Introduction

Review question / Objective How does precarious work influence daily life? Objectives: To identify the features of precarious work in Europe and illuminate the influence of precarious work on daily life. The issue of precarious work is a topic of interest at European level (European Parliament, 2017). The impact of precarious work on health is challenging to ascertain due to the lack of an agreed definition of precarious work and non-standard contractual arrangements resulting in a lack of statistical recording. However, stress and uncertainty arising from precarious work has been linked with poor mental health (Julià et al., 2017). A study from Germany showed that precarious work is a risk factor for increase in depressive symptoms over a 5-year period (Demiral et al., 2022). Not only stress and mental health issues are problematic, as most workplace accidents in the EU (including fatal or near fatal accidents) are most common in sectors where precarious work is common (construction, manufacturing, transportation/storage, and agriculture) (Eurostat, 2023). Furthermore, exposure to unemployment, job insecurity and insufficient workhours may predict chronic conditions. and an association with receiving disability pension (Pyörä et al., 2021). The main concern of policymakers at European and national levels is the negative impact on working conditions. It is acknowledged that these jobs fail to give workers notably skills recognition and improvement and adequate resources especially adequate financial resources (Eurofound, 2018). Whilst associations have been made between precarious work and health, the relationship between precarious work and other areas of daily life have received little attention and further exploration is warranted.

Background There are a multitude of heterogenous definitions of precarious work e.g., ILO (Labour & Organization, 2012) and Standings (2011). However, despite the lack of a common definition of precarious work (Kreshpaj et al., 2020) due to different organizational and legal contexts (Kalleberg, 2021) and disciplines such as
occupational health, sociology and economy, there is overall agreement on some fundamental issues explicitly identified in Kreshpaj et al’s (2020) review. The identified issues by Kreshpaj et al, (2020) are employment insecurity, income inadequacy and lack of rights and protection, which is in line with the definition from the EU parliament (2017) who adopted the following definition for precarious work: “employment which does not comply with EU, international and national standards and laws and/or does not provide sufficient resources for a decent life”.

The phenomenon of precarious work has been accentuated worldwide and in Europe since the global financial crisis of 2008 (United Nations, 2011). Also, in the aftermath of the financial crisis neoliberal policies manifested in austerity measures were introduced in many countries. These measures together with an increased globalization and digitalization further increased both the numbers reliant on precarious work and the challenges they face (Caldbick et al., 2014; Kalleberg, 2021; Mehta et al., 2021; Nations, 2011; Vilar-Figueira et al., 2022). Europe is here defined as the EU member states, including the EEA states and the United Kingdom (UK).

Precarious work in Europe
Precarious work is a growing issue in Europe (Eurofound, 2018), despite an overall long tradition of decent working circumstances with legislation for worker protection (Gutiérrez-Barbarrusa, 2016). The estimated share of precarious work in Europe differs between sources. E.g., Eurostat (2020) estimates between 0.2 % and 5 % depending on country, while Matilla -Santander et al., (2022) estimate as much as two out of three employments are precarious. Despite differences in estimated share there is consensus on precarious work as a growing issue in Europe and that it mainly impacts vulnerable populations (Kalleberg, 2018), which has been explicitly revealed during the pandemic. The growth of precarious work in Europe has led to a dualization of the labour market with a protected core workforce and a peripheral less protected workforce consisting mainly of vulnerable groups of people (Kalleberg, 2018). Health problems, and death rates related to covid, increased not only related to comorbidity and age but also related to socioeconomic disadvantaged groups such as migrants and lower educated and thus worked as an exacerbator of already existing structural socioeconomic inequalities (Côté et al., 2021). The existing structural socioeconomic inequalities that result in precarious work may thus create conditions that enhance vulnerability. It could be assumed that the interlocking systems of the structural socioeconomic climate affects those who are most marginalized in society in relation to gender, poverty, immigration, disability etc.

Intersectional perspective
The breadth and scope apparent in definitions of precarious work indicates that it can be experienced in diverse ways and by different populations (Kreshpaj et al., 2020). Within this review we acknowledge the variety of experiences whilst recognizing that some groups face multiple levels of challenge which manifest as hypervulnerability. The existing evidence recognizes ‘intersecting inequalities’ (Buckingham et al., 2020) in precarious work, where multiple factors increase precarity and heighten the impact of precarious work (Petica-Harris et al., 2023). Within this review we wish to acknowledge the intersecting identities which increased the likelihood and impact of precarious work.

Rationale
The issue of precarious work is a topic of interest at European level. This review will take an occupational science perspective on the ramifications of precarious work on daily life, as this has not yet been described.

Occupational science perspective
Within occupational science and occupational therapy, occupation is not only understood as work but also encompasses the wide variety of ‘doing’ in daily life in a specific context (Wilcock & Hocking, 2015). This is based on the assumption that people have an innate need to engage in occupations through doing, not only for survival and health but also for flourishing (Wilcock & Hocking, 2015). Thus, by taking an occupational science perspective we want to move focus from solely health towards people’s opportunities to take part in valued occupations in everyday life and thus create a “decent life” (Hammell, 2022; European Parliament, 2017; Wilcock & Hocking, 2015).

The ability to engage in doings of daily life is dependent on structural factors, such as legal, cultural, and economical structures. The structures that allow a rising amount of precarious work with limited security and inadequate income, limits the opportunities for engagements in occupation and the ability to flourish and thus is not in accordance with the Eurofound resolution (2018) that paid work should provide sufficient resources for a dignified life. As scholars in the occupational science and occupational therapy disciplines health is a significant and important issue, however, our focus is on doing and being in daily life, that is not only having a decent job but also having a dignified daily life.
Precarious work and daily life
While the association between precarious work in relation to health has been studied (Bhattacharya & Ray, 2021; Pulford et al., 2022), the relationship between precarious work and other areas of daily life warrants greater exploration. One of the exceptions is Kalleberg (2018) and Pembroke (2022) who illuminates how precarious work inhibits life transitions and opportunities to develop other parts of daily life, such as transition from home of origin or starting a family and the impact of precarious employment on other parts of daily life.

Even though the European countries the share of precarious employment differs considerably (Eurostat, 2020) our focus is Europe as we are ruled by the same or similar regulations on employment (European Commission). Widening the study beyond Europe would undermine opportunities for comparison or generalization due to significant differences in policies and protections. Also, the Jobs Strategy maintained by the OECD is endorsed by all European countries (OECD, 2018), thus serving as a unifying idea. The Jobs Strategy is referred to as important in promoting economic growth and demands that as many people as possible take part in the labour market (European Parliament, 2023). Thus, illuminating the differences between different countries with similar approaches, but different cultural norms around work, we may be able to capture nuances that reflect the experiences of precarious work and employment in Europe.

METHODS

Strategy of data synthesis This scoping review will be conducted in accordance with the JBI methodology for scoping reviews (Peters et al., 2020) and reporting will adhere to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018).

Strategy and data synthesis
An initial exploratory search of European policy documents, MEDLINE and CINAHL was undertaken to develop keyword search terms. The initial search strategy has been reviewed and refined with the support of two librarians at Queen Margaret University and Jönköping University. Search terms will be adapted for each database, but an example of index terms and key words used to search is provided below in table 1. This scoping review aims to locate scientific primary studies. Published studies will be identified through a comprehensive search of the literature in the following electronic databases presented below. The databases have been selected as the main databases in the fields of health sciences, psychology, economic and social sciences.

- Applied Social Sciences Index & Abstracts (ASSIA) (ProQuest)
- Medline (EBSCOhost)
- Scopus (Elsevier)
- ABI/Inform Collection (ProQuest)
- Sociological Abstracts (ProQuest)
- Web of Science Core Collection (SCI-Expanded, SSCI, AHCI, ESCI).

Query
#1 TI ( (casual OR exploit* OR inadequate OR informal OR insecure OR irregular OR marginal OR "non-standard" OR "non standard" OR precarious OR season* OR secure OR tempo* OR undeclare* OR uncertain") N1 (work OR job OR employment) ) OR AB ( (casual OR exploit* OR inadequate OR informal OR insecure OR irregular OR marginal OR "non-standard" OR "non standard" OR precarious OR season* OR secure OR tempo* OR undeclare* OR uncertain") N1 (work OR job OR employment) ) OR SU ( (casual OR exploit* OR inadequate OR informal OR insecure OR irregular OR marginal OR "non-standard" OR "non standard" OR precarious OR season* OR secure OR tempo* OR undeclare* OR uncertain") N1 (work OR job OR employment) )
#2 TI ( "(gig econom*" OR "multiple jobholding" OR underemploy* OR "modern slavery") ) OR AB ( "(gig econom*" OR "multiple jobholding" OR underemploy* OR "modern slavery") ) OR SU ( "(gig econom*" OR "multiple jobholding" OR underemploy* OR "modern slavery") )
#3 #1 OR #2
#4 (MH "Health") OR (MH "Women’s Health") OR (MH "Mental Health") OR (MH "Men’s Health")
#5 TI ( (health OR well-being OR "well being" OR "daily life" OR "daily activity"" OR "everyday life") ) OR AB ( (health OR well-being OR "well being" OR "daily life" OR "daily activity"" OR "everyday life") ) OR SU ( (health OR well-being OR "well being" OR "daily life" OR "daily activity"" OR "everyday life") )
#6 #4 OR #5
#7 #3 AND #6
#8
Limit to: Published Date: 20080101-20231231
Narrow by Language: - Norwegian
Narrow by Language: - Spanish; Castilian
Narrow by Language: - English

Gray literature will be located. The following sources for unpublished studies and gray literature
will be by searching Google/Google Scholar, GreyNet, and Scopus. A screening of the reference list of all selected publications will be reviewed independently by two authors.

**Eligibility criteria** This scoping review will consider studies based on empirical and theoretical research methods. The inclusion criteria are as follows:

- Original empirical-based research studies performed in Europe.
- Original studies or reports concerning the experience of those who are in precarious work.
- The studies investigate precarious work in Europe.
- Published between 2008-2023
- The author group are proficient in the following languages, which will be included: English, Swedish, Danish, Spanish, and Norwegian
- The study considers the influences on the daily lives of people performing precarious work in Europe.

**Source of evidence screening and selection** Duplicates will be identified with Deduplicator, Institute for Evidence-Based Healthcare, Bond University (https://sr-accelerator.com/#/deduplicator), Relaxed Algorithm. The pool of articles will be entered to the Rayyan platform that (https://www.rayyan.ai/) will be used to allow reviewers to apply inclusion and exclusion criteria independently and blinded to each other's work. Reviewers will work in pairs to assess relevance of articles based on title and abstract in Rayyan blind-on mode. Thereafter with the blinding function off, any inconsistencies between the reviewers regarding in/exclusion of a full-text article will be resolved by consulting a third reviewer. Full text articles will be read by two independent reviewers who will assess each article for full-text eligibility based on the inclusion and exclusion criteria, before deciding on inclusion in the review. The individual decisions will be entered to Rayyan in blind-on mode. Any disagreement regarding study selection for final inclusion, identified after blind-off will be solved by the further consideration and decision from the entire research group. The review procedure on full text articles will be calibrated through a review and “grading” of five common articles by the research group.

**Data management** A data extraction table will be developed and piloted collaboratively by the reviewers and modifications will be reported in the final scoping review. Data extracted will include author, year, geographical location, characteristics of participants, context of the study, nature of precarious aspects of employment, impact upon daily life, study methods, key findings, study limitations, future directions.

**Reporting results / Analysis of the evidence** The results presented in the findings will aim to answer the research questions by mapping the reviewed research literature from Europe in accordance with publication volume, publication date and geographical context. It will furthermore characterize the identified research results related to target groups applied in the peer-reviewed literature. Hence, the details of the included studies details, e.g. participants, concepts, context, study methods and key findings relevant to the review questions will be presented in an extended and detailed table (with the included research studies). Data/the included studies will be analysed following descriptive thematic analysis, and the descriptive findings will be presented in a comprehensive narrative summary and discussion.

**Presentation of the results** The results will be presented in a descriptive thematic analysis as well as in tables. Details of the included studies, e.g. participants, concepts, context, study methods and their key findings relevant to the review questions will be presented in an extended and detailed table. Data/the included studies will be analysed following a descriptive thematic analysis. Findings will be presented in a comprehensive narrative summary and discussion. The process of the review and literature inclusion will be documented in a PRISMA flowdiagram.

**Language restriction** English, Danish, Swedish, Norwegian, Spanish.

**Country(ies) involved** Sweden, United Kingdom, Spain.

**Keywords** Occupational science; daily life; intersectionality.

**Dissemination plans** The review will be published in the Journal Work and furthermore on relevant conferences.

**Contributions of each author**
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