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Could Better-Quality Employment Improve Population Health? Findings From a Scoping Review of Multi-Dimensional Employment Quality Research and a Proposed Research Direction

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ABSTRACT

Background: Precarious employment, a specific part of the conceptual spectrum of employment quality (EQ), has been established as an important risk to individual and population health and well-being when compared to a standard employment circumstance. There remains a need, however, to explore whether and how EQ might be used as a tool to not only protect but also advance population health and well-being.

Methods: The purposes of this scoping review were to assess the analytic treatment of the multiple dimensions of EQ and the stances researchers take to characterize the state of knowledge of EQ that supports the idea that better EQ is a health-promoting factor. Quantitative, qualitative, and mixed-methods primary studies that included at least three of the seven conceptually-informed EQ dimensions were eligible. Studies were assessed for EQ dimensions represented, how dimensions were treated analytically, the pathogenic, ambivalent, or salutogenic stances used by investigators, and what each might tell us about how to leverage aspects of better-quality employment to improve population health.

Results: A total of 78 studies were included; 54 of these treated EQ dimensions in an interrelated way. Of the analytically interrelated studies, none had an explicit salutogenic stance. Some evidence suggests that a handful of EQ types might present an equal or reduced risk of poor health than the standard employment relationship, frequently used as a historic gold standard.

Conclusion: Research with a salutogenic stance might build our understanding of whether and how employment could be used to advance our collective well-being.

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1 | Introduction

Work has long been recognized for its important impacts on the safety and health of both individuals and populations, particularly populations of workers in specific occupations historically recognized as dangerous (e.g., mining, construction). Despite substantial (if uneven) progress in addressing work-related injury and disease, the International Labor Organisation estimates the global burden of work-related fatalities at 6.71% of all deaths [1]. Besides their impact on mortality, work-related diseases have a significant role in increasing morbidity rates and disability-adjusted life years [1]. This burden and the multitude of perspectives taken by interdisciplinary scholars on the study of work and its impact on health reinforce the importance given to this topic.

Evolutions in labor markets (e.g., globalization, the rise of neoliberalism) [2, 3] and societies (e.g., transfer of risk to individual workers away from employers and society at large) [3] in the last few decades have prompted an expanded consideration of the ways in which work interacts with health. This expanded consideration has directed researcher attention toward employment relations and the terms and conditions established as a result of an employment relation, alongside longstanding concerns related to physical, chemical, biological, and psychological aspects of workplace interactions that can be intervened upon to protect health. This line of employment research, in which we generally situate this review, highlights the negative influences of clusters of unfavorable features of employment conditions stemming from the employment relation, which include instability of employment, insufficient or volatile pay and benefits, de-standardized working time, curtailed worker rights and protections, lack of collective worker representation and empowerment, and imbalanced interpersonal power in the workplace. Employment with these features is called Precarious Employment (PE), and it has been characterized as poor quality in the conceptual array of more neutrally-termed employment quality (EQ) [4–6].

Precarious employment has been established as an important determinant of individual and population health and health inequities [7–9]. Researchers have developed several indices with which to measure precarious employment and its related constructs when studying its distribution in the population or its relation with health [10–13]. Despite the fact that precarious employment is defined as a multi-dimensional construct [6, 14, 15] composed of interrelated and interdependent dimensions [4, 16], a review found that only four of 14 studies operationalized precarious employment with a multi-dimensional indicator [17]. This could, in turn, underestimate the presence of precarious employment and blur the explanatory mechanisms through which it impacts health. However, irrespective of the approach taken when studying the impact of precarious employment on health (i.e., multi-, bi-, or uni-dimensional), the results show its harmful impact on a range of mental and physical conditions. For instance, findings linking precarious employment to mental distress are consistent; seven systematic reviews [18–24] have demonstrated that precarious employment is associated with a variety of unwanted mental health conditions. Precarious employment has also been investigated for associations with other health indicators, such as general

self-rated health status, occupational health and safety concerns, and undermined subjective or objective well-being. Systematic reviews have also found precarious employment and persistent precarious employment (longer than 12 months) to be associated with poorer general health, physical health, “workplace well-being”, general well-being, and damaging health behaviors [20, 23]. One review assessing precarious employment and occupational injury found mixed evidence [18]. Based on consistent findings that it is not evenly distributed in societies, systematic and scoping reviews have furthermore assessed precarious employment’s impact on socially-constructed and age-group sub-populations, including migrant persons [19, 25], different genders [24, 26], and in young workers [25, 27]. These generally find precarious employment adversely affects the health of sub-groups.

Precarious employment research usually contrasts poor-quality employment with that that is termed the “standard employment relationship” (SER, or ‘SER-like’ as a reference category in studies). The standard employment relationship is one in which workers can expect stable employment with adequate and consistent pay (a ‘family wage’) and working time, and the full suite of rights and protections provided by the society in which the work takes place that, in turn, buttress balanced interpersonal power dynamics associated with employment [5, 28]. Characterizing the erosion of terms and conditions of employment has been important both for highlighting the change, itself, and for firmly locating employment terms and conditions within political and class power relations. Yet, the standard employment relation was standard for a relatively short period of time [29], prevalent in specific geographic regions of the world, and concentrated among certain social groups, namely, non-racialized and nonimmigrant men [28].

As the scholarly conversation has continued, evolutions in labor markets and societies proceed, and resources for research do or do not evolve, researchers have sought additional ways to characterize employment for its influences on health and well-being. Some researchers [30–32] have used data-driven approaches that often (but not always) [5] rely on statistical techniques to group workers into categories of employment based upon the similarity of proxy-reported features of their employment rather than on measurement instruments specifically designed to measure precarious employment. Such studies result in a broader set of constellations of features than the more specific “bad” or “less/not bad” employment situations implied by the use of dichotomous variables to deem employment precarious or not precarious. Such studies sometimes also describe the circumstances of self-employed workers. Researchers suggest these approaches may better represent the range of modern employment circumstances available to and experienced by people and the increased blurring of traditional categories (e.g., the waged vs. the self-employed), while still maintaining a focus on aspects important to the study of employment quality as it relates to health and well-being (e.g., security, material benefits, and rights and protections accessible to the workers) [6]. Data-driven approaches can also be used to overcome the fact that many existing datasets available to researchers do not include previously validated indices to measure employment quality [7], yet still assess multiple dimensions of it. Taking advantage of imperfect datasets can

prevent an over-reliance on using uni-dimensional approaches, which are not recommended given that they may contribute to an underestimation of the prevalence of low-quality employment and its impact on health [21]. Data-driven approaches have furthermore introduced vocabulary describing the constellations of employment beyond the standard employment relationship/precarious employment contrast, as well as theoretical, design, and analysis complexities that impact the ways in which we might interpret results. Likewise, comparison across societies has proved challenging, particularly because several factors that influence the contours of employment are situated in different institutional locations and policy environments in different societies [4, 33]. The functioning and relevance of such context specificity might well be elucidated through qualitative inquiry, but with the exception of a few examples [17, 19, 34], most existing reviews have either focused only on quantitative primary studies [18, 20, 21, 24–27, 35], or have intended to include qualitative studies but few or no qualitative studies met the investigators' inclusion criteria [23, 27].

Despite the added interpretive complexity, expanded research approaches used to study the spectrum of employment quality may be particularly useful for thinking about improving population health and making progress on health inequities. In many ways, researchers focused on the interaction of employment with health have adapted the biomedical mind frame, wherein exposure to a hazard—precariousness in employment—leads to a risk of an unwanted health outcome [36]. This perspective is an important one, serving to build awareness of precarious employment not only as a social determinant of health and health inequalities but also of the complex initiatives required to measure and track its burden and mitigate its impact [37, 38] as evidence of its growth and influence has accumulated [9]. Yet, while research on precarious employment has confirmed that it undermines health and well-being, this research is not able to show that features of employment might be configured such that employment of high quality might be used as a tool for population health improvement. If employment with certain features can actually improve health beyond protecting it from deterioration, knowing what factors to build into an employment situation to *bolster worker health and well-being* is just as important as knowing what factors to avoid to *prevent or limit harm* to workers. Such clarity is furthermore important for health equity; because precarious employment is health-harming, we must redouble our efforts to curtail it as well as find ways to improve the health and well-being of those impacted [9]. Indeed, broader aspirational job quality constructs that include facets of employment quality have garnered attention, such as the International Labor Organisation's decent work [39], and the United States Department of Commerce's Job Quality [40]. Approaches such as the *Total Worker Health*® (TWH) program of the National Institute for Occupational Safety and Health (United States) state as goals “that all work should both be safe *and* enhance the health and well-being of workers” (p. 6, emphasis added) [41]. That is, the formulation of all three ideas suggests we might think of high-quality jobs as those that do not expose people to hazards that can cause injury or disease, but also as those jobs that might help people move toward a stronger state of health and overall well-being. If researchers focused on employment

quality are to contribute to a dialogue about employment's health-promoting potential as part of broader constructs like job quality [42, 43], employment's health-advancing potential should be clarified [43].

Theory about what enables health illuminates the tension between employment as a cause of disease and injury and employment as an experience that might contribute to life, as a whole, feeling manageable, meaningful, and understandable [44–47]. If employment is not structured by political, economic, and cultural settings [48, 49] such that employment conditions are coherent, meaningful, and manageable from the stance of workers, it is hard to imagine employment advancing population health. Put another way, precarious employment has been established as a *risk factor* for health due to the impact of its accumulation of unfavorable features, and a contributing factor for health inequity in that it is unevenly distributed in societies. It is unclear, however, whether better employment quality has been established as a *salutary factor*, because research has emphasized health-harming aspects of employment quality by focusing on the lacks associated with precarious employment.

All reviews cited above explore precarious employment, which is a stance that considers employment quality as an exposure that is problematic for health, safety, or well-being. No reviews, to our knowledge, have specifically considered employment from a stance that all employment can be characterized by the quality that, in turn, interacts with safety, health, or well-being in health-undermining and (possibly) health-promoting ways. Moreover, all but one review [23] included primary studies using uni-dimensional measures of precarious employment along with those using multi-dimensional assessments. To identify gaps in knowledge and frame an agenda for using high-quality employment as a tool to promote health, we undertook a scoping review including two phases. We initially sought to answer the following questions [50].

- Within the multi-dimensional precarious employment/employment quality-health literature, which dimensions are represented, and how have they been analytically treated?
- To what extent does existing employment quality research provide us with knowledge about how to leverage aspects of better-quality employment to improve population health?

We integrated qualitative and quantitative evidence, which led us to an additional review question [51]—What stances (pathogenesis, salutogenesis, ambivalence) do investigators take to understand the employment-health/safety/well-being relations in the multi-dimensional precarious employment and employment quality literature? In the text that follows, we detail our strategies and findings [52].

2 | Methods

We conducted a scoping review and a data-based, convergent mixed-method synthesis of evidence with integration at points of (1) the review questions posed, as our broad questions were best answerable by multiple forms of data, and (2) at analysis

[53], where we transformed quantitative findings into text summaries using Sandelowski and colleagues' guidance [54].

2.1 | Protocol

A summary of the project was registered with Open Science Framework (OSF) in 2022. The initial deductive protocol, one full search strategy, data extraction forms, information summarizing studies excluded at extraction, and the PRISMA-ScR checklist for this study are available via the OSF platform (<https://osf.io/nrmp5/>). Work was performed at the University of Utah, Emory University, the National Institute for Occupational Safety and Health, Vrije Universiteit Brussel, Cape Breton University, Karolinska Institutet, Universitat Pompeu Fabra, Hospital del Mar Nursing School, and the Hospital del Mar Research Institute. Since this research relies on already published research and involves no human subjects, human subjects research approval was not required.

2.2 | Databases and Search

After testing and refinement of a search strategy under the guidance of a librarian, general search terms (e.g., precarious employment, employment quality, given conceptual overlap) and combinations of at least three terms related to specific dimensions of EQ were searched for their inclusion in title, abstract, or keywords of published articles located through Medline (Ovid) or Scopus. A total of 35 searches were performed in each database to get at all possible combinations of a general term and at least three dimensions. Three or more dimensions were required because of the consensus that precarious employment is a multidimensional construct [7, 8]. Despite this, the number of dimensions that need to be represented for employment quality to be considered multidimensional is still an unanswered question in the field, as a recent review suggested it has three central component domains [6], while prior literature specifies up to seven dimensions [5, 32]. We elected to follow the more lenient number of three with any of the dimensions previously discussed in the literature represented. One full example search is located in our OSF registry (<https://osf.io/nrmp5/>). Forward and backward hand searching was performed using the initial list of included full-text studies. Finally, reviewers were asked to put forth any studies they thought ought to be assessed for inclusion that had not been located in searches.

2.3 | Eligibility Criteria

Empirical studies conducted using quantitative, qualitative, or mixed methods examining the relations between employment quality and health, safety, or well-being were considered for inclusion.

2.3.1 | Population

Persons over 18 years with no upper age limit.

2.3.2 | Exposure

Included studies (qualitative, quantitative, or mixed methods), as explained prior, had to have examined at least three dimensions of employment quality. Quantitative studies had to either have investigated some form of interaction or joint effects of those dimensions that contribute to determining the relative quality of an employment situation on outcomes or have included all three of the dimensions in the same model in tests of relation to outcomes.

2.3.3 | Outcomes

General health, mental health, physical health, occupational health and safety, and subjective and objective well-being outcomes were all eligible.

2.3.4 | Language, Setting, Time Period, Study Quality

Because of the number of total abstracts to screen, the requirement that each abstract be screened by two team members, and the common practice that studies in other languages include an English abstract, only publications with English-language abstracts were considered for inclusion. After abstract inclusion/exclusion decisions, the language capabilities of our study team allowed only manuscripts written in English or Spanish to be eligible. Studies of specific workplaces or organizations or general working-age populations of any country were eligible. No time period limitations were imposed.

2.4 | Selection

Following de-duplication and pilot testing, each title and abstract was assessed for inclusion by two independent reviewers. Disagreements were resolved by the first author. Full texts retrieved were also screened following a two-reviewer assessment process, and conflicts were resolved by consensus discussion with the full group.

2.5 | Charting and Data Items

The team developed, piloted, and refined standardized data extraction forms (Figure 1) using deductive logic to characterize study purposes, dimensions of employment quality, and outcomes into predetermined categories [52]. In addition to paraphrasing the study purposes as stated by authors of primary papers, extractors labeled each study's construct of focus as either PE (i.e., a study that specifically examines the cumulation of unfavorable employment dimensions) or EQ, (i.e., a study that explicitly examines a spectrum of more and less favorable presentations of employment dimensions). The seven dimensions of employment quality were extracted as named by study authors, and categorized by extractors using Van Aerden and colleagues' characterization—employment stability, material rewards, workers' rights and social protections, working time arrangements, employability opportunities, collective organization, and interpersonal power relations [32]. Outcomes assessed (quantitative studies) or health and well-being states described



FIGURE 1 | Overview of extraction and analysis processes. *For details, see “EQ dimensions and analytic treatment” section of Findings. **For details, see “Research stance” section of Findings and Table 1. ***For details, see “The complexities of health, well-being, and improving health” section of Findings.

(qualitative), were classified individually at extraction into categories. Additional major categories for extraction included details about the study (e.g., year, data type and source, country of study), design and participants, description of analyses conducted, main findings summarized by the extractors in qualitized form [53, 54], limitations identified by both authors and reviewers, conclusions, and details about funding and other acknowledgements (see OSF registry <https://osf.io/nrmp5/>).

Separate extraction forms were developed for quantitative and qualitative studies, which were very similar but adjusted for different logics used in each type of study. Findings extraction for all studies followed guidance put forth by Sandelowski and colleagues [54], and qualitative studies were characterized by the presentation of their findings as described in Sandelowski & Barroso [55]. Data for each study were extracted by a primary reviewer and verified by a second. Discussions after verification explored disagreements; the remaining differences in extraction points were resolved by the first author.

2.6 | Analyses

Using deductive extraction and analysis in which we followed JBI Guidance for scoping reviews [52], we employed counts,

tabulation, simple calculations, and basic qualitative content analysis to describe characteristics of included studies (Figure 1). The team reviewed initial analyses against our conceptual frames and review questions to specify subsequent inductive analytic steps based on the extracted data [51], which are detailed below. Specifically, we examined data form and source, the dimensions included, the analytic treatment of dimensions, and the stance of investigators on the employment quality-health/safety/well-being relation. In our iterative approach to research questions, narrowing the field of studies on which we focus for their relevance to our goals and analyses, our review aligns with a critical interpretivist approach to synthesizing qualitative and quantitative studies [56, 57]. All analyses were conducted by the first author and discussed iteratively with the research team.

For inductive analyses, studies were first assessed as to whether conceptually interrelated employment quality dimensions were treated as interrelated in their analyses. This assessment allowed us to delineate the dimensions in use and the analytic treatment of them, the basis of our first review question. Quantitative studies employing latent class analysis to group employment dimensions, multichannel sequence analysis, or a specific measurement scale for precarious employment were considered to use interrelated treatment of dimensions. Studies

employing structural equation modeling that treated employment quality as a latent variable measured by indicators of multiple dimensions and that modeled the latent employment quality variable as a predictor of health were also considered to employ interrelated analytic treatment. Qualitative studies were coded as treating dimensions of employment quality as interrelated in their ties to health if any of the dimensions were analyzed or interpreted as interrelated by authors. If participant data (i.e., quotes) seemed to discuss dimensions as interrelated, but researchers framed them as distinct in their influence on health, studies were not considered interrelated employment quality dimension investigations. Subsequent analyses then only focused on studies that treated employment quality dimensions interrelatedly (see OSF registry <https://osf.io/nrmp5/>). This included counting the number of health and well-being outcomes within larger categories in each study. Total outcomes within each category were summed across studies to assess the frequency with which each outcome was examined across the studies.

We began with the idea that we would be focused on study outputs or the findings of the individual studies. We realized as we proceeded, however, that studies employing neutral terminology about the construct under study (i.e., employment quality) were nonetheless more mixed in their framing, operationalizations, and findings, and therefore we developed procedures to characterize inputs (e.g., stated researcher stances, variables/items used in operationalization) and specify the outputs that most clearly answered our review question about the health-promoting potential of employment using the purpose statements of the included studies as well as selected study outputs. At that stage, we added a review question about the researcher's stance. To address the inductively-developed review question regarding stance on the employment/health and well-being relation, studies were then characterized as pathogenic, ambivalent, or salutogenic in overall stance based on the extracted, reviewer-summarized purpose statement and reviewer categorizations of the construct of focus as either precarious employment or employment quality more generally. The coding scheme was applied to obtain counts of studies in each category was as follows:

- Pathogenic: All precarious employment studies; employment quality studies whose purpose statement framed construct as a risk factor and/or presumed negative relations with health.
- Ambivalent: Employment quality studies and neither risk factor nor salutary factor framing of construct or relations to health, safety, or well-being are presumed in the purpose statement.
- Salutogenic: Employment quality studies; purpose statement framed construct as a salutary factor and/or presumes health-promoting aspects of employment exist.

Finally, we used qualitative content analysis to descriptively summarize findings from studies that used interrelated analysis of dimensions and were also coded as employment quality studies [58]. For each of these studies, we compiled health issues studied, qualitized [54] findings from all studies, noted a reference category for statistical analyses tying employment

quality and health and any comparisons of distinct groups from qualitative ones, and considered any notes recorded by extractors on these features. Next, information from all categories in this analysis was used to develop narrative summaries of the study's context and findings. While quantitative studies included multiple employment quality groupings and tied outcomes to each group, we considered only those that might be viewed as *potential positive* health findings for workers. We finally synthesized information across studies.

3 | Findings

In this section, we proceed from describing the full selection of sources of evidence to a general overview of all included studies ($N = 78$) [11, 24, 30–32, 59–130]. We then discuss studies that treated employment quality dimensions as analytically interrelated ($N = 54$; Table 1) and end with analytically interrelated studies that also were coded as more broadly engaging employment quality (not precarious employment; $N = 11$; Figure 1) to characterize any aspects of better employment that might be leveraged to improve population health.

3.1 | Section 1, Selection of Studies

There were 11,723 studies identified for screening from academic databases. Figure 2 shows the decisional flow to get to our 78 included studies; a descriptive table containing information narratively described here for all 78 included studies, as well as details about the eight studies excluded during the extraction phase may be found in the OSF registry (<https://osf.io/nrmp5/>). Two of the included studies were in Spanish [24, 131], and the rest were written in English.

3.2 | Data Form and Source

We categorized 66 studies as investigations focused on precarious employment, and 12 as focused on broader arrangements of employment quality (see OSF registry). Thirty-four studies answered their research questions using primary data, of which about two-thirds did so in qualitative form (OSF registry) [11, 59, 60, 62, 63, 65–69, 74, 76, 77, 81, 85–87, 90, 92, 93, 95, 101, 109, 111, 114, 117, 118, 121–123, 125, 129, 130, 132, 133]. Forty-four studies used secondary data leveraging 27 different data sources (see OSF registry for specific sources). The most frequently used source was the European Working Conditions Survey, employed by 11 studies [32, 82, 83, 89, 97, 98, 102–104, 112, 124], and six studies elected to use more than one data source [79, 82, 84, 88, 110, 134]; one of these [87] used one primary data source and one registry data source.

3.3 | EQ Dimensions Represented

Looking at the employment quality dimensions represented, all but six studies included the material rewards dimension [70, 71, 79, 97, 119, 120], and all but seven the employment stability dimension [82, 89, 91, 116, 122, 134, 135]. Dimensions least

TABLE 1 | Overview of studies treating EQ dimensions as interrelated ($N = 54$).

Author (Year)	Study purpose ¹	Construct; stance ²	Country (ies)	Study design or form ³	Number of EQ dimensions included (7 possible)	Study population ⁴	Analytic approach ⁵	Safety, health, or well- being states ⁶
(Alach and Kerr) ⁵⁹	Describe the ways in which temporary agency workers experience their employment	EQ; Ambivalent	New Zealand	Not specified; Qual	6	Temporary agency workers ($n = 31$) and agency representatives ($n = 9$)	Content analysis and description of links with health and well-being	GH, MH, SOW
(Belvis et al.) ⁶⁰	Examine social support as a moderator on the relationship between PE and perceived stress and biomarkers of chronic stress	PE; Pathogenic	Spain	Analytic cross-sectional; Quant	7	General population 24-60 y/o ($N = 255$)	Regression	PH, SOW
(Benach et al.) ⁶¹	To assess the associations between PE with mental and self-rated health with a multidimensional scale.	PE; Pathogenic	Spain	Analytic cross-sectional; Quant	3	General population > 16 y/o ($N = 2279$)	Regression	GH, MH
(Bonney et al.) ⁶³	Examine relationships between employment precarity and occupational hazards.	PE; Pathogenic	U.S.A.	Analytic cross-sectional; Quant	5	General population in specific neighborhoods 18 y/o or older ($N = 479$)	Regression	OSH
(Bosmans et al.) ⁶⁴	Examine the impacts temporary employment has on coping resources.	PE; Pathogenic	Belgium	Phenomenologic perspective; Qual	7	Temporary agency workers ($N = 12$)	Thematic analysis with descriptions of ties to coping resources	SOW
(Butler and Stoyanova Russell) ⁶⁵	Explore how freelance stand-up comedians navigate employment circumstances.	PE; Pathogenic	UK	Not stated; Qual	3	Stand-up comedians ($N = 64$)	Thematic analysis with descriptions of ties to health and well-being	MH, SOW

(Continues)

TABLE 1 | (Continued)

Author (Year)	Study purpose ¹	Construct; stance ²	Country (ies)	Study design or form ³	Number of EQ dimensions included (7 possible)	Study population ⁴	Analytic approach ⁵	Safety, health, or well- being states ⁶
(Cañada) ⁶⁶	Understand the impact of outsourcing on hotel maids' labor conditions.	PE; Pathogenic	Spain	Not stated; Qual	6	Hotel maids (N = 24)	Content analysis with description of ties between outsourcing and health, safety, and well-being	GH, MH, PH, OSH, SOW
(Caroz-Armayones et al.) ⁶⁷	Understand the relation between housing precariousness and PE and their combined effect on stress.	PE; Pathogenic	Spain	Analytic cross-sectional; Quant	5	General population 24-60 y/o (N = 255)	Structural equation modeling	SOW
(Chan and Tweedie) ⁶⁸	Examine how professionals in precarious employment understand PE's influence life decisions.	PE; Pathogenic	Australia	Not stated; Qual	5	High-skilled professionals in PE (N = 16)	Content analysis with descriptions of ties between PE and reproductive choices.	SOW
(Clarke et al.) ⁶⁹	Explore the impact of PE on health using the employment strain framework.	PE; Pathogenic	Canada	Not stated; Qual	7	Mid-career persons in PE (N = 82 interviews; N = 3244 survey responses)	No analysis information provided	GH, MH, PH, OSH, SOW
(Cooklin et al.) ⁷⁰	Examine whether poor-quality jobs bring an increased risk of post-partum psychological distress.	PE; Pathogenic	Australia	Analytic cross-sectional; Quant	4	General population; (N = 1300)	Regression	MH
(Devereux and Wadsworth) ⁷⁴	Explore the relationship between PE and control over schedule/location and the consequences for OSH among seafarers.	PE; Pathogenic	UK	Not specified; Qual	5	Seafarers (N = 37)	Thematic analysis with descriptions of ties to health, safety, and well-being.	GH, MH, OSH, SOW

(Continues)

TABLE 1 | (Continued)

Author (Year)	Study purpose ¹	Construct; stance ²	Country (ies)	Study design or form ³	Number of EQ dimensions included (7 possible)	Study population ⁴	Analytic approach ⁵	Safety, health, or well- being states ⁶
(Donnelly) ⁷⁵	Examine whether characteristics of PE are associated with self-rated health and whether these vary by occupation-specific or state-specific unemployment rates.	PE; Pathogenic	U.S.A.	Analytic cross-sectional; Quant	4	General population (N = 1,455, 605)	Regression	GH
(Edmonds et al.) ⁷⁹	Examine associations between PE and health, financial stability, and sustainable employment.	PE; Pathogenic	U.S.A.	Analytic cross-sectional; Quant	5	Workers re-entering workforce after permanent partial disability compensation awarded (N = 442)	Regression	GH, OSH, SOW
(Eisenberg-Guyot et al.) ⁸⁰	Analyze the gender-specific associations between EQ trajectory and later life poor/fair SRH and moderate mental illness.	EQ; Pathogenic	U.S.A.	Panel; Quant	5	General population (N = 2798 self-rated health, N = 2055 mental health)	Multi-channel sequence analysis	GH, MH
(Fouskas) ⁸¹	Explore how PE affects health among migrant workers.	PE; Pathogenic	Greece	Not specified; Qual	6	Migrant workers (N = 227)	Thematic analysis with descriptions of ties to health, safety, and well-being	GH, MH, OSH, SOW
(Gevaert et al.) ⁸³	To examine how employment quality types defined among both the waged and self-employed relate to workers' health and well-being.	EQ; Ambivalent	EU	Analytic cross-sectional; Quant	7	General population (N = 31,129)	Regression	GH, SOW

(Continues)

TABLE 1 | (Continued)

Author (Year)	Study purpose ¹	Construct; stance ²	Country (ies)	Study design or form ³	Number of EQ dimensions included (7 possible)	Study population ⁴	Analytic approach ⁵	Safety, health, or well- being states ⁶
(Grzywacz and Dooley) ⁸⁴	Offer an EQ construct for a range of job types from optimal to inadequate and measure its association with health indicators.	EQ; Ambivalent	U.S.A.	Analytic cross-sectional; Quant	4	General population (N = 1771 in one state; N = 3032 national sample)	Regression	GH, MH
(Hesmondhalgh and Baker) ⁸⁶	Analyze emotional responses cultural workers have to employment conditions.	EQ; Ambivalent	UK	Not stated; Qual	7	Workers in music, television, and magazine media (N = 63)	Not provided	MH, OSH, SOW
(Jonsson et al.) ⁸⁷	Assess associations between PE and health	PE; Pathogenic	Sweden	Analytic cross-sectional; Quant	5	Non-standard employees 18-65 y/o	Regression	GH, MH, PH
(Jonsson et al.) ⁸⁸	Assess the risk of being diagnosed with mental disorders, substance use disorders, or suicide attempt	EQ (low-quality trajectories emphasized); Pathogenic	Sweden	Cohort; Quant	3	General population 18-81 y/o	Regression	MH
(Julià et al.) ⁸⁹	Explore relations among informal work, permanent, and temporary contractual arrangements, PE, and health	PE; Pathogenic	EU-27	Analytic cross-sectional; Quant	6	General population 15-64 y/o	Regression	GH, SOW
(Julià et al.) ⁹⁰	Examine associations between PE and perceived stress and biomarkers of stress	PE; Pathogenic	Spain	Analytic cross-sectional; Quant	5	General population 25-60 y/o	Regression	SOW
(Julià et al.) ⁹¹	Analyze associations between PE and poor mental health under different contractual arrangements	PE; Pathogenic	Spain	Quant	4	General population 16-65	Regression	MH

(Continues)

TABLE 1 | (Continued)

Author (Year)	Study purpose ¹	Construct; stance ²	Country (ies)	Study design or form ³	Number of EQ dimensions included (7 possible)	Study population ⁴	Analytic approach ⁵	Safety, health, or well- being states ⁶
(Karl et al. 2020) ⁹²	Investigate the impact of PE during pregnancy and post- partum depression symptoms.	PE; Pathogenic	Germany	Cohort; Quant	4	General population of pregnant persons (<i>N</i> = 587)	Regression	MH
(Kvart et al.) ⁹³	Explore whether workers in high PE, compared to low PE, experience more violence/threats, bullying, sexual harassment, discrimination.	PE; Pathogenic	Sweden	Analytic cross- sectional; Quant	5	General population 18-65 y/o (<i>N</i> = 401)	Regression	SOW
(Lewchuk) ¹¹	Assess how insecure employment associated with a 'gig' economy might affect well-being and social relations.	PE; Pathogenic	Canada	Analytic cross- sectional; Quant	4	General population 25-65 y/o (<i>N</i> = 7908)	Regression	GH, MH, SOW
(Lopez et al.) ⁹⁴	Estimate the association between PE and symptoms of anxiety and depression.	PE; Pathogenic	Chile	Analytic cross- sectional; Quant	4	General population (<i>N</i> = 1900)	Regression	MH
(MacEachen et al.) ⁹⁵	Examine how workers' compensation and return-to-work policies fit the needs of PE.	PE; Pathogenic	Canada	Critical discourse analysis; Qual	4	PE workers who had experienced workplace injury/ illness (<i>N</i> = 20)	Thematic analysis to tie to health, safety, and well- being	MH, OSH, SOW
(Matilla- Santander et al.) ⁹⁷	Compare health of those in highly PE to those unemployed	PE; Pathogenic	35 European countries	Quant	5	General population 16-65	Regression	GH, MH, PH
(Matilla- Santander et al.) ⁹⁹	Assess relations between PE and social precarity	PE; Pathogenic	Sweden	Analytic cross- sectional; Quant	5	General population 18-62 y/o	Regression	SOW

(Continues)

TABLE 1 | (Continued)

Author (Year)	Study purpose ¹	Construct; stance ²	Country (ies)	Study design or form ³	Number of EQ dimensions included (7 possible)	Study population ⁴	Analytic approach ⁵	Safety, health, or well- being states ⁶
(Matilla-Santander et al.) ¹⁰⁰	Examine associations of PE trajectories with the subsequent risk of myocardial infarction and stroke	PE; Pathogenic	Sweden	Cohort; Quant	3	General population 41-61 y/o	Regression	PH
(Méndez Rivero et al.) ¹⁰²	Analyze different levels of PE and mental health and potential mediation by psychosocial risk factors.	PE; Pathogenic	22 European countries	Cross-sectional mediation; Quant	5	General population 16-65 y/o (N = 15,932)	Regression	SOW
(Padrosa et al.) ¹⁰⁴	Examine relations among PE, welfare states, health from a gender perspective.	PE; Pathogenic	22 European countries	Analytic cross-sectional; Quant	6	General population (N = 22,555)	Regression	SOW
(Patil et al.) ¹⁰⁵	Investigate association between maternal PE and infant low birthweight.	PE; Pathogenic	U.S.A.	Cohort; Quant	4	General population (N = 2871)	Regression	GH
(Peckham et al.) ³⁰	Examine associations between EQ and health.	EQ; Ambivalent	U.S.A.	Analytic cross-sectional; Quant	7	General population (N = 5480)	Regression	GH, MH, OSH
(Peckham et al.) ¹⁰⁶	Explore whether EQ mediates gender-health relation.	EQ; Ambivalent	U.S.A.	Repeated cross-sectional; Quant	7	General population (N = 6367)	Counter-factual causal mediation	GH, MH
(Pfortner et al.) ¹⁰⁷	Analyze longitudinal association between PE and health.	PE; Pathogenic	Germany	Cohort; Quant	5	General population 18-67 y/o (N = 38,551)	Rgression	GH, MH
(Prioli Cordeiro et al.) ¹⁰⁹	Understand the ways labor experiences shape thought, feeling, and action.	PE; pathogenic	Brazil	Discourse analysis; Qual	7	Sub-contracted psychologists in social care services (N = 15)	Constructivist discourse analysis; no details provided	MH, SOW

(Continues)

TABLE 1 | (Continued)

Author (Year)	Study purpose ¹	Construct; stance ²	Country (ies)	Study design or form ³	Number of EQ dimensions included (7 possible)	Study population ⁴	Analytic approach ⁵	Safety, health, or well- being states ⁶
(Pyörriä et al.) ¹¹⁰	Analyze whether PE is associated with receiving disability pension for depression.	PE; Pathogenic	Finland	Registry-based longitudinal; Quant	3	General population 20-60 y/o (N = 15,338)	Regression	OSH
(Quinlan et al.) ¹¹¹	Understand the relation between PE and occupational safety and health.	PE; Pathogenic	Australia	Convergent interviewing; Qual	6	Home care workers employed by temporary agencies (N = 18)	Thematic analysis with emphasis on convergent findings	MH, PH, OSH
(Reuter et al.) ¹¹²	Investigate whether PE is associated with unwanted sexual attention or harassment.	PE; Pathogenic	33 European countries	Analytic cross-sectional; Quant	4	General population 15 y/o or older (N = 63, 966)	Regression	OSH
(Simões et al.) ¹¹⁸	To investigate the relations among PE, working conditions and health.	PE; Pathogenic	Brazil	Analytic cross-sectional; Quant	5	Bus drivers and conductors 40 y/o or younger (N = 1607)	Regression	GH, MH, PH
(Strazdins et al.) ¹¹⁹	Develop an index to measure parent job quality and its relation to well-being.	PE; Pathogenic	Australia	Analytic cross-sectional; Quant	3	General population of parents (N = 4778)	Regression	GH, MH, SOW
(Strazdins et al.) ¹²⁰	Investigate whether poor-quality jobs pose a psychological risk to employed parents.	PE; Pathogenic	Australia	Analytic cross-sectional; Quant	3	General population of parents (N = 5399)	Regression	MH
(Underhill and Quinlan) ¹²³	To explore Pressures, Disorganization, Regulatory Failures model to tie PE to occupational safety and health.	PE; Pathogenic	Australia	Not stated; Qual	7	Temporary agency workers, temporary workers hired directly, union officials (N = 38 from focus groups; N = 298 cases from workers' compensation claim document review)	Content analysis to assess ties between PE and injury	OSH

(Continues)

TABLE 1 | (Continued)

Author (Year)	Study purpose ¹	Construct; stance ²	Country (ies)	Study design or form ³	Number of EQ dimensions included (7 possible)	Study population ⁴	Analytic approach ⁵	Safety, health, or well- being states ⁶
(Valero et al.) ²⁴	Analyze relation between PE and mental health.	PE; Pathogenic	Spain	Analytic cross-sectional; Quant	5	General population 16-65 y/o (N = 3345)	Regression	MH
(Van Aerden et al.) ³¹	Examine health impact of labor market position.	EQ; Ambivalent	Belgium	Analytic cross-sectional; Quant	4	General population 18-64 y/o at baseline (N = 4377)	Regression	GH, MH
(Van Aerden et al.) ¹²⁴	Examine relation between employment arrangements and work-related well-being.	EQ; Ambivalent	31 European countries	Analytic cross-sectional; Quant	7	General population (N = 19, 213)	Regression	SOW
(Van Aerden et al.) ³²	Study the relation between EQ and health and well-being.	EQ; Ambivalent	27 European countries	Analytic cross-sectional; Quant	7	General population (N = 27, 325)	Regression	GH, SOW
(Vives et al.) ¹²⁶	To assess the association between PE and poor mental health.	PE; Pathogenic	Spain	Analytic cross-sectional; Quant	5	General population (N = 5679)	Regression	MH
(Vives et al.) ¹²⁷	Compare use of a multidimensional PE scale and a unidimensional approach to assess PE relation to health.	PE; Pathogenic	Chile	Analytic cross-sectional; Quant	5	General population (N = 3521)	Regression	GH, MH, OSH
(Vives et al.) ¹²⁸	Determine prevalence of PE and estimate proportion of cases of poor mental health attributable to PE.	PE; Pathogenic	Spain	Analytic cross-sectional; Quant	5	General population 16-65 y/o (N = 6777)	Regression	MH

(Continues)

TABLE 1 | (Continued)

Author (Year)	Study purpose ¹	Construct; stance ²	Country (ies)	Study design or form ³	Number of EQ dimensions included (7 possible)	Study population ⁴	Analytic approach ⁵	Safety, health, or well- being states ⁶
(Watson) ¹²⁹	Explore how changing economic conditions affect employment and working conditions.	PE; Pathogenic	UK	Not stated; Qual	5	Men record producers and engineers working in recording studios (N = 19)	Content analysis	GH, MH, PH, SOW

¹Only study purposes aligned with our review questions are presented here.

²Construct: PE, precarious employment (i.e., a study that examines the cumulation of unfavorable types of employment dimensions as a problematic-for-health, -safety, or -well-being exposure); EQ, employment quality (i.e., a study that explicitly examines a spectrum of cumulation of more and less favorable employment dimensions which are then assessed for their relation with safety, health, or well-being); Stance, studies characterized by a pathogenic, ambivalent, or salutogenic stance using study construct and purpose statements.

³Study design or form: Cohort, repeated cross-sectional, analytic cross-sectional, case/control, case study, phenomenology, grounded theory, ethnography, reflexive thematic analysis.

⁴Study population: sample drawn from general population, or from a specific industry, occupation, or organization, or organization; analytic sample size.

⁵Describes the approach taken in the analysis to examine the links between EQ/PE and safety, health and well-being.

⁶GH, General health; MH, mental health; PH, physical health; OSH, occupational safety or health; SOW, subjective or objective well-being.

Pathogenic: All PE studies; any EQ study whose purpose statement frames construct as a risk factor and/or presumes negative relations with health.

Ambivalent: Construct is other than PE; Neither risk factor nor salutary factor framing of construct or relations are presumed.

Salutogenic: Construct is other than PE; Stance frames construct as a salutary factor and/or presumes health-promoting aspects of employment exist.

commonly included were collective organization and training and employability opportunities, which were included in approximately half of the studies.

Thirteen studies included all seven dimensions of employment quality, with seven using primary data [69, 85, 86, 109, 123, 132, 133] and six using secondary sources [30, 32, 83, 100, 106, 124]. Among studies that included six dimensions (N = 12), most excluded either training and employability [60, 66, 104, 121] or collective organization [59, 81, 108, 111, 130]. Studies including five dimensions were the largest group (N = 23). In this category, nine of the studies excluded both training and employability and working time dimensions [24, 67, 87, 90, 93, 98, 99, 126–128], and these studies mostly used secondary data from Europe, Spain, Sweden, or Chile. Six of the five-dimension studies [63, 101, 114, 118, 125, 129] did not include training and employability and collective organization dimensions, one did not include interpersonal power and training and employability [107], and all these studies collected primary data. Studies that included four (N = 15) or three dimensions (N = 15) became much more varied in the dimensions used. Studies using the same data source but a different number of dimensions appeared to be doing so either because their research questions were specified such that a dimension might have been used as an independent variable, or because of changes to indicators included in the surveys across different data years.

3.4 | Analytic Treatment

Of the 78 included studies, 54 studies (69%) investigated employment quality dimensions as interrelated, with regard to their influence on health (Table 1). The number of dimensions used for analyses did not seem to coincide with treating them in an interrelated way, as, within number of dimension categories, majorities of studies did so in all categories except those studies using only three dimensions (seven dimensions 10/13 treated interrelatedly; six dimensions 7/12; five dimensions 18/23; four dimensions 12/15; three dimensions 7/15).

3.5 | Research Stance

Among studies that treated employment quality dimensions as interrelated in their analyses (Table 1), the most frequently studied outcomes across studies were mental health states (N = 52) and objective or subjective well-being states (N = 51; number of outcomes or health relations reported is greater than the number of studies because some studies assessed more than one outcome or health relation). The majority of these studies (N = 45) took a pathogenic stance on employment quality's relation to health, and this included two employment quality studies. A minority (N = 9) were ambivalent in stance, and none were considered to take a salutogenic stance. Prototypical examples of purpose statements categorized as pathogenic or ambivalent follow.

Pathogenic

- Investigate whether poor-quality jobs (without security, control, flexibility, or paid family leave) could pose a health risk to young children of employed parents or parents themselves [119].

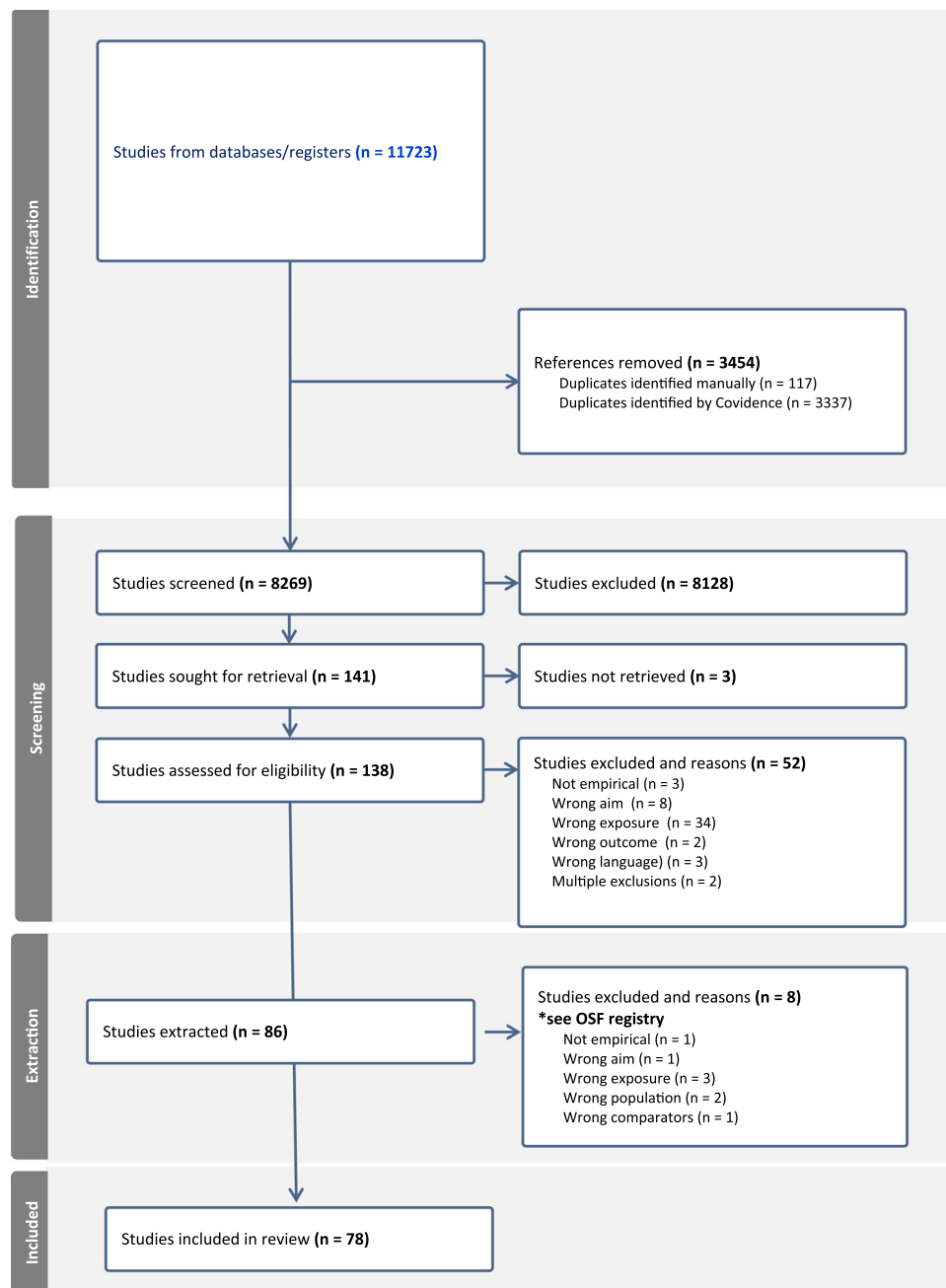


FIGURE 2 | PRISMA flow diagram. *OSF, Open Science Framework.

Ambivalent

- Examine the relationship between contemporary employment arrangements and the work-related well-being of European employees [32].

3.6 | The Complexities of Employment Quality, Health and Well-Being, and Improving Health

Of eleven studies categorized as those addressing employment quality more generally, nine took an ambivalent stance [30–32, 59, 80, 83, 84, 86, 88, 106, 124]. Despite their non-salutogenic framing, these studies have specific potential to highlight

various constellations of features of employment holding the potential to improve health. Results highlighted here focus only on those that might be considered potentially positive health findings for workers.

Nine of these studies used a quantitative approach [30–32, 80, 83, 84, 88, 106, 124]. All used the standard employment relationship (SER, SER-like, or the “optimal job”) as the reference category for statistical analyses and used statistical techniques to cluster people into groupings or trajectory groupings based on shared characteristics of employment. Three of these studies used data from the U.S. [30, 84, 106], and four used data from multiple European countries [31, 32, 83, 124]. Specific outcomes considered included self-rated health [30–32, 80, 83, 84, 106], general mental health [31, 32], mental illnesses, psychological

distress, frequent mental distress [30, 80, 88, 106], depression [84], occupational injury [30], perceived safety climate, and ability to stay in employment until age 60 [124] as outcomes. All studies published in 2017 or later except one [106] began to include categories of self-employed workers in their analyses.

Several forms of more advantageous employment and self-employment in the quantitative papers found these types of employment to be similar in health risk or more protective against poor health than the SER reference category. In the employment category, summarizing descriptors the authors of the studies use, these types include:

- *Portfolio employment*, or employment that has overall beneficial conditions and relations of employment such as high stability and pay, balanced power relations, control over schedules, and opportunity, but often long or intensive hours [30, 124];
- *Instrumental employment*, or employment that is stable and with good working time arrangements, but fewer opportunities for development and additional benefits and poorer power relations than the SER, such that it is transactional [124];
- and
- *Stably high-wage/economically good employment*, which resembles the SER but with higher wages, longer working hours, and lesser union membership in [80, 84].

Though there is nuance depending on the geographic location of the study and specific outcome of focus, studies have found a similar protective benefit from poor health among portfolio employment [30, 31, 83, 124], instrumental employment [31, 124], and in economically favorable employment [84] compared to the reference standard or “optimal” job category. In two studies, a more protective health effect was found compared to the standard arrangement—one for men in trajectories characterized by high-wage employment [80] and one for workers in instrumental employment [32]. Conversely, a study also found portfolio employment to be a greater health risk than standard relationships for women [32].

In the self-employment category, the types that were not different or demonstrated a lower health risk than the SER were:

- *Small and medium-sized employers*, who are financially well-off with good employment conditions, choose to become self-employed, and employ a few others [83];
- *Skilled contractors*, who earn high pay and enjoy balanced interpersonal power relations with opportunities for development, but have long and excessive hours [30];
- *Stable own-account/self-employed/consistently self-employed* (trajectory analysis), who have stable incomes, multiple clients, and choose to be self-employed, as well as moderate working hours, balanced interpersonal power relations, and formal training [83].
- *Wealthy self-employed* [80] (trajectory analysis) resemble SER-like and stably high-wage workers across dimensions of EQ, but transitioned into self-employment at a more advanced age.

In this category and across distinct outcomes, researchers found that *small and medium-sized employers* and *variously termed self-employed* people without employees did not differ [31, 83] or were more protected, health-wise, than the SER depending on the specific outcome [83, 88]. *Skilled contractors* were also not more likely to have poorer results than those in SER [30]. Finally, the *wealthy self-employed*, a group that was composed only of men in this study, were less likely to report poor health than those in the SER [80].

Two qualitative studies with people engaged in temporary agency employment [59] and both staff and freelance workers in music, television, and magazine cultural sectors [86] highlighted aspects of employment circumstances explicitly valued by the participants. Across the two studies, these were freedom from structural impositions of work, greater autonomy to influence the relative place of work in one's life, and some power of choice over what work to take. The studies describe significant nuance wherein these positives were couched in management of multiple drawbacks; as the title of one of the studies put it, “a very complicated version of freedom” [86].

In summary, even in studies pursuing employment quality generally, with ambivalently framed purposes, the health outcome variables assessed were ones that were undesired. That is, studies characterized employment as health protecting because they identified which groupings of employment features could be tied to less of an unfavorable outcome. Despite this, studies highlight some patterns that could direct future research in clearer exploration of any health-promoting potential of employment, as persons in some employment quality groupings were found to have “less bad” outcomes than those in the standard employment relationship, and qualitative studies pointed to some aspects of employment relationships that were valued by workers for their contributions to more balanced well-being. These findings existed across groups employed by others and those who were self-employed.

4 | Discussion

4.1 | Overall Contributions of This Review

In this scoping review, we add to what is known about employment quality, health, and well-being by focusing our conceptualization of employment and the role it might have on workers' health towards potential health-promoting aspects, which in turn shaped our inclusion/exclusion criteria, data extraction, and analyses. Different than existing reviews on precarious employment, we included only studies that contained at least three employment quality dimensions, treated as multidimensional analytically. We did this because failure to do so might mean researchers were studying a construct more limited than employment quality, and because certain analytic treatment, even of multiple dimensions, amounts to assessing the impact of one dimension at a time on health and well-being [7]. We included qualitative and quantitative studies and used a convergent mixed-method synthesis of evidence approach to include both qualitative and quantitative findings. We specified our extraction such that we were able to consider the findings

from both study forms together to comprehensively consider the state of knowledge and its implications.

4.2 | Limited Evidence for Better Employment Quality as a Health-Promoting Tool

We did not identify research that clearly points to employment as a resource to be leveraged for improved population health. Because of the conceptual common ground [5] that underpins both precarious employment and employment quality, our search included terms related to both. We initially presumed that using employment quality as a construct, instead of precarious employment, would be sufficient to delineate those studies that *might* be employing a salutogenic stance, and thus coded studies one way or the other at extraction. Our review suggests that in the literature to date this is not an accurate presumption. In fact, of the eleven studies that were employment quality (not precarious employment) studies, none presented an explicitly salutogenic purpose, and some of the employment quality studies were conceptually pathogenic because they intended to explore employment circumstances for their degree of health harm, rather than for employment's capacity to advance health.

Thus, when not limited to the precarious employment configuration of an employment quality conceptual array, the scope of what is known is similar to what is known about precarious employment. This is true in the stance researchers take on health, safety, and well-being. It is also true in the outcomes researchers choose to study in research about employment quality beyond the precarious employment part of the spectrum. Outcomes chosen by researchers are largely the same as those studied when the focus is precarious employment. Specifically, previous reviews [19–24] have established that precarious employment is tied to poorer health and well-being compared to people in the standard employment relationship. Our review highlights that broader-focused employment quality investigations, like precarious employment ones, have also most frequently looked for ties to mental health and subjective and objective well-being states. There is relatively less information about how employment quality might be tied to general physical health or occupational conditions.

We found some suggestions that certain employment situations across the employed and self-employed might offer similar health-related circumstances (rather than worse) or offer some health-protective advantage over the standard employment relationship. We also identified some hints as to where further exploration of why and what the limits of those findings might be would be useful. The employment quality studies that used quantitative approaches suggested that there may be certain forms of employment and self-employment that are more protective of health than the presumed ideal circumstance. Recently, authors [136] have asserted that non-standard and precariously employed workers navigate a complicated balancing exercise between different “payoffs” and “tradeoffs” associated with their employment. Our review also provides evidence of this characterization, finding similar patterns across two qualitative studies; in particular, they highlight aspects of

freedom and self-determination about the relative place of work in one's life. Combined, the qualitative and quantitative studies suggest that it is worth exploring what, specifically, about certain forms of employment or self-employment is contributing to these findings, how it does so, whether payoffs and tradeoffs are similar across social groups, industry and occupational experiences, and, crucially, the degree to which any tradeoffs make benefits neutral in their impact on health.

There appear to be ongoing challenges to doing employment quality/health research, however, because while employment quality is widely recognized as multidimensional, treating it as such in analyses is not a ubiquitous approach. Our review suggests that, as progress is made in monitoring employment quality, the clearest way to do multi-dimensional employment quality research may be through primary data collection, as we might infer that only a few existing data sources have items to be used across all dimensions. Furthermore, from the frequency of dimensions used across papers, it seems that certain dimensions of employment quality weigh, in a conceptual sense, heavily on what we know. These dimensions are material rewards and employment stability, which are considered conceptually fundamental to both precarious employment and broader employment quality because they are basic to life circumstances required for health. It is plausible that there is more to learn about the possible health-promoting influence of these dimensions in combination with other, less frequently included ones. However, the number of dimensions researchers used does not seem to coincide with treating them in an interrelated way analytically. *Within* groupings of studies by a number of dimensions used in the study (i.e., studies employing 6 dimensions, 7 dimensions...), the majority of studies used analyses that treated dimensions as interrelated. *Across* the total number of studies included in our review, however, only about 70% of studies did so.

5 | Implications for Employment Quality Research

One implication of our review is that challenges to developing the knowledge base about employment quality and health, safety, and well-being may not only be methodological or technical ones (e.g., data sources, using qualitative or quantitative methods, having analytic techniques that allow us to do what we envision with dimensions), but also ones related to incentives in research infrastructure that focus on disease or injury rather than good health, along with the language, worldview, and beliefs about worthy knowledge that researchers, themselves, hold. Specifically, if much of employment quality research is developed from and fits itself into a biomedical stance, or influenced by only a negative normative framing of precarious employment, then we will have a hard time surmounting the idea that our studies are to explore a deleterious exposure and lead to an unwanted condition or disease. Our review suggests that employment quality studies tell us *how to harm health less than precarious employment and sometimes less than the standard employment relationship, but still do not tell us about whether and how employment can be developed to promote a sense that life is manageable, meaningful,*

and understandable [44–47]. That is, we have not identified any evidence that clearly shows ways good employment quality might be salutogenic.

5.1 | Additional Theorizing Might Advance Population Health and Health Equity

Employment quality and health are both complex constructs and researchers' theoretical frames:

- Denote their understanding of the mechanisms that tie them together;
- shape whether they situate employment quality within economic systems;
- determine whether they emphasize employment relations as health-harming, health-promoting, or both, and;
- guide their choices related to concepts that describe them, such as dimensions used to characterize employment quality, and the endpoints of interest they choose.

Because improving population health and health equity requires that the population's current state of health be protected *and* advanced [9], as we make needed progress on aligning employment quality with the goal of health protection by acting on precarious employment, there is a need to explore whether and how employment quality might be a tool for advancing population health. If we are to explore employment quality as something that might be salutogenic and useable for such purposes at the population level, we must reframe our scholarly orientations to be inclusive of additional perspectives about health and additional perspectives on employment quality's origins and impacts.

We might try any of the following as a start.

- Envision a way out of thinking only about individuals and particular pathologies or disorders to consider how dimensions of employment quality might work together to enrich work as an asset for health. For instance, several studies in our review and elsewhere suggest that challenge, change, freedom, and self-determination counterbalance the negative features of precarious employment [59, 86, 136]. In all these studies, however, the positive aspects of employment are very much intertwined with challenges for workers, which align with what research has taught us undermine health, safety, and well-being. That is, our state of knowledge describes some reasons workers might prefer or make the best of certain employment qualities and use them to counter deprivation and employment's frictions with other parts of life [34]. These ideas and more could all be specifically explored for the ways in which they might or might not function as assets for health rather than as counters to risk. This is a place where additional, careful theorizing is warranted, since relational theories that underlie precarious employment's ties to health, and those explaining social patterning of health inequalities more broadly, tend to focus on pathways to undermined health. Pathways through which health is improved through

employment, rather than maintained or undermined—if they exist—may be different [47]. Such theorizing might also highlight ways in which features of societies that structure employment possibilities for various social groups are compatible or not with employment as a way to improve health equity.

- Consider the ways in which employment quality contributes to the health and life chances of individuals and social groups especially supported by high-quality employment. Greater understanding of the ways employment quality shapes and maintains advantages in some groups through, for example, power to pick and choose employment circumstances, and the experience of control and freedom to shape life conditions, could illuminate areas of focus for EQ research using a salutogenic stance.
- Explore employment quality's relations with outcomes we wish to foment rather than those we wish to avoid. Primary research of any sort and much qualitative research are not limited to variables already collected and present in sources of data. A reasonable first step for secondary quantitative studies might be to think about how groupings of employment quality in which people fare less poorly might be studied for their ties to peoples' overall self-rated health. Self-rated health is already known to be predictive of mortality and morbidity [137, 138], but also health expectancy (i.e., self-rating as 'excellent' or 'good' health) [139]. Understanding how employment quality might relate to the desired end of measures like self-rated health might advance our thinking about its health-promoting possibilities. Self-rated health also has the benefit of being readily available in many datasets.

These examples are only some of the ways in which employment quality researchers could help to understand whether and how specific qualities of employment might be a potential pathway toward individual and population health improvement, or whether we should think of better employment primarily as a way to protect a current state of health.

5.2 | Implications of Enriched Employment/Well-Being Theorizing for Knowledge Use

In addition to a more fully developed knowledge base, the above research would have implications for the use of research. Foremost, we wish to make clear that identifying a need to understand more about whether better forms of employment can be health-promoting does not suggest that we de-prioritize using what we know about precarious employment to make changes to employment that would better protect health. On the contrary, there is ample evidence of precarious employment's inequitable social distributions and harms to justify changes to employment and its drivers, and the public health community should continue to work for progress in limiting harms from poor-quality employment. Yet, we also know it is not enough to be free from disease or infirmity [140] to say we have individual or population health, and we see several practical advantages to providing additional evidence about whether specific employment qualities can be health-promoting, as well. First, in a reality of multiple challenges to population health and well-

being that compete for attention and resources, speaking to and addressing employment quality from the stances of both health protection and health promotion involves more professionals. Involving differently-focused professional groups allows us to bring more people along to address a very important social determinant of health, health equity, and their structural drivers. The same logic holds for people working in other spheres of economic and political life and for the general public. The motivations of each group might be better addressed by health promotion or health protection framing, if both apply to employment quality. Appealing to more actors might increase employment quality's presence in broader societal conversation, and thus increase the likelihood of the development, implementation, maintenance, and expansion of interventions. Second, whether we know better employment quality to be health-protective, health-promoting, or both, as well as why and how, informs what suite of interventions we might prioritize. Perhaps as important, such knowledge would inform what we might expect interventions to produce in the pursuit of improved population health and greater health equity. That is, the likelihood of successful intervention development and maintenance may depend on being able to draw on the 'spirit' of evidence backed by different theories of function that converge and show a direction we might wish to pursue [141].

5.3 | Strengths and Limitations

Our review has some limitations. First, because of the language skills of our research team and the two-screener requirements, we only considered studies reported in English or Spanish. We also excluded gray literature. It is possible that the gray literature and literature not written in English or Spanish contains relevant employment quality research that our review does not assess. Likewise, we may have missed studies in our searches that do not use precarious employment, employment quality, or the additional terminology we chose to refer to specific dimensions in our searches. Therefore, there may be salutogenically framed studies related to employment quality that are not included here. Furthermore, our characterization of precarious employment studies as necessarily pathogenic in stance might be viewed as insufficiently nuanced since it was based only on a study's purpose statements and might miss more subtle framing throughout other portions of a paper. Moreover, there are several different theoretical strands underpinning precarious employment research, and such detail is not our focus here. While we acknowledge these limitations, it is also true that study constructs of focus, aims, and purposes shape all decisions made in a study, and therefore it is a direct way to initially characterize the literature. Furthermore, only one study [59] in our review specifically sought out factors related to employment or its impact that might be viewed as positive for worker well-being. Likewise, our characterization of findings, as is typical for a scoping review [51, 52], are high-level rather than detailed, and should be interpreted as such. For instance, while our study adds to broader conversations about job quality and decent work by highlighting employment features relevant to these constructs, we did not conduct our analyses along the lines of occupation, which plays a large role in formulations of quality of work [142]. Moreover, the nature of work in specific

occupations is likely intertwined with the employment quality available for that work because of both the nature of the work itself and societal beliefs about the value of that work and those occupations [143]. Societal value attributed to specific work underpins legal and political choices that continue to shape employment, working conditions, and overall job quality. Our purpose here, however, was to explore the stances and approaches that have been taken in employment quality and health research that shape the degree to which we know whether better employment promotes health, or only limits the undermining of health and well-being. Our study's limitations are tempered by a process that aimed to balance inclusivity for sources with specificity. Specifically, we employed a librarian-assisted search strategy, with 35 searches in several major databases, a focus on studies that include multiple dimensions of employment quality, a combined deductive and inductive approach to winnow to those studies most useful to answering our review questions, and a novel perspective used in specific analyses that seek to identify any health-promoting aspects of employment quality to complement our knowledge about the health harms caused by precarious employment.

6 | Conclusions

This scoping review has highlighted a lack of evidence about whether employment with specific quality features that result from its terms and conditions might *improve* health. It has also highlighted areas where further research with a salutogenic stance might build our understanding of whether, how, and under what labor market, political, and cultural circumstances employment might advance our collective well-being.

Author Contributions

Emily Q. Ahonen: conceptualization, data curation, formal analysis, investigation, methodology, project administration, validation, visualization, writing—original draft, writing—review and editing. **Megan R. Winkler:** conceptualization, data curation, investigation, methodology, writing—review and editing. **Kim Bosmans:** investigation, writing—review and editing. **Virginia Gunn:** investigation, writing—review and editing. **Mireia Julià:** investigation, writing—review and editing.

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Disclosure by AJIM Editor of Record

John Meyer declares that he has no conflict of interest in the review and publication decision regarding this article.

Ethics Statement

Since this research relies on already-published research and does not involve human subjects, human subjects research approval was not required.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are openly available in Open Science Framework at <https://osf.io/nrmp5/>.

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