4	1.6	1.6	**6.8**	7.6	15.2	56.3	**66.3**	80.4	19.3
Private security	8.8	2.0	3.1	3.7	0.7	2	0.3	9.5	21.1	75.2	43.5	83.7	2.4
Others	46.6	11.8	4.7	14.9	3.4	2.2	1.9	34.9	48.0	84.8	38.6	81.4	6.3

[a] *p*-Value determined by chi-square test.
Bold values indicate the highest percentages within each category for concern about contracting and transmitting COVID-19.

Finally, a multivariate analysis (logistic regression models[1]) was employed to estimate the relationship between the degree of participatory implementation of COVID-19 protective measures and concern of COVID-19 contraction or transmission. Crude odds ratios (cOR) and adjusted odds ratios (aOR) accounting for the covariates were calculated for each dependent variable, with 95% confidence intervals. Absence of concern was established as the reference category for the dependent variables (see Tables 5 and 6). The independent variables were the synthetic indicators constructed for each of the 13 COVID-19 protective measures. We used CAT1 as reference category for these indicators (no implementation of the protective measure plus no worker representatives in the workplace or presence unknown). Participants not answering the question(s) were excluded from the calculation of each indicator. Individual and multivariate logistic regression models were performed using IBM SPSS Statistics software, version 28.

The study adhered to current legislation and received approval from the Ethics Committee of the university affiliated with the research group conducting the study (CEEAH-5470). All participants provided online informed consent before participating in the study.

Robustness check

To test the robustness of the analyses performed, complementary analyses were carried out. Given the lack of specificity of our dependent variables, the Spanish version of the Mental Health Inventory-5 (MHI-5) was used as an alternative dependent variable somehow related to fear (Vilagut et al 2005). This is a subscale included within a broader instrument known as SF-36 Health Questionnaire which assesses feelings of nervousness, anxiety, depression, and psychological well-being during the previous month. In analyses not shown, a chi-square test was first performed to examine whether the dependent variables measuring concern about contracting or transmitting COVID-19 were related to mental health. 52.2% of those who reported being concerned about contracting COVID-19 in the workplace were at high risk of poor mental health (MHI-5), compared to 29% of those who did not report such concern. These differences are statistically significant ($p < .001$). Results were similar for the dependent variables related to concern about transmitting COVID-19. Then, the Mental Health Inventory-5 was used as a dependent variable in a regression analysis (see Table 1 in the Appendix), obtaining homogeneous results that reinforce the validity of the dependent variables used in the present study.

Despite regressions being performed adjusting for sociodemographic and occupational covariates, stratified analyses were also carried out according to occupational social class, type of contract, and a proxy of essential workers[2] (see Tables 3, 4, and 5 in the Appendix, respectively). This was done to consider the identified double vulnerability factor and reinforce the robustness of the overall results.

Results

Descriptive analysis

Concern about contracting the virus was slightly higher (8381 individuals, 43.2% of the sample) than about transmission (7758 individuals, 40%) (Figure 1). The distribution of concern across different socio-demographic and occupational groups (see Table 2) shows that younger individuals (46.6%), manual workers (48.3%), and those working in private companies (45.1%) report higher levels of concern about contracting COVID-19. This is particularly evident in sectors characterised by high exposure and less protection, such as retail and wholesale trade (57.4%), building cleaning (49.5%), and private security (54.1%). A similarly elevated level of concern about transmitting COVID-19 was observed among

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Table 5. Concern about contracting COVID-19 according to the degree of participatory implementation of protective measures

	TOTAL *n° (% of total)*	Concern about contracting COVID-19		cOR (95% CI)[a]	aOR (95% CI)[b]
		NO-concern *n° (%)*	YES-concern *n° (%)*		
Organisational protective measures					
Introduce teleworking					
CAT1	2609 (14.0)	1364 (52.3)	1245 (47.7)	1[c]	1[c]
CAT2	9311 (49.8)	5014 (53.9)	4297 (46.1)	0.94 (0.86–1.02)	0.99 (0.90–1.09)
CAT3	703 (3.8)	462 (65.7)	241 (34.3)	**0.57 (0.48–0.68)[d]**	**0.60 (0.50–0.72)[d]**
CAT4	3225 (17.2)	2022 (62.7)	1203 (37.3)	**0.65 (0.59–0.72)[d]**	**0.72 (0.64–0.80)[d]**
CAT5	2849 (15.2)	1877 (65.9)	972 (34.1)	**0.57 (0.51–0.63)[d]**	**0.63 (0.53–0.71)[d]**
Introduce shift work					
CAT1	3099 (16.6)	1686 (54.4)	1413 (45.6)	1[c]	1[c]
CAT2	13712 (73.3)	7829 (57.1)	5883 (42.9)	**0.9 (0.83–0.97)[e]**	0.96 (0.89–1.05)
CAT3	213 (1.1)	140 (65.7)	73 (34.3)	**0.62 (0.47–0.83)[d]**	**0.68 (0.50–0.91)[e]**
CAT4	951 (5.1)	599 (63.0)	352 (37.0)	**0.71 (0.60–0.81)[d]**	**0.79 (0.67–0.92)[e]**
CAT5	722 (3.9)	485 (67.2)	237 (32.8)	**0.58 (0.49–0.69)[d]**	**0.67 (0.56–0.80)[d]**
Change from split to continuous shift					
CAT1	3178 (17.0)	1742 (54.8)	1436 (45.2)	1[c]	1[c]
CAT2	14639 (78.3)	8429 (57.6)	6210 (42.4)	**0.89 (0.83–0.96)[e]**	0.96 (0.89–1.05)
CAT3	134 (0.7)	84 (62.7)	50 (37.3)	0.72 (0.51–1.03)	0.72 (0.49–1.04)
CAT4	391 (2.1)	246 (62.9)	145 (37.1)	**0.72 (0.58–0.89)[e]**	**0.77 (0.61–0.96)[e]**
CAT5	355 (1.9)	238 (67.0)	117 (33.0)	**0.60 (0.47–0.75)[d]**	**0.67 (0.53–0.86)[e]**
Change start and finish times					
CAT1	2992 (16.0)	1643 (54.9)	1349 (45.1)	1[c]	1[c]
CAT2	12970 (69.4)	7381 (56.9)	5589 (43.1)	0.92 (0.85–1.00)	1.01 (0.93–1.10)
CAT3	320 (1.7)	183 (57.2)	137 (42.8)	0.91 (0.72–1.15)	1.04 (0.82–1.33)
CAT4	1193 (6.4)	732 (61.4)	461 (38.6)	**0.77 (0.67–0.88)[d]**	**0.86 (0.74–0.99)[e]**
CAT5	1222 (6.5)	800 (65.5)	422 (34.5)	**0.64 (0.56–0.74)[d]**	**0.68 (0.59–0.79)[d]**
Shorten working hours					
CAT1	3210 (17.2)	1771 (55.2)	1439 (44.8)	1[c]	1[c]
CAT2	14949 (80.0)	8619 (57.7)	6330 (42.3)	**0.90 (0.84–0.98)[e]**	0.97 (0.89–1.06)
CAT3	102 (0.5)	55 (53.9)	47 (46.1)	1.05 (0.71–1.56)	0.94 (0.62–1.41)
CAT4	224 (1.2)	153 (68.3)	71 (31.7)	**0.57 (0.43–0.76)[d]**	**0.64 (0.47–0.87)[e]**
CAT5	212 (1.1)	141 (66.5)	71 (33.5)	**0.62 (0.46–0.83)[e]**	**0.69 (0.51–0.94)[e]**
Move workers to other workplaces					
CAT1	3282 (17.6)	1809 (55.1)	1473 (44.9)	1[c]	1[c]
CAT2	15023 (80.3)	8698 (57.9)	6325 (42.1)	**0.89 (0.83–0.96)[e]**	0.97 (0.89–1.05)

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Table 5. (*Continued*)

	TOTAL *n° (% of total)*	Concern about contracting COVID-19		cOR (95% CI)[a]	aOR (95% CI)[b]
		NO-concern *n° (%)*	YES-concern *n° (%)*		
CAT3	30 (0.2)	17 (56.7)	13 (43.3)	0.94 (0.46–1.94)	0.99 (0.47–2.08)
CAT4	225 (1.2)	126 (56.0)	99 (44.0)	0.97 (0.74–1.27)	1.03 (0.77–1.37)
CAT5	137 (0.7)	89 (65.0)	48 (35.0)	**0.66 (0.46–0.95)**[e]	**0.63 (0.43–0.95)**[e]
Change tasks					
CAT1	3236 (17.3)	1777 (54.9)	1459 (45.1)	1[c]	1[c]
CAT2	14875 (79.6)	8590 (57.7)	6285 (42.3)	**0.89 (0.83–0.96)**[e]	0.96 (0.88–1.04)
CAT3	76 (0.4)	49 (64.5)	27 (35.5)	0.67 (0.42–1.08)	0.66 (0.40–1.08)
CAT4	335 (1.8)	206 (61.5)	129 (38.5)	**0.76 (0.61–0.96)**[e]	0.82 (0.64–1.04)
CAT5	175 (0.9)	117 (69.9)	58 (33.1)	**0.60 (0.44–0.83)**[e]	**0.64 (0.46–0.90)**[e]
Collective protective measures					
Provide dividers					
CAT1	2626 (14.0)	1441 (54.9)	1185 (45.1)	1[c]	1[c]
CAT2	10148 (54.3)	5628 (55.5)	4520 (44.5)	0.98 (0.90–1.07)	1.03 (0.94–1.13)
CAT3	686 (3.7)	385 (56.1)	301 (43.9)	0.95 (0.80–1.13)	0.93 (0.78–1.11)
CAT4	3033 (16.2)	1877 (61.9)	1156 (38.1)	**0.75 (0.67–0.83)**[d]	**0.82 (0.73–0.91)**[d]
CAT5	2204 (11.8)	1408 (63.9)	796 (36.1)	**0.69 (0.61–0.77)**[d]	**0.75 (0.66–0.85)**[d]
Organise workstations to maintain a distance of 1.5 m					
CAT1	2259 (12.1)	1177 (52.1)	1082 (47.9)	1[c]	1[c]
CAT2	8508 (45.5)	4504 (52.9)	4004 (47.1)	0.97 (0.88–1.06)	1.03 (0.93–1.14)
CAT3	1053 (5.6)	649 (61.6)	404 (38.4)	**0.68 (0.58–0.79)**[d]	**0.71 (0.61–0.83)**[d]
CAT4	3926 (21.0)	2479 (63.1)	1447 (36.9)	**0.64 (0.57–0.71)**[d]	**0.70 (0.63–0.79)**[d]
CAT5	2951 (15.8)	1930 (65.4)	1021 (34.6)	**0.58 (0.51–0.64)**[d]	**0.64 (0.56–0.72)**[d]
Provide disinfectant gel					
CAT1	566 (3.0)	317 (56.0)	249 (44.0)	1[c]	1[c]
CAT2	1959 (10.5)	1037 (52.9)	922 (47.1)	1.13 (0.94–1.37)	1.20 (0.99–1.47)
CAT3	2746 (14.7)	1509 (55.0)	1237 (45.0)	1.04 (0.87–1.25)	1.05 (0.87–1.27)
CAT4	8357 (44.7)	4845 (58.0)	3512 (42.0)	0.92 (0.78–1.10)	1.00 (0.83–1.20)
CAT5	5069 (27.1)	3031 (59.8)	2038 (40.2)	0.86 (0.72–1.02)	0.93 (0.77–1.12)
Personal protective measures					
Provide gloves					
CAT1	2056 (11.0)	1108 (53.9)	948 (46.1)	1[c]	1[c]
CAT2	8342 (44.6)	4761 (57.1)	3581 (42.9)	**0.88 (0.80–0.97)**[e]	0.95 (0.86–1.06)
CAT3	1256 (6.7)	718 (57.2)	538 (42.8)	0.88 (0.76–1.10)	**0.79 (0.68–0.92)**[e]
CAT4	4253 (22.7)	2489 (58.5)	1764 (41.5)	**0.83 (0.75–0.92)**[d]	**0.81 (0.73–0.91)**[d]
CAT5	2790 (14.9)	1663 (59.6)	1127 (40.4)	**0.79 (0.71–0.89)**[d]	**0.78 (0.69–0.91)**[d]

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Table 5. (*Continued*)

	TOTAL *n° (% of total)*	Concern about contracting COVID-19		cOR (95% CI)[a]	aOR (95% CI)[b]
		NO-concern *n° (%)*	YES-concern *n° (%)*		
Provide masks					
CAT1	916 (4.9)	471 (51.4)	445 (48.6)	1[c]	1[c]
CAT2	2229 (11.9)	1209 (54.2)	1020 (45.8)	0.89 (0.77–1.04)	1.01 (0.85–1.18)
CAT3	2396 (12.8)	1355 (56.6)	1041 (43.4)	**0.81 (0.70–0.95)[e]**	**0.82 (0.70–0.97)[e]**
CAT4	7559 (40.4)	4401 (58.2)	3158 (41.8)	**0.76 (0.66–0.87)[d]**	**0.83 (0.71–0.96)[e]**
CAT5	5597 (29.9)	3303 (59.0)	2294 (41.0)	**0.74 (0.64–0.85)[d]**	**0.78 (0.67–0.91)[e]**
Provide uniforms/ special suits					
CAT1	3034 (16.2)	1661 (54.7)	1373(45.3)	1[c]	1[c]
CAT2	13103 (70.1)	7542 (57.6)	5561 (42.4)	**0.89 (0.82–0.97)[e]**	0.96 (0.88–1.05)
CAT3	278 (1.5)	165 (59.4)	113 (40.6)	0.83 (0.64–1.06)	0.79 (0.61–1.02)
CAT4	1310 (7.0)	804 (61.4)	506 (38.6)	**0.76 (0.67–0.87)[d]**	**0.78 (0.68–0.91)[d]**
CAT5	972 (5.2)	567 (58.3)	405 (41.7)	**0.86 (0.75–0.99)[e]**	0.89 (0.76–1.04)

[a] cOR: crude odds ratio. 95% CI: 95% confidence interval. No concern of contracting COVID-19 was the reference category.
[b] aOR: adjusted odds ratio by gender identity (reference category: women); age (reference category: 16-34); nationality (Spanish); contract type (permanent); company ownership (private sector); occupational social class (manual); and economic activity (primary).
[c] For each of the 13 COVID-19 protective measures, an indicator with five differentiated occupational risk prevention categories (hereinafter CAT) was constructed, where CAT1 was the reference category in the regression analysis. Categories are defined as CAT1: No implementation of the protective measure plus no presence of worker representatives in the workplace or presence unknown; CAT2: No implementation of the protective measure, but with presence of worker representatives; CAT3: Implementation of the protective measure, but no presence of worker representatives or presence unknown; CAT4: Implementation of the protective measure plus presence worker representatives, but they did not participate, or their involvement in negotiating the protective measure is unknown; and CAT5: Implementation of the protective measure plus presence of worker representatives, and they actively participated in negotiating the measure's implementation.
[d] $p < 0.001$.
[e] $p < 0.05$.
Bold values indicate the highest percentages within each category for concern about contracting and transmitting COVID-19.

manual workers (43.6%) and in sectors such as the primary sector (45.7%), cleaning (39.9%), and hotel and catering (40%). No statistically significant differences were detected according to nationality or type of contract.

The role played by the presence or absence of worker representatives is the focus of Table 3. Compared to workers with representation, those without representatives expressed statistically significantly greater concern about both contracting COVID-19 (46.6% vs. 42.4%) and transmitting it (42.3% vs. 39.5%). The average representation in the sample as a whole is 80.7%, although there are inequalities in access to worker representatives. Groups with less access included young people (63%), those on temporary contracts (74%), immigrants (58%), and individuals employed in sectors such as hospitality (58.2%), wholesale and retail trade (67.2%), and cleaning (67.5%). The groups reporting the most concern about contracting or transmitting the virus are also those with the least union or institutional coverage, as these results illustrate.

Table 4 shows the implementation of protective measures according to the presence of worker representatives in the workplace, concerns about COVID-19 contraction and transmission, and workers' sociodemographic and occupational characteristics. The presence of representatives is associated with a greater implementation of protective measures. For example, 39.5% of those with representatives could telework, compared to 21.3% of those without; 44.7% experienced reorganisations of workstations to maintain

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Table 6. Concern about transmitting COVID-19 according to the degree of participatory implementation of protective measures

	TOTAL *n° (% of total)*	Concern about transmitting COVID-19		cOR (95% CI)[a]	aOR (95% CI)[b]
		NO-concern *n° (%)*	YES-concern *n° (%)*		
Organisational protective measures					
Introduce teleworking					
CAT1	2608 (13.9)	1512 (58.0)	1096 (42.0)	1[c]	1[c]
CAT2	9307 (49.8)	5450 (58.6)	3857 (41.4)	0.98 (0.89–1.07)	1.02 (0.93–1.12)
CAT3	706 (3.8)	452 (64.0)	254 (36.0)	**0.78 (0.65–0.92)**[e]	0.84 (0.70–1.01)
CAT4	3226 (17.3)	2043 (63.3)	1183 (36.7)	**0.80 (0.72–0.89)**[d]	**0.87 (0.78–0.98)**[e]
CAT5	2849 (15.2)	1865 (65.5)	984 (34.5)	**0.73 (0.65–0.81)**[d]	**0.79 (0.70–0.89)**[e]
Introduce shift work					
CAT1	3100 (16.6)	1828 (59.0)	1272 (41.0)	1[c]	1[c]
CAT2	13711 (73.3)	8282 (60.4)	5429 (39.6)	0.94 (0.87–1.02)	0.99 (0.91–1.08)
CAT3	214 (1.1)	136 (63.6)	78 (36.4)	0.83 (0.62–1.10)	0.89 (0.66–1.20)
CAT4	951 (5.1)	608 (63.9)	343 (36.1)	**0.81 (0.70–0.94)**[e]	0.86 (0.74–1.02)
CAT5	720 (3.9)	468 (65.0)	252 (35.0)	**0.77 (0.65–0.92)**[e]	0.84 (0.70–1.01)
Change from split to continuous shift					
CAT1	3180 (17.0)	1870 (58.8)	1310 (41.2)	1[c]	1[c]
CAT2	14635 (78.3)	8897 (60.8)	5738 (39.2)	0.92 (0.85–1.00)	0.96 (0.89–1.05)
CAT3	134 (0.7)	94 (70.1)	40 (29.9)	**0.61 (0.42–0.89)**[e]	**0.56 (0.38–0.84)**[e]
CAT4	390 (2.1)	236 (60.5)	154 (39.5)	0.93 (0.75–1.16)	0.95 (0.76–1.19)
CAT5	357 (1.9)	225 (63.0)	132 (37.0)	0.84 (0.67–1.05)	0.88 (0.70–1.12)
Change start and finish times					
CAT1	2995 (16.0)	1770 (59.1)	1225 (40.9)	1[c]	1[c]
CAT2	12969 (69.4)	7862 (60.6)	5107 (39.4)	0.94 (0.87–1.02)	1.00 (0.94–1.09)
CAT3	319 (1.7)	194 (60.8)	125 (39.2)	0.93 (0.74–1.18)	1.00 (0.78–1.28)
CAT4	1193 (6.4)	735 (61.6)	458 (38.4)	0.90 (0.79–1.03)	0.94 (0.81–1.09)
CAT5	1220 (6.5)	761 (62.4)	459 (37.6)	0.87 (0.76–1.00)	0.88 (0.76–1.02)
Shorten working hours					
CAT1	3211 (17.2)	1903 (59.3)	1308 (40.7)	1[c]	1[c]
CAT2	14949 (80.0)	9086 (60.8)	5863 (39.2)	0.94 (0.87–1.02)	0.98 (0.90–1.07)
CAT3	103 (0.6)	61 (59.2)	42 (40.8)	1.00 (0.67–1.49)	0.97 (0.64–1.46)
CAT4	221 (1.2)	140 (63.3)	81 (36.7)	0.84 (0.64–1.12)	0.89 (0.66–1.20)
CAT5	212 (1.1)	132 (62.3)	80 (37.7)	0.88 (0.66–1.17)	0.92 (0.68–1.25)
Move workers to other workplaces					
CAT1	3284 (17.6)	1946 (59.3)	1338 (40.7)	1[c]	1[c]
CAT2	15021 (80.3)	9128 (60.8)	5893 (39.2)	0.94 (0.87–1.01)	0.99 (0.91–1.07)

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Table 6. (*Continued*)

	TOTAL *n° (% of total)*	Concern about transmitting COVID-19		cOR (95% CI)[a]	aOR (95% CI)[b]
		NO-concern *n° (%)*	YES-concern *n° (%)*		
CAT3	30 (0.2)	18 (60.0)	12 (40.0)	0.97 (0.47–2.02)	1.01 (0.48–2.13)
CAT4	224 (1.2)	137 (61.2)	87 (38.8)	0.92 (0.70–1.22)	1.00 (0.75–1.34)
CAT5	137 (0.7)	93 (67.9)	44 (32.1)	**0.69 (0.48–0.99)[e]**	**0.67 (0.45–0.99)[e]**
Change tasks					
CAT1	3238 (17.3)	1915 (59.1)	1313 (40.9)	1[c]	1[c]
CAT2	14872 (79.5)	9030 (60.7)	5842 (39.3)	0.94 (0.87–1.01)	0.98 (0.90–1.07)
CAT3	76 (0.4)	49 (64.5)	27 (35.5)	0.80 (0.50–1.28)	0.78 (0.47–1.28)
CAT4	336 (1.8)	208 (61.9)	128 (38.1)	0.89 (0.71–1.12)	0.93 (0.73–1.19)
CAT5	174 (0.9)	120 (69.0)	54 (31.0)	**0.65 (0.47–0.91)[e]**	**0.69 (0.49–0.97)[e]**
Collective protective measures					
Provide dividers					
CAT1	2628 (14.1)	1551 (59.0)	1077 (41.0)	1[c]	1[c]
CAT2	10148 (54.3)	5978 (58.9)	4170 (41.1)	1.01 (0.92–1.10)	1.04 (0.95–1.14)
CAT3	686 (3.7)	413 (60.2)	273 (39.8)	0.95 (0.80–1.13)	0.94 (0.79–1.13)
CAT4	3027 (16.2)	1954 (64.6)	1073 (35.4)	**0.79 (0.71–0.88)[d]**	**0.83 (0.75–0.95)[e]**
CAT5	2207 (11.8)	1426 (64.6)	781 (35.4)	**0.79 (0.70–0.89)[d]**	**0.83 (0.73–0.94)[e]**
Organise workstations to maintain a distance of 1.5 m					
CAT1	2260 (12.1)	1299 (57.5)	961 (42.5)	1[c]	1[c]
CAT2	8511 (45.5)	4928 (57.9)	3583 (42.1)	0.98 (0.90–1.08)	1.03 (0.93–1.13)
CAT3	1054 (5.6)	665 (63.1)	389 (36.9)	**0.79 (0.68–0.92)[e]**	**0.83 (0.71–0.97)[e]**
CAT4	3921 (21.0)	2532 (64.6)	1389 (35.4)	**0.74 (0.67–0.82)[d]**	**0.81 (0.72–0.90)[d]**
CAT5	2950 (15.8)	1898 (64.3)	1052 (35.7)	**0.75 (0.67–0.84)[d]**	**0.80 (0.71–0.90)[d]**
Provide disinfectant gel					
CAT1	565 (3.0)	336 (59.5)	229 (40.5)	1[c]	1[c]
CAT2	1961 (10.5)	1130 (57.6)	831 (42.4)	1.08 (0.89–1.31)	1.13 (0.92–1.38)
CAT3	2749 (14.7)	1628 (59.2)	1121 (40.8)	1.01 (0.84–1.22)	1.03 (0.85–1.25)
CAT4	8348 (44.7)	5137 (61.5)	3211 (38.5)	0.92 (0.77–1.10)	0.99 (0.82–1.19)
CAT5	5073 (27.1)	3091 (60.9)	1982 (39.1)	0.94 (0.79–1.12)	1.00 (0.83–1.20)
Personal protective measures					
Provide gloves					
CAT1	2058 (11.0)	1224 (59.5)	834 (40.5)	1[c]	1[c]
CAT2	8345 (44.6)	5110 (61.2)	3235 (38.8)	0.93 (0.84–1.03)	0.97 (0.88–1.08)
CAT3	1256 (6.7)	740 (58.9)	516 (41.1)	1.02 (0.89–1.18)	0.95 (0.82–1.11)
CAT4	4247 (22.7)	2582 (60.8)	1665 (39.2)	0.95 (0.85–1.05)	0.94 (0.84–1.06)
CAT5	2790 (14.9)	1666 (59.7)	1124 (40.3)	1.00 (0.88–1.11)	0.97 (0.86–1.10)

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Table 6. (*Continued*)

	TOTAL *n° (% of total)*	Concern about transmitting COVID-19		cOR (95% CI)[a]	aOR (95% CI)[b]
		NO-concern *n° (%)*	YES-concern *n° (%)*		
Provide masks					
CAT1	915 (4.9)	517 (56.5)	398 (43.5)	1[c]	1[c]
CAT2	2228 (11.9)	1347 (60.5)	881 (39.5)	0.85 (0.73–1.00)	0.91 (0.77–1.07)
CAT3	2399 (12.8)	1447 (60.3)	952 (39.7)	0.86 (0.73–1.00)	0.86–(0.73–1.01)
CAT4	7550 (40.4)	4619 (61.2)	2931 (38.8)	**0.82 (0.72–0.95)**[e]	0.87 (0.75–1.01)
CAT5	5604 (30.0)	3392 (60.5)	2212 (39.5)	0.85 (0.74–0.98)	0.87 (0.75–1.01)
Provide uniforms/ special suits					
CAT1	3034 (16.2)	1798 (59.2)	1238 (40.8)	1[c]	1[c]
CAT2	13103 (70.1)	7980 (60.9)	5123 (39.1)	0.93 (0.86–1.01)	0.98 (0.90–1.07)
CAT3	278 (1.5)	166 (59.7)	112 (40.3)	0.98 (0.76–1.26)	0.95 (0.73–1.23)
CAT4	1310 (7.0)	814 (62.2)	494 (37.8)	0.88 (0.77–1.01)	0.93 (0.80–1.07)
CAT5	972 (5.2)	564 (58.1)	407 (41.9)	1.05 (0.91–1.21)	1.06 (0.91–1.24)

[a] cOR: crude odds ratio. 95% CI: 95% confidence interval. No concern of transmitting COVID-19 was the reference category.
[b] aOR: adjusted odds ratio by gender identity (reference category: women); age (reference category: 16-34); nationality (Spanish); contract type (permanent); company ownership (private sector); occupational social class (manual); and economic activity (primary).
[c] For each of the 13 COVID-19 protective measures, an indicator with five differentiated occupational risk prevention categories (hereinafter CAT) was constructed, where CAT1 was the reference category in the regression analysis. Categories are defined as CAT1: No implementation of the protective measure plus no presence of worker representatives in the workplace or presence unknown; CAT2: No implementation of the protective measure, but with presence of worker representatives; CAT3: Implementation of the protective measure, but no presence of worker representatives or presence unknown; CAT4: Implementation of the protective measure plus presence of worker representatives, but they did not participate, or their involvement in negotiating the protective measure is unknown; and CAT5: Implementation of the protective measure plus presence of worker representatives, and they actively participated in negotiating the measure's implementation.
[d] $p < 0.001$.
[e] $p < 0.05$.
Bold values indicate the highest percentages within each category for concern about contracting and transmitting COVID-19.

distancing, compared to 31.8%; and 85.4% received face masks, compared to 72.3%. Similarly, concern about contraction was significantly higher among those without access to such measures. Only 30.3% of those concerned about becoming infected could telework, compared to 40.6% of those who were not. Lower rates of distribution of gel, gloves, and masks were observed among concerned workers. Although differences were less pronounced regarding concern about COVID-19 transmission, the pattern holds. Overall, the descriptive results underline a dual axis of vulnerability: certain groups face greater exposure to infection risk due to their employment conditions (e.g. young age, manual occupations, private sector, or high-exposure sectors) while simultaneously having less access to protective resources such as worker representation or effective implementation of protective measures. This dual pattern is consistently linked to greater concern about contracting and transmitting COVID-19.

Regression analysis on concern about contracting COVID-19

The logistic regression analyses in Table 5 generally reveal a positive association between the implementation of COVID-19 protective measures in workplaces and reduced employee concern about contracting the disease. This relationship is observed in 12 out of 13 indicators of the three categories involving application of protective measures (CAT3,

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CAT4, and CAT5). For instance, compared to those without telework or representatives (CAT1), employees with telework options through negotiations with worker representatives (CAT5) show 1.59 times lower odds of expressing concern about contracting COVID-19: CAT5; aOR = 0.63; 95% CI: 0.53–0.71.[3] This signals an initial 'union effect', as workplaces with worker representatives are more likely to implement COVID-19 protective measures (see Table 2 in the Appendix)

Regarding the type of protective measure implemented, more sophisticated organisational measures are related to 1.56 times lower odds of individuals reporting concern about contracting COVID-19. For example: shorten working hours – CAT4 (aOR = 0.64; 95% CI: 0.47–0.87); move workers to other workplaces – CAT5 (aOR = 0.63; 95% CI: 0.43–0.95); and change tasks – CAT5 (aOR = 0.64; 95% CI: 0.46–0.90). In contrast, personal protective measures show a slightly weaker positive association, corresponding to 1.28 times lower odds: gloves – CAT5 (aOR = 0.78; 95% CI: 0.69–0.91); masks – CAT5 (aOR = 0.78; 95% CI: 0.67–0.91); and uniforms – CAT4 (aOR = 0.78; 95% CI: 0.68–0.91). Despite the greater association with more sophisticated organisational measures, these are rarely implemented, with working hours reduced in only 2.9% of cases and task changes or relocation in 2.1% and 3.1% or cases, respectively (see Table 3; and Table 2 in the Appendix).

A second 'union effect' emerges, characterised by a more pronounced reduction in concern about contracting COVID-19 when worker representatives actively negotiated and participated in the implementation of COVID-19 protective measures (CAT5), compared to scenarios with no participation of representatives (CAT4) or with implementation of the protective measures but without worker representation or unawareness of it (CAT3). Notably, the positive association is statistically significant only for the more sophisticated organisational measures when negotiated by worker representatives: moving workers to other workplaces – CAT5 (aOR = 0.63; 95% CI: 0.43–0.95); and changing tasks – CAT5 (aOR = 0.64; 95% CI: 0.46–0.90). However, this 'union effect' faced barriers due to the low participation rates of worker representatives (see the 'YES-Rep Participate' column of Table 2 in the Appendix).

The robustness of the results obtained is supported by complementary analyses. For example, when replacing the dependent variable with the Mental Health Inventory-5, a consistent association was observed between the participatory implementation of measures and better mental health (see Table 1 in the Appendix). For most of the analysed measures, the CAT5 category was associated with a significant reduction in the risk of poor mental health. In contrast, measures implemented without union participation (CAT3 and CAT4 categories) showed weaker effects. This suggests that measures that reduced concern about contraction also contributed to improved mental health, thus highlighting the beneficial role of worker representation.

Stratification analyses (see Appendix Tables 3, 4, and 5) reinforce this finding. The benefits of participatory measures were significant for both manual and non-manual workers (see Appendix Table 3). For manual employment specifically, the magnitude of the effect was slightly higher for organisational measures such as shift change (CAT5: aOR = 0.68) and task change (CAT5: aOR = 0.64). Therefore, worker representation may mitigate inequalities, as manual workers experience more pronounced reductions in concern when active bargaining occurs (CAT5).

At the same time, limitations to the participation of representatives can be identified in our analyses. For instance, supplementary Table 4 shows that workers with permanent contracts had consistently lower aOR for most CAT5 measures (11 out of 13) of becoming infected with SARS-CoV-2, contrasting with temporary workers (4 out of 13). This suggests implementation barriers in groups with lower representation as already illustrated in Tables 3, 4 of the descriptive analyses. A similar picture appears when analysing the association between concern and measures according to our proxy of essential jobs (assessed by the level of worker representation and sectoral concern about transmission in

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Appendix Table 5). Sectors with high worker representation and low concern (industry; administrative and related services; information and communications; professional, scientific and technical activities) showed the most consistent and significant protective effects. In this group, negotiated telework (CAT5) was associated with an aOR of 0.57 and change of tasks with an aOR of 0.53. In contrast, in sectors with low representation and high concern (wholesale and retail trade; hotels and catering; cleaning of buildings and premises), associations were weak or not significant, confirming the limitations of the union effect in precarious, poorly institutionalised and under-represented contexts.

Regression analysis on concern about transmitting COVID-19

Compared to concern about contracting COVID-19, the results show a lower frequency of statistically significant association between implementation of COVID-19 protective measures and reduced concern about transmitting the disease (Table 6). Only 6 of the 13 indicators show this relationship, involving the implementation of four organisational measures (introduce teleworking, change from split to continuous shift, move workers to other workplaces, and change tasks) and two collective measures (provide dividers and organise workstations to maintain a 1.5-metre distance). As with concern about contracting COVID-19, negotiating more sophisticated organisational measures with worker representatives is more strongly associated with reduced concern of transmitting it: move workers to other workplaces – CAT5 (aOR = 0.67; 95% CI: 0.45–0.99); and change tasks – CAT5 (aOR = 0.69; 95% CI: 0.49–0.97).

Discussion and conclusions

This research examined the relationship between worker representatives' active participation in the negotiation and implementation of COVID-19 protective measures and worker concerns about contracting or transmitting the disease as a proxy of fear. From a multivariate analysis on a sample of wage earners affiliated to CCOO, two distinct 'effects' linked to union representation were identified. First, the results generally support that active participation of workers' representatives in the negotiation of COVID-19 protective measures (in the present analysis, CAT5) is associated with less concern about contraction or transmission. It is true that the mere existence of COVID-19 protective measures, even without the active involvement of worker representatives in their implementation, also reduces concern about becoming infected (CAT4) compared to their absence (CAT1). However, this reduction is less pronounced when workers' representatives are not involved in the negotiation and implementation of these measures, consistent with the analyses of Robinson and Smallman (2013). Thus, the results obtained confirm and support the initial hypotheses of the present study.

Second, workplaces with worker representation (CAT4) tend to implement more protective measures than those without (CAT3). This aligns with both classic studies on occupational health (Coutrot 2009; Jirjahn et al 2022; Ollé-Espluga et al 2015) and specific research focused on the pandemic context (Crowell et al 2021; Dean et al 2020; Moore et al 2021;Ollé-Espluga et al 2024). Existing research relates the implementation of COVID-19 protective measures to reduced psychological distress (Asaoka et al 2022; Chaudhry et al 2023). This study adds to literature about worker representation by highlighting that representatives not only enhance the implementation of such measures but also potentially act as a protective factor for mental health. Thus, the combination of safety measures plus the involvement of worker representatives in decision-making may mitigate the relationship between perceived risk of infection in the workplace and mental health outcomes (Eguchi et al 2021; Falco et al 2021). By providing reliable information,

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facilitating access to negotiated preventive measures, and fostering safer work environments, representatives can help reduce uncertainty and, consequently, psychological distress (Eguchi et al 2021; Falco et al 2021). Furthermore, being concerned about contracting or transmitting the virus is associated with poorer mental health. When mental health is used as an alternative dependent variable (see Table 1 in the Appendix), the results obtained are comparable to those found when concern is the main variable. This reinforces the underlying relationships between the presence of worker representatives, their negotiated participation, and the mitigation of both anticipatory worry and the risk of poor mental health.

Consistent with Chaudhry et al (2023), in the present study stronger associations with reduced concern about contracting COVID-19 are found when implementing more sophisticated organisational measures than the provision of personal protective equipment. This could be explained by the fact that organisational measures ensure physical distancing while the effectiveness of personal protective measures depends on individual compliance (Chaudhry et al 2023). In contrast, Asaoka et al (2022) found that individual prevention measures (such as hydroalcoholic gel, gloves, and masks) provided the greatest psychological protection. In our study, only the stratified analysis by occupation type (see Appendix Table 3) showed that the use of PPE was associated with reduced concern about COVID-19 contraction among manual workers, but not among non-manual workers. As COVID-19 protective measures were mandatory when determined by a risk assessment (Ministerio de Sanidad 2021), it is likely that risk assessments for manual jobs mainly recommended the use of personal protective equipment (PPE), whereas those for non-manual jobs tended to recommend organisational measures, such as teleworking or task restructuring. This remains a subject for future study.

Despite the positive implications of worker representation, several barriers limiting its scope have been identified. The low level of participation of worker representatives in the negotiation of protective measures (see Table 2 in the Appendix) reinforces the argument of Boix et al (2013) that labour representation should not be viewed solely as a technical or functional mechanism. Rather, it is an asymmetrical power relationship between capital and labour within the framework of industrial democracy. In the Spanish case, the unions' limited structural market power – closely linked to employment precariousness – restricts representatives' lobbying and bargaining power. Our results also confirm a pattern of double vulnerability in terms of contracting and transmitting COVID-19 (see Tables 2– 4). While certain groups of workers (i.e. young people, manual workers, employees in the private sector, and in sectors such as commerce, cleaning, or private security) show significantly higher levels of concern about contracting COVD-19, this does not translate into greater organisational protection. This dynamic reproduces what Williams (2020) called the 'coronavirus class divide', in which workers with less structural power face higher risks of exposure. Concurrently, access to both worker representation and preventive measures is not homogeneous in our results, as previously pointed out in Menéndez et al (2009) and Walters and Wadsworth (2014). Once again, groups such as young people, migrants, those with temporary contracts, and those working in sectors such as cleaning and hospitality are less likely to have worker representation and effective protection measures. This finding indicates a process of cumulative exclusion, where greater exposure to risk is combined with weak institutional protection, thus reproducing structural logics of inequality (Devereux and Wadsworth 2022; Qureshi et al 2024; Ruiz et al 2022). Indeed, stratified regression analyses confirm that negotiated representative participation (category CAT5) shows no or very weak statistically significant associations among temporary workers or workers in sectors with low representation and high contagion concerns (see Tables 4 and 5 in the Appendix). This result stresses the structural limitations of union action in contexts of precariousness and the low institutionalisation of labour representation.

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Additionally, the negotiated implementation of protective measures was less effective in reducing concerns about COVID-19 transmission than contraction, which might reflect factors that go beyond the workplace, such as personal circumstances or family vulnerability (Chowdhury et al 2022). Further research is needed on those factors limiting the scope and effectiveness of worker representatives in this area. For example, delving into those factors facilitating the most favourable and less frequent scenarios for workers, such as active participation of worker representatives in the negotiation and implementation of organisational measures.

Policy and practice recommendations

The following recommendations can be derived from the results of the study. Firstly, regulatory and organisational mechanisms should be established to guarantee the presence of workers' representatives in workplaces, particularly in sectors with high-risk exposure and low union coverage, such as cleaning, hospitality, retail, and private security. To this end, incentives could be offered to encourage the constitution of representative bodies in small companies, and reforms could be introduced to facilitate union action in fragmented or precarious work environments by implementing territorial safety representatives (Payá Castiblanque 2020a). Secondly, the active role of representatives in planning, designing, and implementing prevention measures must be strengthened, moving beyond an approach limited to mere consultation or information. Regulatory frameworks could be established that require the negotiation and co-management of preventive protocols with representatives on health and safety committees. The third proposal is to include workers' representation in the planning of health emergencies to systematically integrate representative participation as a key player in the development of contingency plans, risk assessment, and the implementation of occupational health measures. Fourthly, given the dual pattern of vulnerability identified in the study, occupational health and safety policies should pay particular attention to young people, migrants, temporary contract workers, and manual labourers. Measures could include specific preventive audits in underrepresented sectors, union and labour rights training campaigns targeting underrepresented groups, and the inclusion of equity clauses in collective bargaining agreements to ensure effective access to protection. A final recommendation is aimed at labour authorities to develop specific indicators to evaluate not only the formal existence of worker representation, but also the degree of effective participation in occupational health decision-making processes.

Limitations

The study, based on a cross-sectional survey among members of the CCOO union, has its limitations. In addition to the cross-sectional design of the research, the sample used may overestimate the presence of workers' representatives in workplaces. 80.7% of respondents reported having such representation, compared to around 50% in Spain as a whole (Jódar et al 2018). The use of a non-representative sample could constitute a serious limitation if our objective were to estimate population parameters. In the present study, however, the focus lies on examining the association between the degree of implementation of protective measures and workers' concern about COVID-19 contraction and transmission. In such cases, sample representativeness is not a prerequisite (Rothman et al 2013), as valid inferences about associations between exposure and outcome can still be drawn, provided that potential confounders are adequately controlled. To this end, our analysis incorporated covariates identified in the existing literature, and a multivariate analysis technique was employed to control for confounding factors. The only variable included in the regression analysis was the firm/work centre size, as this information was

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not included in the survey. Nonetheless, the exclusion of this variable might not have a substantial impact, given its interrelation with both the presence of worker representatives and the implementation of preventive measures. Indeed, as observed in a previous study conducted in Spain, the presence of worker representatives may reflect the effect of organisational size (Ollé-Espluga et al 2015). Moreover, additional stratified analyses by occupation type, contract type, and a proxy for the essential nature of work have allowed us to test the robustness of the analyses from the perspective of potential biases by further restricting the study populations.

The dependent variables used in this study to capture concern about COVID-19 contraction and transmission were created ad hoc for the COTS2 questionnaire and did not directly contain the word 'fear' in their wording, as in other published studies (Ahorsu et al 2022; Mertens et al 2020) that use 'worry' as a proxy for fear. To overcome this limitation, a complementary analysis was undertaken with another dependent variable included in the survey indirectly reporting on fear and unrest, the Mental Health Inventory-5 (Vilagut et al 2005). The results with this additional variable were in line with those referred to concern.

Conclusions

This paper offers a significant contribution to the literature on occupational health and worker representation. It presents novel empirical evidence on the association between worker representatives' active involvement in negotiating COVID-19 protective measures and lower levels about concern of contraction and transmission. This emotional dimension – closely linked to mental health – has been largely overlooked in prior research on workplace representation. Thus, the findings broaden classic occupational safety literature by showing that the protective role of worker representation extends beyond physical harm reduction to include psychosocial risks, especially in times of public health crisis. In doing so, the study underscores the structural importance of worker voice in industrial democracy. The findings also reveal inequalities in access to protection. Precarious workers – those on temporary contracts, in low-skilled manual jobs, or in poorly unionised sectors – are both more concerned about becoming infected and less likely to benefit from protective measures negotiated by representatives. This dual pattern of vulnerability calls for targeted policy responses.

Future research could explore how worker representation shapes fear and perceived safety over time using longitudinal designs. Qualitative and comparative studies may also offer deeper insights into the mechanisms of representative participation across different institutional and sectoral settings. Ensuring not just the presence but the active participation of worker representatives is essential to safeguarding both physical and mental well-being in present and future workplace crises.

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Notes

1 The general formula of the logistic regression model used in this study is: $log\left(p/\left(1-p\right)\right) = \beta_0 + \sum_{(i=1tok)}\beta_i X_i + \sum_{(j=1tom)}\gamma_j C_j$ where p represents the probability that a worker expresses concern about contracting or transmitting COVID-19. The variables X_i correspond to the synthetic indicators of

implementation of protective measures by category (CAT1 to CAT5) for each of the 13 measures analysed, and C_j are the sociodemographic and occupational control variables (age, gender, nationality, occupational class, type of contract, company ownership, and economic sector). The model estimates adjusted odds ratios (aOR) using multivariate logistic regression.

2 A four-quadrant typology was used in supplementary Table 5 as an approximation for the classification of essential workers since essential and non-essential jobs with greater or lesser exposure to the virus may coexist within the same sector of activity and due to the impossibility of distinguishing them in this study. This typology combines the existence of worker representation and the level of concern regarding COVID-19 transmission, both differentiated according to whether they are above or below the sample mean.

3 To clarify the interpretation of the results related to protective measure implementation – in this case, introduce teleworking – the adjusted odds ratio (aOR) value is presented positively. The inverse calculation is performed using the formula $1/\text{aOR} = 1/0.63 = 1.59$, highlighting a reduced likelihood of expressing concern compared to the reference group (CAT1)

References

Ahorsu DK, Lin CY, Imani V, Saffari M, Griffiths MD and Pakpour AH (2022) The fear of COVID-19 scale: Development and initial validation. *International Journal of Mental Health and Addiction* 20, 1537–1545. https://doi.org/10.1007/s11469-020-00270-8.

Al Maqbali M, Alsayed A, Hughes C, Hacker E and Dickens GL (2024) Stress, anxiety, depression and sleep disturbance among healthcare professional during the COVID-19 pandemic: An umbrella review of 72 meta-analyses. *PLoS One* 19(5), e0302597. https://doi.org/10.1371/journal.pone.0302597.

Alimoradi Z, Ohayon MM, Griffiths MD, Lin CY and Pakpour AH (2022) Fear of COVID-19 and its association with mental health-related factors: systematic review and meta-analysis. *BJPsych Open* 8(2), e73. https://doi.org/10.1192/bjo.2022.26.

Arora A, Jha AK, Alat P and Das SS (2020) Understanding coronaphobia. *Asian Journal of Psychiatry* 54, 102384. https://doi.org/10.1016/j.ajp.2020.102384.

Asaoka H, Sasaki N, Imamura K, Kuroda R, Tsuno K and Kawakami N (2022) Effects of workplace measures against COVID-19 on psychological distress of full-time employees: A. 12-month prospective study in the COVID-19 pandemic. *Scandinavian Journal of Work, Environment & Health* 48(6), 468–478. https://doi.org/10.5271/sjweh.4030.

Bartolj T, Murovec N and Polanec S (2022) Reported time allocation and emotional exhaustion during COVID-19 pandemic lockdown in Slovenia. *The Economic and Labour Relations Review* 33(1), 117–137. https://doi.org/10.1177/10353046211070042.

Boix P and Vogel L (2013) Participación de los trabajadores [Worker participation]. In Ruiz-Frutos C, Delclòs J and Ronda E (eds), *Salud laboral: conceptos y técnicas para la prevención de riesgos laborales [Occupational health: concepts and techniques for the prevention of occupational hazards]*. Barcelona, Spain: Elsevier, pp. 151–160.

CCOO (2024) CCOO Primer Sindicato [CCOO Leading Trade Union], Gaceta Sindical 516. Available at https://www.ccoo.es/5a1c113443d473fdb757319fa0989caa000001.pdf (accessed 12 November 2024).

Chaudhry NI, Rasool SF, Raza M, Mhelska H and Ur Rehman F (2023) Exploring the linkage between workplace precaution measures, covid-19 fear and job performance: The moderating effect of academic competence. *Current Psychology* 42, 20239–20258. https://doi.org/10.1007/s12144-023-04728-5.

Chowdhury N, Kainth A, Godlu A, Farinas HA, Sikdar S and Turin TC (2022) Mental health and well-being needs among non-health essential workers during recent epidemics and pandemics. *International Journal of Environmental Research & Public Health* 19(10), 5961. https://doi.org/10.3390/ijerph19105961.

Coutrot T (2009) Le rôle des comités d'hygiène, de sécurité et des conditions de travail en France: Une analyse empirique [The role of health and safety committees in France: An empirical analysis]. *Travail et Emploi* 117, 25–38. https://doi.org/10.4000/travailemploi.4108.

Crowell NA, Hanson A, Boudreau L, Robbins R and Sokas RK (2021) Union efforts to reduce COVID-19 infections among grocery store workers. *New Solutions: A Journal of Environmental and Occupational Health Policy*. 31(2), 170–177. https://doi.org/10.1177/10482911211015676.

Dean A, Venkataramani A and Kimmel S (2020) Mortality rates from COVID-19 are lower in unionized nursing homes. *Health Affairs* 39(11), 1993–2001. https://doi.org/10.1377/hlthaff.2020.01011.

Devereux H and Wadsworth E (2022) Forgotten keyworkers: The experiences of British seafarers during the COVID-19 pandemic. *The Economic and Labour Relations Review* 33(2), 272–289. https://doi.org/10.1177/10353046221079136.

https://doi.org/10.1017/elr.2026.10069 Published online by Cambridge University Press

Eguchi H, Hino A, Inoue A, Tsuji M, Tateishi S, Ando H, Nagata T, Matsuda S and Fujino Y (2021) Effect of anxiety about COVID-19 infection in the workplace on the association between job demands and psychological distress. *Frontiers in Public Health* 9, 722071. https://doi.org/10.3389/fpubh.2021.722071.

Ernst M, Niederer D, Werner AM, Mikton C S J, Ong C, Rosen AD, Brähler ET and Beutel ME (2022) Loneliness before and during the COVID-19 pandemic: A systematic review with meta-analysis. *American Psychologist* 77(5), 660–677. https://doi.org/10.1037/amp0001005.

Falco A, Girardi D, Dal Corso L, Yıldırım M and Converso D (2021) The perceived risk of being infected at work: An application of the job demands-resources model to workplace safety during the COVID-19 outbreak. *PLoS One* 16(9), e0257197. https://doi.org/10.1371/journal.pone.0257197.

Fetzer T, Hensel L, Hermle J and Roth C (2021) Coronavirus perceptions and economic anxiety. *The Review of Economics and Statistics* 103(5), 968–978. https://doi.org/10.1162/rest_a_00946.

Garcia R (2017) Neurobiology of fear and specific phobias. *Learning & Memory* 24(9), 462–471. https://doi.org/10.1101/lm.044115.116.

García-Miguélez MP (2009) La participación de los trabajadores en materia de prevención de riesgos laborales [Worker participation in occupational risk prevention]. *Pecvnia: Revista de la Facultad de Ciencias Económicas y Empresariales, Universidad de León* 8, 121–147. https://doi.org/10.18002/pec.v0i8.677.

Giorgi G, Lecca LI, Alessio F, Finstad GL, Bondanini G and Lulli LG (2020) COVID-19-related mental health effects in the workplace: A narrative review. *International Journal of Environmental Research & Public Health* 17(21), 7857. https://doi.org/10.3390/ijerph17217857.

Graham CA and Walters D (2021) Representation of seafarers' occupational safety and health: Limits of the maritime labour convention. *The Economic and Labour Relations Review* 32(2), 266–282. https://doi.org/10.1177/1035304620981374.

Gunningham N (2008) Occupational health and safety, worker participation and the mining industry in a changing world of work. *Economic and Industrial Democracy* 29(3), 336–361. https://doi.org/10.1177/0143831X08092460.

Han MFY, Mahendran R and Yu J (2021) Associations between fear of COVID-19, affective symptoms and risk perception among community-dwelling older adults during a COVID-19 lockdown. *Frontiers in Psychology* 12, 638831. https://doi.org/10.3389/fpsyg.2021.638831.

Islam N, Jdanov DA, Shkolnikov VM, Khunti K, Kawachi I, White M, Lewington S and Lacey B (2021) Effects of covid-19 pandemic on life expectancy and premature mortality in 2020: Time series analysis in 37 countries. *British Medical Journal* 375, e066768. https://doi.org/10.1136/bmj-2021-066768.

Jirjahn U, Mohrenweiser J and Smith SC (2022) Works councils and workplace health promotion in Germany. *Economic and Industrial Democracy* 43(3), 1059–1094. https://doi.org/10.1177/0143831X20971051.

Jódar P, Alós R, Beneyto P and Vidal S (2018) La representación sindical en España: Cobertura y límites [Trade union representation in Spain: coverage and limits]. *Cuadernos de Relaciones Laborales* 36(1), 15–34. https://doi.org/10.5209/CRLA.59555.

Llorens-Serrano C, Salas-Nicás S, Navarro-Giné A and Moncada Lluís S (2022) Delegation and consultation on operational and tactical issues: Any difference in their potentialities for a healthier psychosocial work environment? *American Journal of Industrial Medicine* 65(10), 800–812. https://doi.org/10.1002/ajim.23414.

Llorens-Serrano C, Navarro-Giné A, Salas-Nicás S and Moncada Lluís S (2021) Condiciones de trabajo y salud tras un año de pandemia, Resultados de la encuesta COTS en 2021 y comparación con 2020 [Working Conditions and Health One Year Into the Pandemic: Results of the 2021 COTS Survey and Comparison with 2020], Barcelona, UAB, ISTASCCOO. Available at https://ddd.uab.cat/pub/infpro/2021/248230/Informe_COTS2_2021.pdf (accessed 12 November 2024).

Luo F, Ghanei Gheshlagh R, Dalvand S, Saedmoucheshi S and Li Q (2021) Systematic review and meta-analysis of fear of COVID-19. *Frontiers in Psychology* 12, 661078. https://doi.org/10.3389/fpsyg.2021.661078.

Martín D (1995) La participation directe en entreprise: de la résistance clandestine à la mobilisation managériale [Direct participation in companies: From clandestine resistance to managerial mobilization]. *Cahiers Internationaux de Sociologie* 99, 369–400, http://www.jstor.org/stable/40690646.

Matilla-Santander N, Martín-Sánchez JC, González-Marrón A, Cartanyà-Hueso À, Lidón-Moyano C and Martínez-Sánchez JM (2021) Precarious employment, unemployment and their association with health-related outcomes in 35 European countries: A cross-sectional study. *Critical Public Health* 31(4), 404–415. https://doi.org/10.1080/09581596.2019.1701183.

Menéndez M, Benach J and Vogel L (2009) *The Impact of Safety Representatives on Occupational Health. A European Perspective.* Brussels: ETUI. Available at https://www.etui.org/publications/reports/the-impact-of-safety-representatives-on-occupational-health (accessed 12 November 2024).

Mertens G, Gerritsen L, Duijndam S, Salemink E and Engelhard IM (2020) Fear of the coronavirus (COVID-19): Predictors in an online study conducted in March 2020. *Journal of Anxiety Disorders* 74, 102258. https://doi.org/10.1016/j.janxdis.2020.102258.

https://doi.org/10.1017/elr.2026.10069 Published online by Cambridge University Press

Ministerio de Sanidad (2021) Procedimiento De Actuación Para Los Servicios De Prevención De Riesgos Laborales Frente a LA Exposición Al SARS-CoV-2 [Procedure for Occupational Risk Prevention Services in the Event of Exposure to SARS-CoV-2]. [Procedure for Occupational Risk Prevention Services in the event of exposure to SARS-CoV-2]. Madrid: Ministerio de Sanidad. Available at https://www.sanidad.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov/documentos/Proteccion_Trabajadores_SARS-CoV-2.pdf (accessed 12 November 2024).

Moore S, Ball C, Cai M, Flynn M and Mulkearn K (2021) Research Into Covid-19 Workplace Safety Outcomes. London. Trades Union Congress and University of Greenwich. Available at https://gala.gre.ac.uk/id/eprint/33634/1/33634_BALL_Research_into_C19_workplace.pdf (accessed 12 November 2024).

Murtin F, Arnaud B, Le Thi C and Parent-Thirion A (2022) *The Relationship between Quality of the Working Environment, Workers' Health and Well-being: Evidence from 28 OECD Countries. OECD Papers on Well-being and Inequalities, No. 4*. Paris: OECD Publishing. https://doi.org/10.1787/c3be1162-en.

Na L, Yang L, Mezo PG and Liu R (2022) Age disparities in mental health during the COVID19 pandemic: The roles of resilience and coping. *Social Science & Medicine* 305, 115031. https://doi.org/10.1016/j.socscimed.2022.115031.

Nichols T, Walters D and Tasiran AC (2007) Trade unions, institutional mediation and industrial safety: Evidence from the UK. *Journal of Industrial Relations* 49(2), 211–225. https://doi.org/10.1177/0022185607074919.

Ollé-Espluga L, Vergara-Duarte M, Belvis F, Menéndez-Fuster M, Jódar P and Benach J (2015) What is the impact on occupational health and safety when workers know they have safety representatives? *Safety Science* 74, 55–58. https://doi.org/10.1016/j.ssci.2014.11.022.

Ollé-Espluga L, Payá Castiblanque R, Llorens-Serrano C, Esteve-Matalí L and Navarro-Giné A (2024) Protective action in the workplace in the time of COVID-19: The role of worker representation. *American Journal of Industrial Medicine* 67(5), 453–465. https://doi.org/10.1002/ajim.23578.

Payá Castiblanque R (2020a) The impact of the direct participation of workers on the rates of absenteeism in the Spanish labor environment. *International Journal of Environmental Research & Public Health* 17(7), 2477. https://doi.org/10.3390/ijerph17072477.

Payá Castiblanque R (2020b) The role of the unitary prevention delegates in the participative management of occupational risk prevention and its impact on occupational accidents in the Spanish working environment. *International Journal of Environmental Research & Public Health* 17(16), 5678. https://doi.org/10.3390/ijerph17165678.

Payá Castiblanque R (2023) El impacto de la participación de los trabajadores en la prevención de riesgos psicosociales en el medio laboral español [The impact of worker participation in the prevention of psychosocial risks in the Spanish workplace]. *Aposta. Revista de Ciencias Sociales* 96, 8–35, http://apostadigital.com/revistav3/hemeroteca/rpaya2.pdf.

Qureshi MO, Harris P, Jegasothy E, Seale H, Chughtai A and Quinlan M (2024) Transport industry workforce risk and exposure to COVID-19 and other related respiratory pandemic diseases: A scoping review. *The Economic and Labour Relations Review* 35(3), 518–555. https://doi.org/10.1017/elr.2024.49.

Rivilis I, Van Eerd D, Cullen K, Cole DC, Irvin E, Tyson J and Mahood Q (2008) Effectiveness of participatory ergonomic interventions on health outcomes: A systematic review. *Applied Ergonomics* 39(3), 342–358. https://doi.org/10.1016/j.apergo.2007.08.006.

Robinson AM and Smallman C (2013) Workplace injury and voice: A comparison of management and union perceptions. *Work, Employment and Society* 27(4), 674–693. https://doi.org/10.1177/0950017012460307.

Rothman KJ, Gallacher JE and Hatch EE (2013) Why representativeness should be avoided. *International Journal of Epidemiology* 42(4), 1012–1014.

Ruiz M, Vives A, Alvarez V, Diaz I and Zaupa A (2022) Health protection among own account and platform workers during COVID19 in Chile. *The PWR Project. European Journal of Public Health* 32(3), ckac131.280. https://doi.org/10.1093/eurpub/ckac131.280.

Sachdeva A, Nandini H, Kumar V, Chawla RK and Chopra K (2022) From stress to stigma – Mental health considerations of health care workers involved in COVID19 management. *Indian Journal of Tuberculosis* 69(4), 590–595. https://doi.org/10.1016/j.ijtb.2021.09.007.

Santomauro DF, Mantilla Herrera AM, Shadid J, Zheng P, Ashbaugh C, Pigott DM, Abbafati C, Adolph C, Amlag JO, Aravkin AY, Bang-Jensen BL, Bertolacci GJ, Bloom SS, Castellano R, Castro E, Chakrabarti S, Chattopadhyay J, Cogen RM, Collins JK, Dai X, Dangel WJ, Dapper C, Deen A, Erickson M, Ewald SB, Flaxman AD, Frostad JJ, Fullman N, Giles JR, Giref AZ, Guo G, He J, Helak M, Hulland EN, Idrisov B, Lindstrom A, Linebarger E, Lotufo PA, Lozano R, Magistro B, Malta DC, Månsson J C, Marinho F, Mokdad AH, Monasta L, Naik P, Nomura S, O'Halloran JK, Ostroff SM, Pasovic M, Penberthy L, Reiner Jr RC, Reinke G, Ribeiro ALP, Sholokhov A, Sorensen RJD, Varavikova E, Vo AT, Walcott R, Watson S, Wiysonge CS, Zigler B, Hay SI, Vos T, Murray CJL, Whiteford HA and Ferrari AJ (2021) Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *Lancet* 398(10312), 1700–1712. https://doi.org/10.1016/S0140-6736(21)02143-7.

https://doi.org/10.1017/elr.2026.10069 Published online by Cambridge University Press

Sasaki N, Kuroda R, Tsuno K and Kawakami N (2020) Workplace responses to COVID-19 associated with mental health and work performance of employees in Japan. *Journal of Occupational Health* 62(1), e12134. https://doi.org/10.1002/1348-9585.12134.

Schou-Bredal I, Bonsaksen T, Ekeberg Ø, Skogstad L, Grimholt TK and Heir T (2022) A comparison between healthcare workers and non-healthcare workers' anxiety, depression and PTSD during the initial COVID-19 lockdown. *Public Health in Practice* 3, 100267. https://doi.org/10.1016/j.puhip.2022.100267.

Shannon HS, Mayr J and Haines T (1997) Overview of the relationship between organizational and workplace factors and injury rates. *Safety Science* 26(3), 201–217. https://doi.org/10.1016/S0925-7535(97)00043-X.

van Barneveld K, Quinlan M, Kriesler P, Junor A, Baum F, Chowdhury A, (Raja) J P, Clibborn S, Flanagan F, Wright CF, Friel S, Halevi J and Rainnie A (2020) The COVID-19 pandemic: Lessons on building more equal and sustainable societies. *The Economic and Labour Relations Review* 31(2), 133–157. https://doi.org/10.1177/1035304620927107.

Vilagut G, Ferrer M, Rajmil L, Rebollo P, Permanyer-Miralda G, Quintana JM, Santed R, Valderas JM, Ribera A, Domingo-Salvany A and Alonso J (2005) El Cuestionario de Salud SF-36 español: Una década de experiencia y nuevos desarrollos [The Spanish version of the short form 36 health survey: A decade of experience and new developments]. *Gaceta Sanitaria* 19(2), 135–150.

Walters D and Nichols T (2007) *Worker Representation and Workplace Health and Safety*. Basingstoke, UK: Palgrave Macmillan.

Walters D, Nichols T, Connor J, Tasiran AC and Cam S, 2005, *The role and Effectiveness of Safety Representatives in Influencing Workplace Health and Safety*. HSE Research Report 363. London: HSE Books. Available at https://repository.mdx.ac.uk/item/814qx (accessed 12 November 2024).

Walters D and Wadsworth E (2014) Contexts and determinants of the management of occupational safety and health in European workplaces. *Policy and Practice in Health and Safety* 12(2), 109–130. https://doi.org/10.1080/14774003.2014.11667806.

Williams M (2020) Coronavirus Class Divide – The Jobs Most at Risk of Contracting and Dying from COVID-19. Available at http://theconversation.com/coronavirus-classdivide-the-jobsmost-at-risk-of-contracting-and-dying-from-covid-19-138857 (accessed 03 July 2025)..

Yassi A, Lockhart K, Sykes M, Buck B, Stime B and Spiegel JM (2013) Effectiveness of joint health and safety committees: A realist review. *American Journal of Industrial Medicine* 56(4), 424–438. https://doi.org/10.1002/ajim.22143.

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