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From Individual Resilience to Institutional Management: Designing a Multilevel Governance Model to Reduce Work-Related Anxiety Among Journalists

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Abstract

Spanish journalists do not suffer from work-related anxiety because they lack resilience; they suffer from it because they work in environments structurally designed to produce it. Based on this premise, this study develops the first empirically grounded multilevel governance model to reduce work-related anxiety among journalists, drawing on 23 in-depth interviews with Spanish professionals who have experienced it through either a diagnosis or self-report, analyzed using reflective thematic analysis. The findings are organized into three interconnected levels—micro, meso, and macro—and identify, respectively, pre-existing protective factors, reactive coping strategies, and advice and recommendations aimed at structural change. Anchored in Job Anxiety Theory and evidence from equivalent complex interventions, the model demonstrates that individual resources only produce sustainable effects when the organizational and sectoral levels actively support them. The asymmetry between the density of the micro level and the precariousness of the meso and macro levels constitutes the study's central finding. Our model redefines anxiety in journalism as an institutional design challenge and offers a scalable, modular, and contextualized architecture for the Spanish media ecosystem.

Keywords: anxiety; journalists; mental health; in-depth interviews; Spain; news media; governance model; newsrooms

1. Introduction

Anxiety is a complex psychological construct encompassing cognitive, physiological, emotional, and behavioral dimensions, conceptually distinct from stress—an adaptive response to environmental demands—from fear—oriented toward immediate and concrete threats—and from burnout or depression (Gavero, 2016; Kogan et al., 2016; Park & Kim, 2020). Its defining feature is a diffuse anticipation of future danger, accompanied by cognitive hypervigilance, autonomic arousal, and avoidance or hypercontrol behaviors (Ressler et al., 2013). Although research in journalism frequently describes symptomatic manifestations using screening instruments, it rarely provides formal clinical definitions based on DSM or ICD criteria[1] (Stein & Nesse, 2015), which underscores both the significance of the phenomenon and the need to address it with greater conceptual precision.

The practice of journalism presents a structural vulnerability to anxiety that transcends individual characteristics. Digital acceleration, constant connectivity, job insecurity, constant time pressure, repeated exposure to violence and hostility, and the ubiquity of algorithmic

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metrics create an environment that systematically generates psychological pressure (Burgess & Hurcombe, 2019; Petre, 2022). A case study on measurement systems in newsrooms showed that the expansion of metrics and algorithmic scores generated uncertainty and frustration among professionals, affecting creativity and control over their work (Retegui, 2020). Similarly, an ethnographic study of a local U.S. television newsroom described an "always-on" environment in which continuous publishing and the inability to disconnect caused anxiety (Higgins-Dobney, 2021). Recent research on the emotional labor of Finnish journalists confronted with audience metrics has confirmed how these tools generate professional uncertainty and anxiety in the face of constant algorithmic evaluation (Ahva & Ovaska, 2023). In the Spanish context, Goyanes and Rodríguez-Gómez (2021) documented how financial instability and layoff processes were redefining professional expectations and generating work-related anxiety associated with occupational presenteeism[2]. More recently, drawing on a representative survey of Spanish journalists and the same holistic global safety framework adopted here, Herrero-Jiménez et al. (2025) identified stress as a prevalent psychosocial risk in the profession and found that its strongest predictors operate at the organizational (meso) level—professional routines and workloads—with statistically significant gender differences, reinforcing a structural, multilevel reading of psychological distress in Spanish newsrooms. Likewise, interviews with journalists in Southern Europe have shown that prolonged exposure to global crises and deteriorating working conditions foster feelings of helplessness, emotional exhaustion, and decisions to migrate to less demanding assignments or to leave the profession (Papadopoulou et al., 2025).

More recently, the emergence of artificial intelligence in newsrooms has led to a significant increase in anxiety among journalists, driven primarily by fears of job displacement, loss of professional identity, and uncertainty in the face of rapid technological change. These factors contribute to a sustained state of psychological distress that affects both the performance and well-being of professionals (Liang & Dong, 2024; Upadhyay et al., 2024). Taken together, these findings suggest that anxiety in journalism is not an individual weakness, but rather a structural occupational phenomenon stemming from the interaction between technological acceleration, economic precariousness, and the emotional overload inherent in news work (Slavtcheva-Petkova et al., 2023).

The consequences of this work-related anxiety are multidimensional. From a physical perspective, it is associated with sleep disturbances, somatic symptoms, and prolonged cardiovascular arousal (Tornero-Aguilera et al., 2020). Emotionally, it coexists with depression, psychological distress, and, in contexts of violence, with traumatic symptoms (Šimunjak, 2022). From a behavioral standpoint, increased substance use, isolation, and presenteeism have been documented (Flores Morales et al., 2014; Shah et al., 2024). Motivationally, emotional exhaustion predicts the desire to leave the profession, with the consequent loss of talent (Bustamante-Granda et al., 2021). The magnitude of these effects is further modulated by organizational support systems and the working conditions of each context (Šimunjak & Menke, 2023). In this scenario, the COVID-19 crisis acted as a catalyst that highlighted the urgency of explicitly addressing these issues (Chinnasamy et al., 2024).

The literature has also documented specific effects on journalistic performance: exposure to acute stress causes cognitive and memory impairment that results in a significant decline in factual accuracy, while work overload leads to excessive reliance on official sources and reduces the depth of investigative reporting (Tornero-Aguilera et al., 2020; Chinnasamy et al., 2024). However, evidence on the direct effects of anxiety on the quality of journalistic work—accuracy, verification, analytical depth, or diversity of sources—remains comparatively scarce. This asymmetry reflects a broader disciplinary gap: while studies on news production have extensively analyzed structural factors such as political economy,

professional routines, or organizational pressures, they have rarely incorporated journalists' psychological states as explanatory variables for performance (Kotišová, 2019).

The gap is also methodological, though not in the sense of a simple predominance of one design over another. Research on journalists' mental health has been overwhelmingly organized around trauma and PTSD (Osmann et al., 2021; MacDonald et al., 2023), and within this body of work, anxiety has rarely been investigated as a phenomenon in its own right. It tends to appear as a secondary or supplementary measure—assessed through standardized scales such as the GAD-7 or the Beck Anxiety Inventory, or as a subscale of broader distress instruments—within studies whose primary focus lies in trauma exposure, moral injury, or burnout. These psychometric approaches allow prevalence and associations to be estimated, but they do not capture how journalists themselves conceptualize anxiety, interpret its causes, or describe its everyday effects. Tellingly, the scarce qualitative research on journalists' wellbeing has centered on trauma, disaster coverage, or coping rather than on anxiety as journalists understand and narrate it, leaving its subjective and interpretive dimension largely unexplored. Existing qualitative work nonetheless demonstrates the potential of in-depth interviews to reveal subjective meanings, coping strategies, and workplace narratives (Lamoureux, 2021; Šimunjak, 2022; Soto-Sanfiel & Salojärvi, 2024). The epistemological rationale is clear: only through the analysis of professional discourse is it possible to understand how the causes of anxiety are interpreted and how demands for organizational and sectoral change are articulated.

Given the structural vulnerability to anxiety that characterizes the journalism profession, the literature identifies a set of interventions aimed at reducing psychological distress in this population. At the individual level, mindfulness-based programs have shown significant reductions in anxiety among workers in various sectors, with varying effect sizes (Vonderlin et al., 2020), and self-compassion interventions[3] also contribute to improving work-related psychological well-being, although the evidence comes primarily from Western contexts and caregiving professions (Ferrari et al., 2019; Kotera & Van Gordon, 2021). In the specific field of journalism, prior training in trauma literacy—both in university and in newsrooms—strengthens adaptive coping mechanisms when exposed to disturbing content (Seely, 2020), while peer support is emerging as a promising strategy for mitigating the psychological impact of journalistic work, although empirical evidence in this field remains limited and requires cautious interpretation (Idås et al., 2019; McGregor et al., 2024). At the organizational and systemic levels, reducing workplace-specific stressors—facilitated by robust psychosocial safety climates and regulatory frameworks that protect workers—is a necessary condition for individual interventions to be effective (Dollard & Neser, 2013; Schulte et al., 2024). Taken together, the available evidence suggests that reducing anxiety among journalists requires multilevel approaches that integrate individual, organizational, and systemic interventions, recognizing that none of these is sufficient on its own.

On this basis, the present study starts from a central premise: work-related anxiety in journalism is not solely an individual phenomenon, but the result of governable structural configurations that emerge from the interaction between micro, meso, and macro levels (Slavtcheva-Petkova et al., 2023). This approach shifts the analysis from individualistic models toward structural models that recognize shared responsibilities among media organizations, professional associations, and regulators.

Recent research on precariousness in journalism supports this perspective by proposing multidimensional models that integrate objective conditions and subjective perceptions, showing that anxiety is embedded in structural and life-cycle factors rather than in simple individual traits (Rick & Hanitzsch, 2024). Yet, to our knowledge, no existing model offers an integrated approach to mitigating journalism-related professional anxiety.

This study addresses this gap in a particularly relevant context: that of Spanish newsrooms, whose working conditions are among the most precarious in Europe. According to the annual report of the Council of Europe Platform to Strengthen the Protection of Journalism and the Safety of Journalists (Council of Europe, 2026), Spain ranks alongside Croatia, Greece, Hungary, Malta, and Romania in the group of countries with "very poor and precarious working conditions," characterized by low wages and weak or nonexistent social security systems. This structural precariousness, combined with increasing digitalization and staff reductions, creates a context particularly conducive to the intense manifestation of the effects documented in the international literature.

The overall objective of the study is to develop an empirically grounded multilevel governance model that allows us to understand how protective factors and coping strategies operate in preventing, mitigating, managing, and reducing work-related anxiety among journalists within contemporary professional environments characterized by sustained structural pressure. To this end, three specific objectives are articulated:

1. SO1: To identify the protective factors against work-related anxiety that Spanish journalists themselves recognize and activate at the micro, meso, and macro levels, analyzing their interactions and contextual configurations;
2. SO2: To examine the coping strategies that journalists employ in their daily practice, as well as the advice and recommendations they offer based on their direct experience, to identify which mechanisms produce differential effects; and
3. SO3: To integrate the findings into a multilevel governance framework that allows for the derivation of structural implications for the sustainability of the journalistic profession.

The resulting analytical framework not only expands theoretical knowledge on well-being in high-stress professions but also offers a solid empirical basis for designing interventions at the individual, organizational, and sectoral levels aimed both at reducing the harmful effects of anxiety and at harnessing its facilitative potential, as we will elaborate on in the following section.

2. Theoretical and Empirical Foundations of a Model to Reduce Work-Related Anxiety in Journalists

Designing a multilevel governance model to reduce work-related anxiety in journalists requires answering two distinct questions, and this section is organized around them. First, *why* does anxiety in journalism distribute itself across the individual, organizational, and sectoral levels, and through which psychological mechanisms? Section 2.1 addresses this through the Theory of Workplace Anxiety (Cheng & McCarthy, 2018), which supplies both the explanatory logic for the micro–meso–macro structure and the design goal of the model: preserving the adaptive function of anxiety while neutralizing its destructive effects. Second, *how* can interventions of equivalent complexity be governed so that they actually work in resource-constrained, high-pressure settings? Section 2.2 answers this through three empirically tested multilevel frameworks—MESH, HCIF, and SEEGEN—each contributing a specific design principle: proportionality, auditable measurement, and modularity with implementation fidelity. The convergence of these two bodies of literature—an explanatory theory and a set of governance principles—is precisely what prior work has not yet integrated for journalism. This articulation maps directly onto our objectives: the theoretical framework informs how protective factors (SO1) and coping strategies (SO2) are interpreted across levels, while the intervention evidence guides their integration into a governed model (SO3).

2.1. Theoretical Framework: The Theory of Workplace Anxiety

The conceptual foundation of the model is the Theory of Workplace Anxiety (TWA) by Cheng and McCarthy (2018). This multilevel, multiprocess model distinguishes between two forms of anxiety: dispositional—a stable trait reflecting a tendency to experience nervousness, restlessness, and anticipatory tension regarding work—and situational—a transient state linked to specific work demands. In journalism, where chronic role pressures (job insecurity, hyperconnectivity, algorithmic metrics) coexist with acute triggers (unpredictable deadlines, trauma coverage, digital harassment), this distinction is crucial because it allows for differentiated intervention at each level of the model.

The TWA identifies three mediating processes that articulate the internal logic of the model we propose. Two of these represent debilitating pathways: emotional exhaustion, which progressively drains cognitive and motivational resources and erodes performance over time (the dispositional anxiety pathway), and cognitive interference, which redirects attention toward thoughts irrelevant to the task (the situational anxiety pathway). The third process, self-regulatory processing—in its reflective and automatic forms—constitutes the facilitating pathway: under moderate anxiety conditions and with sufficient resources, the journalist activates goal-monitoring and affective control strategies that can improve their performance (Cheng & McCarthy, 2018). This duality directly guides the design of our model: the goal is not to eliminate anxiety, but to create organizational conditions that preserve its adaptive function while mitigating its destructive effects.

The multilevel antecedents identified by TWA—job characteristics (emotional demands, autonomy, workload) and situational demands (time pressure, exposure to trauma, organizational demands)—explicitly justify the micro-meso-macro structure of our model: the micro level can influence emotional regulation and cognitive interference; the meso level on job demands and leadership; and the macro level on the structural conditions that fuel dispositional anxiety.

In sum, the TWA explains *why* a multilevel structure is necessary and *what* the intervention should aim for, but it does not specify *how* to govern coordinated actions across levels in practice—the question we turn to next.

2.2. Empirical Evidence for Multilevel Intervention Models

If the TWA provides the explanatory architecture, the literature on complex multilevel interventions provides the operational one. We draw on three frameworks, each selected because it resolves a specific governance problem the TWA leaves open.

The relevance of a multilevel approach is also supported by accumulated evidence on complex interventions in high-demand settings. In this case, we present three frameworks that make specific contributions to the design of our model.

The MESH framework (Matched Emotional Supports in Health Care; Price et al., 2021) organizes psychological supports into three-tiered levels with clear protocols for triage, escalation, and institutional sustainability. In newsrooms where exposure to stress is structural and resources are limited, MESH provides the model with a proportionality architecture that prevents both overtreatment and under-intervention, ensuring that each journalist receives the appropriate support at the right time.

The Human Coherence Intelligence Framework (HCIF; McCraty, 2025) integrates physiological—measured by heart rate variability (HRV)—cognitive, and organizational coherence into an auditable index. HRV biofeedback training[4] has been shown to improve psychophysiological recovery in high-pressure executives (Pruneti et al., 2024) and to reduce work-related stress and exhaustion symptoms in employees (Vagedes et al., 2025). Its incorporation as a micro-component of the model provides a brief, scalable, and objec-

tively measurable intervention that acts directly on the autonomic hyperarousal described in TWA.

The SEEGEN trial (Mulfinger et al., 2025), a cluster-randomized controlled trial across 18 German hospital units (N = 415), evaluated a package of five multilevel modules targeting senior management, middle management, and workers. Although it found no significant overall effects after 11 months, its process analysis demonstrated that insufficient levels of effective participation in the modules, implementation fidelity, and senior management commitment are critical mediators of success or failure. These lessons are directly applicable to journalism: our model must incorporate modularity—separately pilotable components—continuous monitoring of fidelity, and mandatory participation by editorial managers to ensure that interventions achieve the necessary level of exposure and commitment in contexts of high turnover and job insecurity.

Taken together, these two bodies of literature close the gap identified in the Introduction. The TWA establishes that journalism exposes professionals to dispositional and situational anxiety simultaneously and that mitigation depends on multilevel alignment; MESH, HCIF, and SEEGEN establish the conditions—proportional escalation, auditable physiological measurement, and modular delivery with monitored fidelity and managerial commitment—under which such alignment can be engineered rather than assumed. No prior work has combined the explanatory and the operational into an integrated model for journalism; doing so is the task of SO3, for which the protective factors (SO1) and coping strategies (SO2) elicited from journalists in the following sections provide the empirical substrate.

3. Materials and Methods

Our study employs an interpretive qualitative design using in-depth interviews, a technique particularly well- suited for exploring complex and sensitive subjective experiences (Taylor & Bogdan, 1990; Kvale, 1996). For the analysis, we followed Braun and Clarke's (2006) reflexive thematic analysis, aimed at generating rich and contextualized interpretive themes, with explicit attention to researcher reflexivity and methodological coherence (Braun & Clarke, 2024; Ahmed et al., 2025). This theoretically flexible approach allowed us to analyze both semantic and latent meanings without imposing a rigid epistemological framework. Following RTARG guidelines (Braun & Clarke, 2024), we acknowledge our researcher positionality. Although we did not know the participants personally, our academic backgrounds in communication and media research and our interest in journalism-related topics connect us to their professional environment via colleagues, practicing associate faculty, and former students. This insider proximity aided access and communication, balanced by deliberate distancing through analytical memos. Furthermore, to foster transparency and reflexivity, coding was conducted individually and reflexively. Aligned with reflexive thematic analysis, we prioritized documented interpretive coherence over realist inter-coder consistency, embracing the researcher as an active interpretive instrument.

3.1. Sampling Method and Participants

We employed a combined theoretical and snowball sampling method. For recruitment, we created a Google Forms questionnaire that we disseminated via LinkedIn, the *Almas Rotas* newsletter, and a network of over 150 personal contacts, with the additional support of six professional associations: Madrid Press Association, Association of Investigative Journalists (API), Parliamentary Press Association (APPA), National Association of Health Journalists (ANIS), Association of Court Reporters (ACIJUR), and The Self-Investigation. The sample also includes professionals in institutional and corporate communication, a

sector that now employs 40% of journalism professionals (APM [Asociación de la Prensa de Madrid], 2024). Their inclusion reflects the increasingly porous boundary between journalism and strategic communication and allows anxiety to be examined across the broader professional field rather than in newsrooms alone.

In the form, we explained the purpose of the study, guaranteed complete anonymity, and offered participants the option to select up to three of six conditions—chronic stress, post-traumatic stress, burnout, anxiety, depression, and compassion fatigue—each accompanied by a technical definition.

Ethical approval for this study was not required in accordance with Spanish national legislation. However, all participants were provided with comprehensive information regarding the study objectives, audio recording, data anonymization, and their right to withdraw at any time and informed consent was obtained from each participant prior to the interview. Of the 116 responses we received, anxiety was reported by 60.3% of the volunteers. The authors contacted the volunteers via the provided email addresses to schedule the interviews.

Due to space constraints, we present here only the results related to this condition, for which we conducted 23 interviews, at which point new data ceased to reveal previously unidentified patterns. The sample exhibits diversity in terms of gender—a slight majority of women—age—predominantly in the 45–55 age group—media type, and coverage; 52.2% of participants had a clinical diagnosis of an anxiety disorder. Table 1 summarizes the profile of the respondents.

Table 1. List of Respondents Interviewed.

ID	Sex	Age	Media	Grade	Section	Position	Diagnosis [1]
P1	Female	49	Newspaper and Radio	National	Health	Editor	Yes
P2	Male	53	Newspaper	National	Health	Editor	Yes
P3	Female	32	Digital media	National	Verification	Editor-in-Chief	Yes
P4	Male	33	Newspaper	National	Sports	Editor/ Special Correspondent	No
P5	Female	48	Television	Regional/ Regional	News	Anchor and Reporter	Yes
P6	Female	26	Institutional communication	National/ local	Nonprofit Sector	Editor	No
P7	Female	36	Digital media	National	Verification	Section Head	No
P8	Male	52	Newspaper	National/ International	Investigative journalism	Investigative journalist	Yes
P9	Female	61	Magazine	National	Fashion, society, women	Deputy Editor	No
P10	Male	47	News agency	National	News	Section Chief	No
P11	Female	37	News agency	National	Reputation/ Crisis Communication	Crisis consultant	No
P12	Male	40	Digital media	National	Courts/ investigation	Section Chief	Yes
P13	Male	24	Digital media	National	Health	Editor	No

Table 1. *Cont.*

ID	Sex	Age	Media	Grade	Section	Position	Diagnosis [1]
P14	Female	25	Newspaper	Regional/ Regional	News	Editor	No
P15	Female	65	Television	National/ International	Politics/ International	Special Correspondent	No
P16	Female	49	Newspaper and Television	Regional/ Regional	News	Graphic Editor	Yes
P17	Male	52	Newspaper	National	Sports	Editor	No
P18	Male	47	Institutional Communication	National	Reputational/ Crisis	Copywriter	No
P19	Female	57	Institutional Communication	Regional/ Regional	Health	Director of Communications	Yes
P20	Female	31	Newspaper	National	Economy/ Markets	Editor	Yes
P21	Female	44	Television	Local	News	Reporter	Yes
P22	Female	41	Institutional Communication	National	Nonprofit Sector	Communicator	Yes
P23	Female	46	Institutional Communication	Local/ Regional	Health	Director of Communications	Yes

Source: Prepared by the authors. [1] Although the clinical diagnosis status of the informants was recorded at a descriptive level to characterize the sample (Table 1), this condition was not employed as a comparative variable during the thematic analysis. The analysis of the narratives revealed that the presence or absence of an official diagnosis did not establish significant variations in the lived experience of organizational stressors (Meso Level) nor in the severity of the reported symptomatology (Micro Level). Consequently, the lack of a clinical diagnosis in a portion of the sample was analytically interpreted not as an absence of distress, but rather as an empirical manifestation of the structural and cultural barriers to seeking help within the journalism sector (e.g., stigma, normalization of burnout, and precariousness).

3.2. Sample Collection

We conducted the 23 interviews online via Google Meet between 15 October 2025, and 19 February 2026, with an average duration of 65 min. We developed the interview guide following the sequence proposed by Kvale (1996) and the recommendations for sensitive interviews by Hernández Sampieri et al. (2014) and Hernández Sampieri and Mendoza Torres (2018). We structured it into five thematic blocks: opening, impact of anxiety on quality of life and work quality, risk factors, protective factors, and coping strategies. Although the same semi-structured guide was followed throughout all interviews, it was tailored to each participant after reviewing their professional activity on LinkedIn, prioritizing the open exploration of their diverse experiences and accounting for the distinction between participants with and without a clinical diagnosis. In line with the study's objectives, we focused the analysis exclusively on responses regarding how to reduce anxiety: (i) protective factors at the micro, meso, and macro levels; (ii) coping strategies at those same levels; and (iii) advice and recommendations that journalists offer based on their own experience.

At the beginning of each interview, participants were -once more- informed that the session would be recorded strictly for transcription and analysis alongside other testimonies to identify response patterns, explicitly stating that all material and content derived from these interviews would be used exclusively for academic purposes and would be fully anonymized, removing the journalists' names and their respective media outlets, as well as omitting any obvious references to their professional profiles that could lead to their identification. After obtaining informed consent, we recorded the interviews in audio and video. We processed the automatic transcription generated by Google Meet using the Gemini artificial intelligence tool to remove filler words and improve the fluency of the

speech. Finally, before proceeding with the analysis, we manually reviewed and validated all final transcripts to ensure complete accuracy of the content.

3.3. Data Analysis

To analyze the data, we followed the six phases established by Braun and Clarke (2006), verified against the 16-item checklist by Ahmed et al. (2025) and the Reflexive Thematic Analysis Reporting Guidelines (RTARG) (Braun & Clarke, 2024). In Phase 1 (familiarization), we read the complete transcripts in several rounds, noting initial impressions, recurring patterns, and contradictions. This allowed us to capture both the semantic content and latent meanings before beginning coding. In Phase 2, we generated descriptive and interpretive codes that we refined iteratively based on each transcript. In phases 3 through 5, we grouped the codes into candidate themes using manual thematic maps, which we reviewed by comparing them with both the coded excerpts and the full corpus, assessing their internal homogeneity and external heterogeneity. The process—recursive and reflective—allowed us to group, disaggregate, or discard themes until we achieved a coherent structure. For each final theme, we developed a precise definition and a name that captured its interpretive essence. After the 18th interview, we reached theoretical saturation (Glaser & Strauss, 1967); the remaining five interviews were conducted to confirm this finding and to complete and enrich our sample with a range of different professional profiles. In Phase 6, we presented the results as an interpretive narrative, seeking to weave the analytical narrative with verbatim excerpts that illustrated the various findings.

4. Results

4.1. Protective Factors

The thematic analysis of the 23 interviews reveals that protective factors unfold across three interconnected levels: micro, meso, and macro. For conceptual purposes, it is important to clarify that we define a protective factor as a preexisting condition—a resource, a circumstance, or a stable trait—that reduces the likelihood of anxiety emerging or becoming chronic, and that operates regardless of whether the professional is currently experiencing an active episode of distress. It is thus distinguished from coping strategies—the subject of the following section—which are activated precisely in response to anxiety that is already present. When the three levels align, these configurations form a multilevel shield that multiplies their protective power; when they become misaligned, they leave the professional exposed to what P18 defines as the vocational "trap" characteristic of journalism: that passion that ultimately engulfs one's identity. In the words of P11, "we have become so immersed in the romantic notion that the journalist is a 24/7 worker that we have swallowed it hook, line, and sinker." The findings are presented organized by level and, within each level, according to their discursive relevance.

At the micro level, the analysis identifies four protective factors. The first and most common is the cultivation of a solid non-professional identity. In the face of anxiety, journalists find refuge in their families, partners, outside friendships, and hobbies. P10 states that his "first line of defense is family." P11 describes how he copes by noting that "reading has been a lifelong refuge," combined with his "sports" routines and unwinding at home. P3 illustrates the importance of grounding oneself in a reality outside of journalism: "My current partner is outside [the profession], and that's the only thing that saves me, because if you don't get home and you're still in the loop, you never get out of it."

The second protective factor is ongoing therapy, which participants describe not as a reaction to a specific crisis, but as a consistent practice that allows them to identify early signs of anxiety before they become chronic. The ability to ask for help without

feeling ashamed is seen as an act of courage in a competitive and stigmatized industry. P1, who physically collapsed due to a combination of marathon workdays and abusive leadership, states that her "main protective factor was knowing how to ask for help," and acknowledges that the whirlwind of daily life creates a "loop" of rumination that blinds you, making external intervention vital when "you're not able to ask for help because you don't even realize you have a problem." P13 explains that the psychologist has helped him engage in self-dialogue and ask himself: "What's the worst that could happen? [. . .] They'll give me a bit of a scolding if I don't come in first, but it's not the end of the world." P20 recounts that as a result of therapy, "I've realized I've always had anxiety, I just didn't identify it as such," accustomed by her profession to "playing out a hundred scenarios in my head, getting stuck in loops."

The third approach is intentional digital disconnection and assertiveness in setting boundaries—vital in a media ecosystem defined by hyperconnectivity. P12, who interrupted his paternity leave—neglecting his one-month-old baby—for the adrenaline rush of covering a corruption scoop, confesses that if he could go back, "I would give up thousands of news stories or scoops for having known how to say 'I'm done at 7.'" P3, after overcoming a phase where alcohol was her escape from the pressure of digital deadlines, puts her phone "in airplane mode every day starting at a certain time" and accepts that no WhatsApp message will keep her from being with his son. P23, after years of missing her son blowing out his birthday candles due to last-minute calls, refused to install the messaging app on her new company phone and warned her superiors: "This is the phone I'm going to carry, and at 3 p.m. I turn it off, and that's it."

The fourth factor is taking care of physical health—restful sleep, nutrition, and, above all, regular exercise—as a direct physiological regulator against the grueling dynamics of newsrooms. P1 advocates relying on the "triad of diet, sleep/rest, and physical exercise." P12, after years of dedicating between twelve and fifteen hours a day to investigative journalism until he ended up hospitalized, confirms the result of radically changing his priorities: "Now I sleep well, eat well, work out four days a week, and I'm a happy person." Exercise emerges in particular as an anchor against hyperconnectivity: P14 describes the gym as something that "resets you; you get home, take a shower, have dinner, and it's like, 'Okay, I'm ready to start another day'"; P4 finds refuge in cycling and says that his "2- or 3-h rides" allow him to "really disconnect. (. . .) Out there, I don't overthink things, and I'm calm and relaxed"; and P8 emphasizes that "it doesn't necessarily have to be at a gym—it's enough just to get some physical exercise, even if it's just walking."

At the meso level, the analysis identifies four other protective factors. The first is contractual stability and career prospects, which serve as the primary psychological safety net against the structural uncertainty of the profession. P5, after stringing together "illegal artistic contracts" for decades at a public television station—a precarious situation that forced her to dismantle her life plans and postpone her desire to become a mother—now celebrates "the peace of mind of having a permanent position after 26 years." P3, who acknowledges having been "very lucky [. . .] because I've always been given open-ended contracts. I've never had that sense of precariousness that other media outlets have," knows she is privileged compared to the industry norm. P18 sums up the difference between the anxiety of freelancing and the peace of mind that comes from knowing "that on the 29th or 30th, I'd get that paycheck no matter what."

The second factor is confident and empathetic editorial leadership, a catalyst that multiplies the effectiveness of micro-resources. P14 recounts the relief of being honest with her boss about her inability to get everything done and that, instead of reprimanding her, he asked her to slow down, reminding her that "we don't have to take our problems home and that mental health is the most important thing for everyone." P17 contrasts the

"tyrannical leadership" of the past—where mistakes were punished with "public ridicule or shouting in the middle of the newsroom"—with the current climate, "more constructive and humane," in which mistakes "are analyzed to improve" and "allow you to work with greater peace of mind." P21, a rural television correspondent and a separated mother with joint custody, values the peace of mind that comes from having a manager who, in the face of family emergencies, always responds with "no problem." P6 notes that, after the demanding pace of fact-checking, she appreciates that her boss texts her to ask if she's okay because she's seen her looking "a little tired."

The third factor is social support from peers, an organizational buffer that is mentioned repeatedly in the vast majority of accounts. P1, after surviving a workplace where the boss could spend "10 h yelling nonstop," creating a "pressure cooker" atmosphere, emphasizes that camaraderie was her lifeline: "the fact that we got along well with each other [. . .] I think that saved me a lot, too, or protected me." P10, after enduring hostile leadership that sought to destabilize him, emphasizes the value of "venting to each other to make sure that, in the end, it wasn't your fault." P14 values "the simple fact of going out for a few beers with my coworkers after a stressful time" because, since we're in the same boat, "they listen to you."

The fourth meso-level factor is explicit recognition of work, which directly protects the professional's self-esteem. P4 laments that "success is kind of taken for granted and not valued [. . .] However, when you make even the slightest mistake, everything is scrutinized and magnified." P21 finds it helpful to receive a simple "good job, you did great" after high-stress assignments—such as "a fire coverage" that is "extremely painful"—because "it gives you confidence and makes you feel fulfilled." P13 notes that continuous recognition in his newsroom provides him with enough psychological security to handle negative feedback without triggering anxiety.

From a macro perspective, the analysis identifies four other protective frameworks, with the distinction that at this level—unlike what occurred in the other two—discourses are almost always articulated from a position of lack or from a perceived ideal, which underscores the structural weakness of the ecosystem. The first is a combative network of associations and unions that denounce abuses and negotiate agreements regulating schedules, workloads, and salaries. P11 laments that "the sector has not been able to assert itself in the labor market." P7 calls for a professional association "where you could report" abuses. P12 states that if there were an association offering direct psychological support, "I'd be the first to join, gladly." In the current reality, P3 recalls having created the works council and having "fought hard for that to change"; P5 values that being "unionized" helped her not to feel alone or give up; however, the press collective agreement remains, in the words of P3 herself, "hell."

The second macro-level factor is specific university training in emotional management and the psychosocial risks inherent to journalism, which, as P15 laments, is conspicuously absent. The third is sufficient staffing in newsrooms. P4 complains that "there are too many petty bosses and deputy directors [. . .] and that we need more editors, since we're the ones getting the work done day in and day out." The fourth is the regulation of institutional practices that prevent journalists from disconnecting. P3 states that "it doesn't seem logical to me that Congress is voting on an amendment at 1 a.m.," thereby undermining the journalist's health. In the absence of these macro conditions, even those who enjoy micro and meso resources operate under a chronic structural threat that no individual shield can neutralize on its own.

4.2. Coping Strategies

Unlike protective factors—pre-existing conditions that mitigate the onset or chronicity of anxiety—coping strategies are deliberate responses that the professional activates once anxiety has already manifested. They constitute, therefore, the reactive repertoire with which the journalist attempts to regain psychological balance in the face of pressure that has already overwhelmed them. At the micro level, this repertoire is organized into three categories: problem-focused strategies, emotion-regulation strategies, and strategies for seeking social support. None is mutually exclusive; most interviewees combine several depending on the type and intensity of the pressure.

Problem-focused strategies operate as deliberate tactical actions to curb overstimulation and regain control over one's own behavior when anxiety becomes overwhelming. The most common is the intentional management of cognitive load and availability: P23, after suffering a "micro-anxiety attack" upon receiving work notifications while with her family, reacted by radically separating his phones, declaring that "if I go to Cáceres for the weekend, the world can fall apart, that's on the other phone; don't bother me anymore." P6, faced with the simultaneous "bombardment" from messaging platforms, executes a "detox process" by activating do-not-disturb mode: "At 6 p.m. I leave and I disconnect—the world can fall apart." Closely linked to this management of availability, the ritualization of disconnection and the regulation of one's own news consumption act as a firewall against the overactivation of the alert system. P19 imposes restrictive guidelines to isolate rumination: "After a certain time, I don't open social media. On the weekend, I don't use social media [. . .] My family doesn't deserve this." P17 applies this same logic to public exposure, establishing as a rule regarding the publication of their articles that "I don't look at anything [. . .] during the times when I might be at my busiest."

Actively setting boundaries against external demands serves as a second strategy. Faced with extreme exhaustion from grueling investigations, P8 had to put the brakes on in front of their own team: "I spoke with my colleagues and told them, 'Look, I just can't do this.'" When vulnerability collides with intense current events, actively selecting the type and volume of coverage acts as an emotional lifeline: P11, aware of the harm caused by hard-hitting news, proactively delegates coverage by asking their team, "This topic is personally very sensitive to me. If someone else could handle it. . .". In the digital environment, documenting and reporting online harassment without silently absorbing it completes this section: P4 takes tactical measures against the impunity of *haters* in the sports press: "I've reported a ton of comments to get certain users blocked because, since it's always the same people, they're very easy to identify."

Strategies focused on emotional regulation aim to modulate physiological and cognitive arousal when anxiety has already overwhelmed the professional. The most common is cognitive restructuring: the analysis and questioning of automatic thoughts in the face of pressure. P23 curbs her anxiety by putting the impact of her work into perspective, telling herself, "We're not at CERN in Geneva identifying the particle that created the universe." P21 combats anxiety flare-ups by creating distance from the critical moment: "I really try to remind myself: 'This is going to pass; this anxiety you're feeling right now isn't that big of a deal.'" These cognitive techniques are complemented by direct physical interventions: from breathing exercises (P8) to stretching "here on the mat [. . .] and coming back to the body a little" (P1). P18 explains that to survive the stress, he took up paddle tennis again and "get-togethers with friends with my phone in my pocket".

Strategies for seeking social support emerge as the most universal coping mechanism once the journalist has already been broken by the pressure. At a basic level, seeking psychological therapy and emergency medication serves as a last-resort safety net. P12, consumed by self-imposed demands and workaholism, recounts how the onset of a panic

attack forced him to hit the brakes hard: "I decided to take a significant break and undergo medical treatment, even checking into a clinic, because that was when I realized, no, this was a path, an unsustainable situation." P23, overwhelmed and paralyzed after suffering harassment in an institutional office, hit the emergency brake by seeking urgent psychological help: "I spoke with a psychologist at the hospital, and she told me, 'Don't go on, they're bullying you. . . You have to rest, you have to stop.' And I stopped."

A second strategy of this kind involves emotional venting with peers who share the same context, which acts as an indispensable outlet. P6, faced with a lack of support in hostile newsrooms, created a safe space: "We created a group to bring together several journalists so we could build connections and networks, meet in person once a month, and have this group to share contacts or complaints." P9 meets with her journalist friends every Monday: "One day it's one person's turn to cry, the next day another's, and the day after that we're all laughing." Support outside of work from partners outside the profession also acts as a reactive lifeline: P4 turns to his wife as an anchor, because "what works best is talking to my wife [. . .] the person who understands me best, and I vent to her." P19 recounts how, after arriving home overwhelmed by the political agenda, her husband would force her to stop: "'Come on, that's it, we're going out, we're going for a walk.'"

At the meso level, organizational coping strategies either do not exist or are still in their infancy. Journalists describe an ecosystem that externalizes the management of distress onto the individual and ignores structural responsibility. P1 denounces the hypocrisy of companies that offer superficial fixes without addressing the toxicity of the workflow: "I'll give you that, the mindfulness course, the little emotional management class [. . .] but I won't make any structural changes in the company [. . .] because if you're then sending me WhatsApp messages at 9:30 p.m., well, it's of no use to me," and calls for direct action, urging that "managers and those in positions of responsibility be trained to detect [. . .] that 'something's wrong here' moment," before the workforce falls ill. In the rare cases where reactive tools exist—psychological support programs or anonymous reporting channels—their effectiveness is undermined by institutional mistrust. P10 appreciates that his company has "a program [. . .] for psychological support [. . .] where you have a phone number you can call at any time"; P4 mentions a "communication platform" for anonymously reporting irregularities. However, P17 points out that in his workplace, "almost none of us have used it [. . .] for fear that if it's something the company offers, it won't be anonymous" and that "suddenly the psychologist might be friends with the director."

The major shortcomings are the lack of gradual return-to-work programs following leave due to anxiety and the absence of protocols for managing online harassment. P23 experienced institutional neglect upon returning to work when the mutual insurance company's psychologist forced her to return without an adjustment period, which she felt was a punishment for "sending me back into the lion's den." P12, after requesting to return to work with different duties following four months of sick leave and an admission to a mental health clinic, had his diagnosis dismissed by their director. Regarding digital harassment, P4 reports that they have "zero protection" and that the company ignores the problem even though "I've reported a ton of comments [. . .] and with total impunity."

From a sectoral perspective, macro-level coping strategies are virtually nonexistent in practice and amount to little more than isolated individual initiatives in the face of immense systemic shortcomings. P16 recounts how structural stress drove her to found a union in an attempt to organize against precarious working conditions. The professionals themselves bear the burden of bringing their distress to light: some organized the first debate held in Spain on journalism and mental health; P18 channels his frustration by publishing texts to raise professional awareness for a professional association; P12, following his painful hospitalization, participates in this study as a direct response to his own suffering: "If I

can help ensure that people still in the profession can somehow read my testimony, [then] I believe that is the best way to help." P17 shares that it "would be very important to me that future generations not suffer this." P8 celebrates that organizations like the APM are already "including the topic of mental health in their yearbook, which is already a step forward." In the rest of the macro areas—industry lobbying or the regulation of metrics as a tool for labor pressure—inaction is absolute. P9 laments that "we are a sector that is very unprotected in terms of schedules, workloads, salaries, and quality of work." Without the urgent development of macro-level programs and institutions to support micro- and meso-level efforts, the media ecosystem will continue to operate as "a people-crushing machine" (P1 and P8).

4.3. Advice and Recommendations

The list of recommendations drawn from the corpus underscores the urgency of intervening simultaneously at all three levels of the model. The premise underpinning it is shared by most interviewees: the micro-level shield is insufficient if not supported by the corporate and sectoral ecosystem. The case of P8 is highly illustrative: despite knowing and applying all the tools for individual protection—exercise, digital disconnection, breathing techniques—he suffered a severe breakdown because the extreme pressure of international investigations is "a river that carries you away." P19, although she has developed solid personal coping mechanisms, acknowledges that this is not sustainable on a large scale: as long as the sector maintains precarious contracts, low wages, and grueling workdays, journalists will continue to go to work on anti-anxiety medication or will eventually leave the profession. The interviewees' advice therefore points toward a structural transformation aimed at treating the well-being of the newsroom as a prerequisite for journalistic quality, not as an afterthought of corporate management.

At a micro level, veteran journalists direct their warnings to the younger generations and to their past selves. The most universal piece of advice is to dismantle, from day one, the vocational trap that normalizes the sacrifice of one's identity. P11 advises students directly: "Don't idealize the profession so much," urging them to work honestly but to look out for themselves more. P12 recommends always seeking balance and being aware that journalism "cannot be the most important thing in your life." P6 advises putting everyday mistakes into perspective and not fretting over a typo, and recommends being more selective so as not to overload oneself with excessive contributions.

The pedagogy of "no" emerges as the second practical requirement. P15 insists that the most important lesson is to "learn to say no" and to set limits before becoming overwhelmed becomes inevitable. P14 recommends leaving the workload at the office, assuming that if a task isn't urgent, "it can wait until tomorrow."

Seeking mentors and asking for help early on is established as the third key piece of advice. P5 warns young people that they must "surround themselves with and learn from more experienced journalists" so as not to normalize abusive practices early on. P10 recommends clearly letting others know when you can't get everything done and not becoming a "workaholic." P21 adds a collective dimension: mutual care among colleagues should not depend on individual initiative, but in practice, it is relegated to just that. She herself maintains a support routine with a colleague to whom she writes every month simply to ask, "How are you doing?", and warns of the danger of not looking out for one another: "It's a shame because [. . .] I don't know if another colleague of mine might be worse off than I am or in a different situation, and you don't notice it." To address this lack of mutual support, she proposes that professional associations organize spaces where journalists can "share the common experiences we have with one another in a more accessible and intimate way."

At the meso level, the recommendations point to three specific transformations. The first is to humanize management structures. P12 demands that companies train their management teams to have empathy and "know how to gauge" how far they can push the staff. P8 issues a direct demand to Human Resources departments: they must abandon bureaucracy, go down to the newsroom, and approach the overworked reporter to ask, "Hey, how are you? I've seen that you've published 115 pieces in the last three months [. . .] You must be really tired." P3 advises fostering "a dialogue between the company and the workers [. . .] it is the only way for workers to feel like they are part of something."

The second transformation involves a real operational restructuring: P17 suggests better organizing shifts so that the same journalists aren't always on call; P4 proposes hiring an in-house psychologist to address urgent emotional needs, just as there's a technician for when a computer breaks down.

The third is to ensure psychological support upon returning to work after a leave of absence. P13 demands that companies offer real training on stress management led by professionals, "because sometimes we're treated like robots." As P9 sums up, the best advice for the leadership of any media outlet is not to forget that they are managing human beings: "Those responsible for ensuring you live well should care about you and treat you as a person and as a professional."

From a macro perspective, the demands address the rules of the game for the industry as a whole. P3 calls for collective reflection to curb toxic competition for clicks and offers direct advice to politicians to rationalize the schedules of public and institutional life: "It doesn't make sense to me that a ministry would hold a press conference at 10 p.m." P7 calls for the creation of a professional association with real power where abusive wages and working conditions can be reported. P15 demands that universities take on the emotional preparation of students in the classroom and warn them about the psychological impact the profession will have, so that they arrive "more whole" at newsrooms. Without these macro-level transformations, individual and organizational efforts will remain, at best, Band-Aids on a structural wound.

4.4. Designing a Multilevel Governance Model

The third specific objective requires integrating the findings from the 23 interviews into a multilevel governance framework that clearly distinguishes between the micro, meso, and macro levels and derives structural implications for the sustainability of the journalistic profession. The resulting model—which we have named the Multilevel Governance Model for the Reduction of Work-Related Anxiety in Journalists (MMG-RALP)—addresses this requirement from a dual foundation: Cheng and McCarthy's (2018) Theory of Work-Related Anxiety as an explanatory framework for the psychological mechanisms involved, and the accumulated evidence from equivalent complex interventions—MESH, HCIF, and SEEGEN—as a guide for the governed design of actions.

The TWA allows us to understand why anxiety in journalism operates simultaneously as a chronic trait—dispositional anxiety, fueled by contractual precariousness, permanent hyperconnectivity, and vocational romanticism that engulfs personal identity—and as an episodic state, situational anxiety, triggered by unpredictable deadlines, traumatic coverage, and occasional digital harassment. This distinction is not merely conceptual: it directly informs every level of the model, as Spanish journalism exposes its professionals to both forms simultaneously and continuously. The three mediating processes of the TWA articulate the internal logic of the MMG-RALP. Emotional exhaustion emerges in the discourse as the cumulative effect of three sustained pressures: toxic institutional immediacy, algorithmic metrics, and the inability to disconnect. It functions as the pathway through which dispositional anxiety (a personality trait) chronically wears down

the journalist. Cognitive interference, meanwhile, emerges in connection with specific high-pressure situations: high-impact coverage, the constant threat of magnified errors, and online harassment. It operates as the mechanism through which situational anxiety (state) impairs performance at specific moments. In the face of both, self-regulatory processing—the facilitative aspect of anxiety—is activated when journalists have protective resources: an identity that extends beyond the professional sphere, genuine editorial support, or effective opportunities for rest. The model does not seek to eliminate anxiety: it seeks to create conditions that preserve its adaptive function and neutralize its destructive effects, as prescribed by TWA and confirmed by the interviewees when they distinguish between the tension that "gets you going" and the tension that "breaks you."

At the micro level, journalists build their personal resilience through four pre-existing protective mechanisms that directly influence TWA: their non-professional identity, which reduces the cognitive interference caused by the all-encompassing nature of 24/7 work; sustained therapy, which strengthens reflective self-regulatory processing and enables the detection of early signs of exhaustion; intentional digital disconnection and assertiveness in setting boundaries, which counteract constant autonomic arousal; and physical self-care—nutrition, sleep, and exercise—which moderates the cardiovascular reactivity associated with continuous exposure to violence and metrics. When these resources are overwhelmed, journalists deploy reactive strategies organized into three categories: problem-focused—managing availability, setting boundaries, selecting coverage, reporting online harassment—; focused on emotional regulation—cognitive restructuring and direct bodily interventions—; and seeking social support, ranging from emergency clinical care to emotional venting with peers. The HCIF's proposal to incorporate heart rate variability (HRV) biofeedback training as a brief, scalable, and objectively auditable tool offers a concrete complement here: in high-demand populations, this training reduces symptoms and improves indicators of physiological coherence—SDNN (Standard Deviation of NN intervals), RMSSD (Root Mean Square of Successive Differences)—that directly address the autonomic hyperarousal described in the TWA. The MESH architecture adds the necessary logic of proportionality: universal resources—digital psychoeducation, self-regulation guides—must be activated before scaling up to more intensive levels.

At the meso level, newsrooms build their institutional safety net through four configurations that interviewees urgently demand: contractual stability and long-term career prospects, which combat dispositional anxiety at its structural root; empathic and psychologically secure editorial leadership, which disrupts the "grinding machine" culture that amplifies both emotional exhaustion and cognitive interference; horizontal social support among peers, which activates reflective self-regulatory processing in the face of episodic pressures; and explicit recognition of work performed, which counteracts the normalization of invisible success. The lessons from the SEEGEN trial (Mulfinger et al., 2025) are decisive here: the model must incorporate modularity—separately pilotable protocols, starting with those for leadership and psychological support—a minimum number of sessions that each participant must complete, with protected work time to attend them, continuous monitoring of implementation fidelity, and mandatory participation by editorial managers. SEEGEN's failure to achieve overall effects is explained precisely by the absence of these governance conditions; their presence is, therefore, a necessary—though not sufficient—condition of our model. The moderators of the TWA—motivation, skill, and emotional intelligence—indicate that meso-level leadership must activate these individual resources, not take them for granted.

At the macro level, Spanish journalists point to a structural deficiency that no micro- or meso-level intervention can compensate for on its own. There are four demands: a strong network of associations and unions that expose abuses and negotiate agreements

regulating work schedules, workloads, and salaries; mandatory university-level training in emotional management and the psychosocial risks specific to journalism; sufficient staffing in newsrooms to allow for the redistribution of work and effective time off; and regulation of institutional practices that prevent journalists from disconnecting—such as parliamentary sessions or late-night press conferences. This level directly impacts the underlying causes of dispositional anxiety in TWA: without it, even those with micro and meso resources operate under a chronic structural threat that no individual shield can neutralize on its own.

The power of our model lies in its interactions. Meso stability multiplies the effect of micro resources; without it, even therapy is practiced under the pressure of precariousness. Empathetic leadership makes macro demands viable and enhances peer support. Extraprofessional identity is sustained only when the meso level offers flexibility and the macro level protects personal time. When the three levels align—with the governance principles provided by MESH (scaled proportionality), HCIF (auditable physiological measurement), and SEEGEN (managerial commitment to fidelity and minimal dosage)—the shield proves solid against the specific demands of Spanish journalism. When they become misaligned, the emergence of destructive anxiety is only a matter of time.

Before the Discussion, Table 2 summarises the complete architecture of the MMG-RALP, juxtaposing the three levels (micro, meso, and macro) with their protective factors, coping strategies, and advice and recommendations, together with the TWA mechanism each addresses and the governance principle that operationalises it.

Table 2. The Multilevel Governance Model for the Reduction inof Work-Related Anxiety in Journalists (MMG-RALP).

	MICRO—Individual	**MESO—Organisational (Newsroom)**	**MACRO—Sectoral**
Protective factors (pre-existing resources)	• Solid non-professional identity (family, partner, friends, hobbies) • Sustained therapy (early detection) • Intentional digital disconnection and assertive boundary-setting • Physical self-care: sleep, nutrition, exercise	• Contractual stability and career prospects • Empathic, psychologically safe editorial leadership • Horizontal social support among peers • Explicit recognition of work	• Combative network of associations and unions • University training in emotional management and psychosocial risk • Sufficient newsroom staffing • Regulation of practices that impede disconnection
Coping strategies (reactive responses)	• Problem-focused: managing availability, regulating news consumption, setting boundaries, selecting/delegating coverage, reporting harassment • Emotion regulation: cognitive restructuring, bodily interventions (breathing, stretching) • Social support: clinical care and emergency medication, peer venting, support from partners outside the profession	• Largely absent or nascent; distress externalised onto the individual • Existing tools (support programmes, anonymous channels) eroded by institutional mistrust • No graduated return-to-work; no online-harassment protocols	• Virtually nonexistent in practice • Isolated individual initiatives (founding unions, first mental-health debates, awareness-raising publications) • Inaction on lobbying and metric regulation

Table 2. *Cont.*

	MICRO—Individual	MESO—Organisational (Newsroom)	MACRO—Sectoral
Advice and& recommendations (prospective/structural)	• Dismantle the vocational "trap"; de-idealise the profession • Practise the "pedagogy of no"; set limits, leave work at the office • Seek mentors and ask for help early; avoid workaholism • Sustain mutual peer check-ins	• Humanise management; train leaders in empathy; HR presence in the newsroom • Operational restructuring: rotate on-call shifts, in-house psychologist • Guaranteed psychological support upon return to work • Professional-led stress-management training; treat staff as people	• Curb toxic competition for clicks • Rationalise institutional/political schedules (no late-night press events) • Create empowered professional associations to report abuses • Embed emotional preparation in university curricula
TWA mechanism addressed	Reduces cognitive interference and autonomic/cardiovascular arousal; strengthens reflective self-regulatory processing	Combats dispositional anxiety at its structural root; disrupts the exhaustion-and-interference culture; activates self-regulation (moderators: motivation, skill, emotional intelligence)	Targets the structural drivers of dispositional anxiety that no individual shield can neutralise alone
Governance principle (evidence baseevidence-based)	HCIF—HRV biofeedback (brief, scalable, auditable) MESH—proportional escalation (universal resources activated first)	SEEGEN—modularity, minimum dose with protected work time, fidelity monitoring, mandatory editorial-manager participation	Enabling condition that makes micro- and meso-level interventions viable

Note: TWA = Theory of Workplace Anxiety (Cheng & McCarthy, 2018); HRV = heart rate variability. MESH, HCIF, and SEEGEN are the three multilevel intervention frameworks discussed in Section 2.2. Source: prepared by the authors.

5. Discussion

The findings of this study allow us to formulate a thesis of structural scope: work-related anxiety in Spanish journalism is not a deficit in individual resilience but the predictable product of governable institutional configurations. This interpretation, which previous literature had scarcely systematized, emerges consistently from the 23 interviews and is articulated precisely through the three levels of our model.

The most revealing pattern does not lie in any isolated protective factor or in any particular coping strategy, but rather in their multilevel interdependence. The journalists who best manage anxiety are not those who accumulate the most micro-resources—whether pre-existing conditions such as extra-professional identity or ongoing therapy, or reactive responses focused on problem-solving, emotional regulation, or social support—but rather those who operate in environments where the meso-level supports them and the macro-level makes them possible. This dynamic replicates and extends to journalism the logic of multilevel alignment that TWA identifies as a condition for the anxiety-facilitating function (Cheng & McCarthy, 2018): P12's extraprofessional identity or P1's therapy only produce sustained effects when the organization offers stability and the sector recognizes psychosocial risk as structural. In the absence of these conditions, micro-level resources function as emergency valves; useful, but incapable of containing unrelenting systemic pressure. This asymmetry between the density of the micro-level and the precariousness of the meso- and macro-levels constitutes the study's most significant finding and our main contribution to the field. This pattern converges with Herrero-Jiménez et al. (2025), who likewise identified the meso level—routines and workloads—as the strongest predictor of stress among Spanish journalists, lending external support to the centrality of the organizational level in our model.

The data also validate the suitability of TWA as an explanatory framework: the dual distinction between dispositional and situational anxiety accurately captures the experience of journalists simultaneously subjected to chronic structural pressure—precariousness, hyperconnectivity, algorithmic metrics—and acute episodic triggers—traumatic coverage, digital harassment, unpredictable deadlines. Without this framework, the results would risk being reduced to a list of best practices; with it, they acquire prescriptive value for the design of differentiated interventions at each level. The lessons from SEEGEN, MESH, and HCIF—modularity, staggered proportionality, auditable physiological monitoring, and mandatory management commitment—operate here not as add-ons, but as governance conditions without which the model reproduces the mistake already made by well-intentioned but structurally insufficient programs.

6. Conclusions

Among the limitations of our study, its qualitative nature and the non-probabilistic nature of the sampling limit the statistical generalizability of the findings, which was not intended anyway. The sample, although diverse in media type, age or sex, overrepresents professionals from national media and Madrid. Furthermore, the self-recruitment bias may have favored profiles more willing to verbalize discomfort. This is the case for journalists from the health section, who are slightly overrepresented in our survey (21.73% of the sample); as health-beat professionals, they might be more prone to collaborate with the research due to their awareness of and sensitivity to the impact of the pathologies under study. Furthermore, a significant number of respondents hold positions as editors or section chiefs; this implies that the findings may predominantly reflect situations associated with management roles. Finally, the study also describes protective mechanisms and coping strategies as journalists perceive and narrate them from their own perspective, without it being possible to verify their actual clinical efficacy.

This work opens up at least three future lines of research. First, it is a priority to subject our proposal to quantitative validation through surveys or—better yet—through psychometric scales that allow us to estimate the relative contribution of each level and their interactions to professional well-being. The most urgent empirical step would be to implement the meso-level modules—management training in psychologically safe leadership; anonymous channels for reporting distress—in volunteer newsrooms, following the principles of fidelity and dose monitoring learned from SEEGEN. Third, the study of the differential efficacy of the HCIF's HRV-biofeedback interventions in samples of highly exposed journalists opens a line of physiological validation directly applicable to the micro level of the model.

Among the practical implications of the study, it is very clear that journalists need concrete self-regulation tools—ranging from intentional management of digital disconnection to normalized access to therapy—which the sector should treat not as privileges but as basic conditions of professional practice. It would also be advisable for executives and editorial managers to incorporate active workload monitoring and psychologically safe leadership as core competencies—not as add-ons to corporate wellness—and to ensure appropriate protocols for the gradual return to work following medical leave. Professional associations and unions face the task of transforming the specific psychosocial risks of journalism—including digital harassment and the pressure of algorithmic metrics—into negotiable terms in collective bargaining agreements, spaces for mutual care among professionals, and a central focus of their advocacy agendas. Adequate staffing in newsrooms, which redistributes the workload and enables effective disconnection, is an organizational condition that no individual intervention can replace. Finally, universities should incorporate mandatory emotional management modules tailored to the specific demands of

contemporary journalism, before their graduates enter newsrooms without the resources to cope with them.

In conclusion, the findings of our study point to a proposition that has both theoretical and sectoral policy implications: workplace anxiety in Spanish journalism cannot be sustainably reduced through isolated individual strategies alone, but rather when journalists' resources are bolstered by supportive organizational cultures and a broader environment that guarantees autonomy, contractual security, recognition of psychosocial risks, and regulatory frameworks that protect quality of life in the face of the immediacy of the news cycle. The MMG-RALP does not aim to resolve a structural contradiction that far exceeds the individual; it aims to offer a governance architecture robust enough for anxiety to regain its adaptive function and, to the extent possible, lose its destructive capacity over those who—at a very high human cost—seek to uphold quality journalism.

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Abbreviations

The following abbreviations are used in this manuscript:

DSM	Diagnostic and Statistical Manual of Mental Disorders
ICD	International Classification of Diseases
TWA	Theory of Workplace Anxiety

MESH	Matched Emotional Supports in Health Care
HCIF	Human Coherence Intelligence Framework
SEEGEN	Mental Health in the Hospital Workplace
API	Association of Investigative Journalist
APPA	Parliamentary Press Association
ACIJU	Association of Court Reporters
ANI	National Association of Health Journalists
RTARG	Reflexive Thematic Analysis Reporting Guidelines
MMG-RALP	Multilevel Governance Model for the Reduction of Work-Related Anxiety in Journalists
HRV	Heart Rate Variability
SDNN	Standard Deviation of NN intervals
RMSSD	Root Mean Square of Successive Differences

Notes

[1] The DSM-5 (American Psychiatric Association) and ICD-11 (World Health Organization) criteria are the standardized systems for diagnosing mental disorders. The DSM-5 focuses on detailed descriptions and strict criteria for research and clinical practice, while the ICD-11 is a global classification system used for statistical and clinical record-keeping.

[2] It refers to the practice of going to work while sick, unmotivated, or unproductive, and spending time on non-work-related tasks despite clocking in for the full shift. This is known as "warming the seat" and results in significant productivity losses, a poor work environment, and high financial costs for companies.

[3] In psychology, these are structured techniques designed to foster self-compassion, self-acceptance, and self-understanding, especially during times of pain, failure, or difficulty. These interventions are based on three fundamental pillars: self-compassion, a sense of shared humanity, and mindfulness.

[4] Heart rate variability (HRV) biofeedback training is a psychophysiological technique in which the individual learns to regulate their cardiac activity in real time through visual or auditory feedback, with the goal of reaching the resonance frequency—the optimal respiratory rhythm (~0.1 Hz) that maximizes HRV amplitude—and thereby strengthening autonomic regulation, reducing stress, and improving the balance between the sympathetic and parasympathetic nervous systems (Lalanza et al., 2023; Sutarto et al., 2010).

References

Ahmed, S. K., Mohammed, R. A., Nashwan, A. J., Ibrahim, R. H., Abdalla, A. Q., Ameen, B. M. M., & Khdhir, R. M. (2025). Using thematic analysis in qualitative research. *Journal of Medicine, Surgery, and Public Health*, *6*, 100198. [CrossRef]

Ahva, L., & Ovaska, L. (2023). Audience metrics as disruptive innovation: Analysing the emotional work of Finnish journalism professionals. *Nordicom Review*, *44*(2), 152–171. [CrossRef]

APM [Asociación de la Prensa de Madrid]. (2024). *XXI Informe anual de la profesión periodística 2024*. Available online: https://www.apmadrid.es/wp-content/uploads/2025/11/InformeAPM_2024.pdf (accessed on 14 March 2026).

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. [CrossRef]

Braun, V., & Clarke, V. (2024). Supporting best practice in reflexive thematic analysis reporting in palliative medicine: A review of published research and introduction to the Reflexive Thematic Analysis Reporting Guidelines (RTARG). *Palliative Medicine*, *38*(6), 608–616. [CrossRef] [PubMed]

Burgess, J., & Hurcombe, E. (2019). Digital journalism as symptom, response, and agent of change in the platformed media environment. *Digital Journalism*, *7*(3), 359–367. [CrossRef]

Bustamante-Granda, B. F., Rodríguez-Hidalgo, C., Cisneros-Vidal, M. A., Rivera-Rogel, D., & Torres-Montesinos, C. (2021). The influence of mental health on changing job desires among Ecuadorian journalists: A cross-sectional study. *International Journal of Environmental Research and Public Health*, *18*(19), 10139. [CrossRef] [PubMed]

Cheng, B. H., & McCarthy, J. M. (2018). Understanding the dark and bright sides of anxiety: A theory of workplace anxiety. *Journal of Applied Psychology*, *103*(5), 537–560. [CrossRef] [PubMed]

Chinnasamy, S., Salvosa, F. F., & Esguerra, C. V. (2024). Managing mental health risks and safety: Practical experiences and challenges faced by global south journalists. In I. Volkmer, B. Mutsvairo, S. Bebawi, A. Heinrich, & A. Castillo (Eds.), *Ecologies of global risk journalism. Conceptualizing local journalism in an era of deep disruptions*. Routledge. [CrossRef]

Council of Europe. (2026). *Europe press freedom report. On the tipping point: Press freedom 2025*. Available online: https://rm.coe.int/europe-press-freedom-report-2026-tipping-point-platform-partners-web/48802ac366 (accessed on 28 March 2026).

Dollard, M. F., & Neser, D. Y. (2013). Worker health is good for the economy: Union density and psychosocial safety climate as determinants of country differences in worker health and productivity in 31 European countries. *Social Science & Medicine*, *92*, 114–123. [CrossRef] [PubMed]

Ferrari, M., Hunt, C., Harrysunker, A., Abbott, M. J., Beath, A. P., & Einstein, D. A. (2019). Self-compassion Interventions and psychosocial outcomes: A meta-analysis of RCTs. *Mindfulness*, *10*, 1455–1473. [CrossRef]

Flores Morales, R., Reyes Pérez, V., & Reidl Martínez, L. M. (2014). The psychological impact of the war on drug trafficking on Mexican journalists. *Colombian Journal of Psychology*, *23*(1), 177–192. [CrossRef]

Gavero, G. (2016). Anxiety disorders, obsessive-compulsive and related disorders, trauma- and stressor-related disorders. In D. Alicata, N. Jacobs, A. Guerrero, & M. Piasecki (Eds.), *Problem-based behavioral science and psychiatry*. Springer. [CrossRef]

Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory*. Aldine Press.

Goyanes, M., & Rodríguez-Gómez, E. F. (2021). Presentism in the newsroom: How uncertainty redefines journalists' career expectations. *Journalism*, *22*(1), 52–68. [CrossRef]

Hernández Sampieri, R., Fernández Collado, C., & Baptista Lucio, P. (2014). *Research methodology* (6th ed.). McGraw-Hill.

Hernández Sampieri, R., & Mendoza Torres, C. P. (2018). *Research methodology: Quantitative, qualitative, and mixed methods approaches*. McGraw Hill.

Herrero-Jiménez, B., Rodríguez-Crespo, C., & Berganza, R. (2025). Risks and threats in the journalism profession in Spain: Stress and its prevalence factors. *Anàlisi: Quaderns de Comunicació i Cultura*, *71*, 77–94. [CrossRef]

Higgins-Dobney, C. L. (2021). Not on air, but online: The labor conditions of the digital journalist in U.S. local television newsrooms. *Electronic News*, *15*(3–4), 95–108. [CrossRef]

Idås, T., Backholm, K., & Korhonen, J. (2019). Trauma in the newsroom: Social support, post-traumatic stress and post-traumatic growth among journalists working with terror. *European Journal of Psychotraumatology*, *10*(1), 1620085. [CrossRef] [PubMed]

Kogan, C. S., Stein, D. J., Maj, M., First, M. B., Emmelkamp, P. M. G., & Reed, G. M. (2016). The classification of anxiety and fear-related disorders in the ICD-11. *Depress Anxiety*, *33*, 1141–1154. [CrossRef] [PubMed]

Kotera, Y., & Van Gordon, W. (2021). Effects of self-compassion training on work-related well-being: A systematic review. *Frontiers in Psychology*, *12*, 630798. [CrossRef] [PubMed]

Kotišová, J. (2019). The elephant in the newsroom: Current research on journalism and emotion. *Sociology Compass*, *13*, e12677. [CrossRef]

Kvale, S. (1996). *InterViews: An introduction to qualitative research interviewing*. Sage.

Lalanza, J. F., Lorente, S., Bullich, R., García, C., Losilla, J.-M., & Capdevila, L. (2023). Methods for Heart Rate Variability Biofeedback (HRVB): A systematic review and guidelines. *Applied Psychophysiology and Biofeedback*, *48*, 275–297. [CrossRef] [PubMed]

Lamoureux, S. (2021). "I let myself be squeezed like a lemon." Survey on alienation and suffering at work among Quebec journalists. *Communication*, *38*(2). [CrossRef]

Liang, K., & Dong, K. (2024). Analysis of the causes and mitigation paths of artificial intelligence anxiety among journalism practitioners. *Communications in Humanities Research*, *36*, 168–176. [CrossRef]

MacDonald, J. B., Hodgins, G., Saliba, A. J., & Metcalf, D. A. (2023). Journalists and depressive symptoms: A systematic literature review. *Trauma, Violence, & Abuse*, *24*(1), 86–96.

McCraty, R. (2025). *Human coherence intelligence framework (HCIF): Institutional edition*. Zenodo. [CrossRef]

McGregor, S. E., Vilk, V., & Mohamed, J. (2024). *The power of peer support. Helping journalists persevere in the face of online abuse*. PEN America. Available online: https://pen.org/report/peer-support/ (accessed on 14 March 2026).

Mulfinger, N., Jarczok, M. N., Müller, A., Genrich-Hasken, M., Worringer, B., Küllenberg, J. K., Junne, F., Rapp, F., Rieger, M. A., Rothermund-Nassir, E., Ziegenhain, U., Hander, N. R., Maatouk, I., Helaß, M., Peters, M., Sander, A., Krisam, R., Limprecht, R., Gesang, E., . . . Gündel, H. (2025). Effectiveness of a multilevel intervention to improve mental health of hospital workers: The SEEGEN multicenter cluster randomized controlled trial. *PLoS ONE*, *20*(8), e0330490. [CrossRef] [PubMed]

Osmann, J., Dvorkin, J., Inbar, Y., Page-Gould, E., & Feinstein, A. (2021). The emotional well-being of journalists exposed to traumatic events: A mapping review. *Media, War & Conflict*, *14*(4), 476–502. [CrossRef]

Papadopoulou, L., Angelou, I., & Katsaounidou, A. (2025). "I love my job, but my job is destroying me". The permacrisis' toll on journalistic practice and perceptions about journalism in southern Europe. *Journalism*, *26*(11), 2439–2460. [CrossRef]

Park, S. C., & Kim, Y. K. (2020). Anxiety disorders in the DSM-5: Changes, controversies, and future directions. In Y. K. Kim (Ed.), *Anxiety disorders* (Vol. 1191). Springer. [CrossRef] [PubMed]

Petre, C. (2022). *All the news that's fit to click: How metrics are transforming the work of journalists*. University of Chicago Press.

Price, J., Becker-Haimes, E. M., & Benjamin Wolk, C. (2021). Matched Emotional Supports in Health Care (MESH) framework: A stepped care model for health care workers. *Families, Systems, & Health*, *39*(3), 493–498. [CrossRef] [PubMed]

Pruneti, C., Fiduccia, A., & Guidotti, S. (2024). Top-level managers' psychophysical recovery investigated through different psychophysiological parameters benefits from training based on muscle relaxation and self-monitoring of HRV-biofeedback. *NeuroRegulation*, *11*(1), 43–52. [CrossRef]

Ressler, K. J., Keough, M. E., Stein, M. B., & Roy-Byrne, P. P. (2013). Diagnosis of anxiety disorders. In D. S. Charney, P. Sklar, J. D. Buxbaum, & E. J. Nestler (Eds.), *Neurobiology of mental illness*. Oxford Academic. [CrossRef]

Retegui, L. (2020). Metrics and quantification of individual journalist performance: A study inside a newsroom. *Austral Comunicación*, *9*(1), 45–67. [CrossRef]

Rick, J., & Hanitzsch, T. (2024). Journalists' perceptions of precarity: Toward a theoretical model. *Journalism Studies*, *25*(2), 199–217. [CrossRef]

Schulte, P. A., Sauter, S. L., Pandalai, S. P., Tiesman, H. M., Chosewood, L. C., Cunningham, T. R., Wurzelbacher, S. J., Pana-Cryan, R., Swanson, N. G., Chang, C.-C., Nigam, J. A. S., Reissman, D. B., Ray, T. K., & Howard, J. (2024). An urgent call to address work-related psychosocial hazards and improve worker well-being. *American Journal of Industrial Medicine*, *67*(6), 499–514. [CrossRef] [PubMed]

Seely, N. (2020). Fostering trauma literacy: From the classroom to the newsroom. *Journalism & Mass Communication Educator*, *75*(1), 116–130. [CrossRef]

Shah, S. F. A., Cvetkovic, I., Ginossar, T., Ullah, R., Baber, D., & Slaughter, A. (2024). Online harassment, psychological stressors, and occupational dysfunction among journalists working in a conflict zone. *Digital Journalism*, *12*(6), 735–752. [CrossRef]

Slavtcheva-Petkova, V., Ramaprasad, J., Springer, N., Hughes, S., Hanitzsch, T., Hoxha, A., & Steindl, N. (2023). Conceptualizing journalists' safety AROUND the globe. *Digital Journalism*, *11*(7), 1211–1229. [CrossRef]

Soto-Sanfiel, M. T., & Salojärvi, V. (2024). Psychological aid and training for journalists who face continued emotionally demanding environments: The case of Venezuelan journalists. In L. Barkho, J. A. Lugo-Ocando, & S. Jamil (Eds.), *Handbook of applied journalism*. Springer. [CrossRef]

Stein, D. J., & Nesse, R. M. (2015). Normal and abnormal anxiety in the age of DSM-5 and ICD-11. *Emotion Review*, *7*(3), 223–229. [CrossRef]

Sutarto, A. P., Abdul Wahab, M. N., & Mat Zin, N. (2010). Heart Rate Variability (HRV) biofeedback: A new training approach for operator's performance enhancement. *Journal of Industrial Engineering and Management*, *3*(1), 176–198. [CrossRef]

Šimunjak, M. (2022). Pride and anxiety: British journalists' emotional labor during the COVID-19 pandemic. *Journalism Studies*, *23*(3), 320–337. [CrossRef]

Šimunjak, M., & Menke, M. (2023). Workplace well-being and support systems in journalism: Comparative analysis of Germany and the United Kingdom. *Journalism*, *24*(11), 2474–2492.

Taylor, S. J., & Bogdan, R. (1990). *Introduction to qualitative research methods*. Paidós.

Tornero-Aguilera, J. F., Robles-Pérez, J. J., & Clemente-Suárez, V. J. (2020). Could combat stress affect journalists' news reporting? A psychophysiological response. *Applied Psychophysiology and Biofeedback*, *45*, 231–239. [CrossRef] [PubMed]

Upadhyay, A., Bijale, M., & Hasan, K. (2024). Impact of AI integration on journalists' mental health: A quantitative study. *Annals of Neuroscience*, *31*, 4. [CrossRef] [PubMed]

Vagedes, J., Szőke, H., Islam, M. O., Sobh, M., Kuderer, S., Khazan, I., & Vagedes, K. (2025). Mobile heart rate variability biofeedback for work-related stress in employees and the influence of instruction format (digital or live) on training outcome: A non-randomized controlled trial. *Applied Psychophysiology and Biofeedback*, *50*, 79–93. [CrossRef] [PubMed]

Vonderlin, R., Biermann, M., Bohus, M., & Lyssenko, L. (2020). Mindfulness-based programs in the workplace: A meta-analysis of randomized controlled trials. *Mindfulness*, *11*(7), 1579–1598. [CrossRef]

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