



Discussion

Non-Permanent Employment and Employees' Health in the Context of Sustainable HRM with a Focus on Poland

Katarzyna Piwowar-Sulej *  and Dominika Bąk-Grabowska 

Department of Labor, Capital and Innovation, Wrocław University of Economics and Business, Komandorska 118/120, 53-345 Wrocław, Poland; dominika.bak-grabowska@ue.wroc.pl

* Correspondence: katarzyna.piwowar-sulej@ue.wroc.pl; Tel.: +48-503-129-991

Received: 8 June 2020; Accepted: 1 July 2020; Published: 7 July 2020



Abstract: This study is focused on the assumption that the analyses focused on sustainable human resource management (HRM) should include the problem of unstable forms of employment. Reference was also made to Poland, the country where the share of unstable forms of employment is the highest in the European Union. The authors based their findings on the literature and the data published, i.e., by Eurostat, OECD and Statistics Poland, accompanied by CSR reports. Insecure forms of employment have negative impact on employees' health, primarily regarding their mental health. Statistically significant correlations were found between the expectation rate of possible job loss and non-standard employment variables, and the rate of reporting exposure to risk factors that affect mental wellbeing and precarious employment rates. However, conducting statistical analyses at the macro level is associated with limitations resulting from leaving out many important factors characteristic of the given countries and affecting the presented data. Current guidelines, relevant to reporting the use of non-standard forms of employment by enterprises, are inconsistent. Companies voluntarily demonstrate the scope of using non-permanent forms of employment and not referring to the issue of employees' choice of a given type of employment and employees' health. Future research projects should be focused on developing a comprehensive, coherent and universal tool allowing for an assessment of the implementation level of sustainable HRM ideas in an organization, including standardized reporting of non-permanent employment and employees' health, and making comparisons not only between organizations, but also between countries.

Keywords: non-permanent employment; flexible forms of employment; unstable employment; health; wellbeing; sustainable human resources management

1. Introduction

The definition of sustainability is 'meeting the needs of the present generation without compromising the ability of future generations to meet their needs' (WCED—World Commission on Environment and Development 1987, p. 43). The successful implementation of such a philosophy requires both competent and motivated people. Therefore, the focus has to be placed on human resource management (HRM), defined as a spectrum of managerial activities related to the recruitment, development and retention of competent employees (Truss et al. 2012). Hence, the concept of sustainability is associated with HRM in the form of sustainability-oriented HRM (Wagner 2013), sustainable HRM (Ehnert et al. 2014), socially responsible HRM (Cohen 2010; Becker 2011; López-Fernández et al. 2018) and green HRM (Jackson and Seo 2010; Chaudhary 2018).

The Triple Bottom Line concept, fundamental in terms of sustainability, consists of three basic components—environmental, economic and social sustainability—and is used by organizations to

assess the profits made as a result of their sustainability practices (Arowoshegbe and Emmanuel 2016). The social bottom line, in the context of the employees' needs, can be improved through fair and beneficial labor practices. Health is included among the three components of sustainable employability (Van der Klink et al. 2016). The authors have adopted the belief that fair practices should refer not only to ensuring healthy working conditions, but also to providing fit forms of employment.

The basic division of forms of employment is based on the criterion of contract duration. Traditional or standard employment is associated with an open-ended and continuous employment contract. According to the research carried out for the European Parliament in 2016, the incidence of standard open-ended, full-time contracts declined from 62% in 2003 to 59% in 2014 (Eurofound 2018). Nowadays, new forms of employment, significantly different from the traditional ones, are emerging. Non-permanent work forms (alternatively referred to as flexible work arrangements, limited-duration contracts, temporary employment or atypical contracts) constitute an increasingly substantial proportion of employment across much of Western Europe. These can be defined as all forms of employment apart from limited-duration contracts—the main types being employment based on fixed-term contracts, temporary agency work and casual or seasonal work (Eurofound 2002). Limited-duration contracts are also popular in other European countries. They represent one of the three precarious employment components (Olsthoorn 2014). Moreover, a significant number of studies confirm that flexible forms of employment have a negative impact on employees' health (Aronsson and Göransson 1999; Virtanen et al. 2005a). This impact is primarily visible in relation to the employees' mental health. However, the consequences of employees' mental disorders can cause problems with physical health.

In view of the above, the following assumptions can be made:

- sustainable HRM should be performed by offering appropriate forms of employment,
- appropriate forms of employment have a positive influence on employees' health.

The main purpose of this paper is to present the problem of non-permanent employees' health in the context of sustainable HRM and the situation in Poland. There is a high limited-duration contracts rate in many countries. However, a particularly high percentage of persons employed based on such forms of employment is recorded in Poland. This fact justifies focusing on the data from this country.

Since non-standard forms of work have become popular since the 1980s, the agreements between the EU-level social partners were signed and later implemented via Council Directive 1999/70/EC of 28 June 1999 concerning the framework agreement on fixed-term work concluded by such cross-industry organizations as ETUC, UNICE and CEEP. The agreement objective is to improve fixed-term work conditions by ensuring compliance with the principle of non-discrimination and establishing a framework to prevent excessive use of subsequent fixed-term employment contracts or employment relationships. Poland is a member of the EU structures, however, which are also characterized by a high level of non-permanent work forms.

Unstable forms of employment provide employers with the opportunity to shape employment more flexibly, in a fit-out approach. This factor can become more important in periods of high uncertainty for running a business, which nowadays can be associated with the COVID-19 pandemic.

The research questions formulated for this study are as follows:

RQ1: How are the relationships between sustainable HRM, flexible forms of employment and employees' health presented in the subject literature?

RQ2: What is the situation in Poland in comparison to the EU average?

RQ3: What are the current reporting options regarding the aforementioned relationships?

RQ4: What are the implications for future research addressing the problem of "sustainable HRM—flexible forms of employment—employees' health"?

For the purposes of this paper, the authors performed subject literature studies and research based on Eurostat data. The remaining part of the paper has been organized as follows. Its second section provides the literature background. The analyzed concept of sustainable HRM is described

and the research findings on the relationship between the discussed concept and the issue of forms of employment are then presented. Next, the relationship between employee health and non-permanent employment is examined. The third section is devoted to the respective methodology and the research results. The obtained outcomes are also considered in the perspective of the above-presented literature studies. The assessment and conclusions are based on desk research. The concluding section summarizes the findings and offers directions for future research.

2. Literature Background

2.1. From Sustainability to Sustainable HRM

The concept of sustainability has received more attention since the publication of the United Nation's Brundtland Commission (Brundtland 1987), emphasizing the importance of retaining the world's natural resources for future generations. The Brundtland Commission presented a broad approach to sustainable development including global, long-term actions and the needs of a variety of stakeholders. Moreover, it identified the three pillars of sustainable development: economic, social and environmental. Since then, a heated debate addressing sustainability has been going on, covering global issues and environmental impacts (Stalcup et al. 2014; Magon et al. 2018; Rosen 2018; Azevedo et al. 2019). It has also encouraged the adoption of "business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining and enhancing the human and natural resources that will be needed in the future" ((Institute for Sustainable Development et al. 1992) cited in (Labuschagne et al. 2005, p. 373)).

As mentioned in the Introduction section, various authors use different terms to describe HRM in a sustainable organization. For example, Wagner (2013, p. 443) defines a '... sustainability-oriented human resource management as management of human resources that meets the current needs of a firm and society at large without compromising their ability to meet any future needs'. Although the term "sustainable HRM" is the most popular one in the subject literature, there is no binding definition in this respect.

Sustainable HRM, according to particular authors (e.g., (Wilkinson et al. 2001; Clarke 2011)) is associated with the new, holistic approach to people management and an extension of strategic human resource management. They claim that certain HRM practices are essential for the development of human capabilities required to operate in an environment facing environmental, demographic and social pressures. The term sustainable management of HR is also used in CSR HRM practices, simultaneously contributing to positive environmental and social outcomes, while, at the same time, taking into account financial goals (Branco and Rodrigues 2006). The broad definition by Kramar states that sustainable HRM is "a pattern of planned or emerging HR strategies and practices intended to enable the achievement of financial, social and ecological goals while simultaneously reproducing the HR base over the long term. It seeks to minimize the negative impacts on the natural environment and on people and communities and acknowledges the critical enabling role of CEOs, middle and line managers, HRM professionals and employees in providing messages which are distinctive, consistent and reflect a consensus among decision-makers" (Kramar 2014, p. 16). Sustainable HRM has also been observed as an alternative for defining employment relations and contributing to sustainable organizational development (Ehnert et al. 2014).

Stankevičiute and Savanevičiene (2018), based on their literature studies, formulated a list of general principles for sustainable HRM. It includes long-term orientation, environment protection, participation of employees, employee as an equal partner, cooperation between employees, preservation of human resources, development of employees' potential, flexibility, fairness and equal opportunities. It is worth emphasizing that flexibility is not related to the flexible form of employment but to the nature of work organization. It refers to matching the employer's and employee's interests through following, e.g., a flexible work schedule.

2.2. Research Topics Related to Sustainable HRM in Recent Research

Many authors analyzed the problem of sustainable HRM in different contexts. For example, [Savanevičienė and Stankevičiūtė \(2017\)](#) argued that one of the pathways for introducing sustainable HRM is using smart power—the ability to combine the hard power of coercion or payment with the soft power of attraction (e.g., encouragement of employees; consultation on issues and training).

Shen, Dumont and Deng ([Shen et al. 2018](#)) investigated employees' perceptions of green HRM and non-green employee work outcomes. Their studies show that the perceived green HRM has an impact on non-green employee workplace outcomes through a motivational social and psychological process. The recognized organizational support moderates the effect of discerned green HRM on organizational identification and the indirect effect of observed green HRM on the three employee workplace outcomes.

Employee perception was also highlighted by Lopez-Fernandez, Romero-Fernandez and Aust ([López-Fernández et al. 2018](#)). They were of the opinion that the awareness of socially responsible HRM (SR-HRM) is important in comprehending the correlation between SR-HRM and employee commitment. Their research revealed a significant relationship between SR job analysis, collaborative, developmental and occupational health policies and employee commitment.

Järlström, Saru and Vanhala ([Järlström et al. 2018](#)) carried out studies analyzing top managers' opinions about sustainable HRM practices. One of the employee wellbeing dimensions of sustainable HRM covered the topics referring to leadership style as well as attention and support provided to employees. As a result, caring for and supporting employees stands for showing due respect, observed as essential for the sustainability approach to employee wellbeing. Employees' health is also an area of interest in the research conducted by [Stankevičiūtė and Savanevičienė \(2019\)](#). The respective empirical findings suggest that the more clearly the principles of sustainable HRM are laid down in organizations, the less work-related stress, work-family conflict and burnout are experienced by employees.

As a result of searching on 28th February 2020 in the Scopus database using the queries TITLE-ABS-KEY (“sustainable HRM” AND “employment”) in titles, abstracts and keywords, 12 documents came up. The search using queries TITLE-ABS-KEY (“sustainable HRM” and “contract”) resulted in three documents and using queries TITLE-ABS-KEY (“sustainable HRM” AND “flexible”) one document. The conclusion is that none of the documents were devoted strictly to the problem of non-permanent employment.

Sustainable HRM is correlated with employment relationships ([App et al. 2012](#); [Ybema et al. 2020](#); [Lopez-Cabrales and Valle-Cabrera 2019](#)), including psychological contracts ([Dixon-Fowler et al. 2019](#)) and union–management interdependence ([Gutiérrez Crocco and Martin 2019](#)). An in-depth analysis of the papers discussing the problem of “employer-employee” relationships, in which the authors touch upon the issue of health and employment contracts, has been conducted. For example, [App et al. \(2012\)](#) states that sustainable HRM should enhance employment relations featuring a long-term orientation and an increased attention offered to employees, including caring for and meeting their individual needs. The study by [Ybema et al. \(2020\)](#) show that an extensive spectrum of HR practices addressing health, motivation and employability contribute to the sustainable personnel employability, at least in the perception of employers. In turn, [Clipa et al. \(2019\)](#) indicate that the subjective value achieved by an employee while negotiating an employment contract has a direct positive impact on employee satisfaction with their current job and employer and on the employee's willingness to (re)negotiate in order to overcome potential issues and maintain long-term employment relationships.

[Mariappanadar and Kramar \(2014\)](#) analyzed sustainable HRM in the context of high-performance work systems (HPWS) and employee occupational wellbeing impairment. The health harms of work are defined as the practices used by organizations to extract the maximum skills, abilities and motivation of employees along with preventing them from achieving positive work-related wellbeing outcomes ([Mariappanadar 2012](#)). HPWS take advantage of flexible work arrangements, in this case not referring to forms of employment, but to working conditions. The results confirm that both tele-working and compressed working weeks do increase employee harm and reduce organizational

profitability, whereas other practices, such as flextime and home-based work, do not bring about these effects.

Although forms of employment are not broadly discussed in the literature covering sustainability and sustainable HRM, it has to be recognized that the relevance of sustainable workforce development is highlighted (Mohrman and Worley 2010). This is expected to result in a long-term approach to employees. Even though attempts are made to prepare lists of sustainable HRM indicators, they do not include comprehensive data on forms of employment (Pološki 2015; Gehrels and Suleri 2016). Companies report information on sustainability in order to construct a positive image for their stakeholders. The GRI (Global Reporting Initiative) framework includes such labor indicators as 'type of employment' (permanent or non-permanent) (Global Reporting Initiative 2011). Unfortunately, such information is not subject to mandatory audits, and thus employers can report irrelevant numbers. Meanwhile, a significant number of studies confirm that temporary employment negatively affects employees' wellbeing and health (Virtanen et al. 2005b; Żołnierczyk-Zreda 2015).

2.3. The Impact of Non-Permanent Employment on Employees' Health

The WHO define health as "a state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity" (World Health Organization 2020). The research on the effects of non-standard forms of employment on employees' health was conducted, among other places, in Belgium, Sweden, the Netherlands and Finland.

Martens and co-authors (Martens et al. 1999), who investigated Belgian doctors, concluded that those working on fixed-term contracts subjectively assessed their health as worse and reported their wellbeing as deteriorated compared to doctors employed with permanent contracts. Better subjective assessments of health were also recorded regarding permanent employees in the Netherlands (Klein Hesselink and van Vuuren 1999) and in Sweden (Aronsson et al. 2002). In turn, Virtanen et al. (2005b) found that Finnish employees of municipal offices, employed based on open-ended contracts, assessed their health subjectively as better. They were also diagnosed with fewer chronic diseases than temporary workers.

Several studies confirmed the existing correlation between temporary employment and musculoskeletal disorders. Silverstein et al. (2002) revealed that American temporary workers complain more often about neck pain than permanent workers. Similar results were collected earlier in a group of Swedish employees (Aronsson and Göransson 1999). In turn, lower back pain was more often observed in the case of temporary Spanish workers than permanent employees (Failde et al. 2000).

The correlation between employees' health condition and the sense of insecurity and also non-standard working hours, based on the example of home care workers, constituted the subject of research as well (Zeytinoglu et al. 2015). This study referred employees' health to the symptoms of stress and musculoskeletal disorders. At the same time, the non-standard working hours were identified as part-time work in a consultative capacity, whereas insecurity was related to the absence of work security and employment. Quantitative research covering a group of 532 home care workers (nurses, physiotherapists and personal support employees) showed that non-standard working hours and job insecurity are strongly correlated with stress. The relationship between non-standard working hours and musculoskeletal disorders is moderated by the symptoms of employee stress, and the interdependence between employment insecurity and musculoskeletal disorders does occur and is a direct one. The authors of this study believe that the demonstrated relationships between non-standard working hours and employment uncertainty and also the health condition of employees should be considered in the activities performed by employers, HR managers, trade unions and as part of government policies.

A significant increase in using non-standard forms of employment, in connection with high unemployment and professional inactivity rates, has become an incentive for the research conducted in Italy to determine whether job insecurity and the absence of employment opportunities affect physical and mental wellbeing in a different way than standard employment based on an open-ended contract.

The analysis of data covering Italy, from the Survey on Household Income and Wealth, showed that self-reported health status is correlated with employment status (including the form of employment). Temporary employees, jobseekers and the unemployed find themselves in a worse position than permanent workers. This is primarily true for men and young employees (Minelli et al. 2014).

An important research area refers to the relationship between the insecurity of employment resulting from fixed-term employment and the mental health of employees. As part of one of the systematically conducted research reviews on the fixed-term form of employment, employment insecurity and their impact on employees' mental health, a strong correlation between job insecurity and the incidence of mental disorders was demonstrated. The outcomes suggest that the implication of fixed-term employment and the associated job insecurity significantly determine the employees' health status. It was also found that the negative health consequences of fixed-term employment can be mitigated by certain attitudes of employees in relation to the form of employment being, e.g., correlated with a voluntary approach or the possibility of choosing a given form of employment (Hünefeld and Köper 2016).

In the studies mentioned above, Aronsson and Göransson (1999) found that temporary employment is associated with higher depression and fatigue levels reported by Swedish employees. In turn, Virtanen et al. (2005b) showed that Finnish workers employed based on a fixed-term contract are characterized by an increased level of hostility and aggressiveness, as well as depression. Vives et al. (2013), who examined Spanish workers employed on fixed-term contracts, confirmed that people with short-term employment contracts are more exposed to depression than those with permanent ones. Benavides et al. (2000), while analyzing the results of the European Work Conditions Survey, also found that temporary work is significantly positively related to employee fatigue.

The research conducted in the United States (Burgard and Seelye 2017) indicated the impact of persistent job insecurity on employees' anxiety and their mental condition. It was found that ongoing job insecurity is strongly and significantly associated with higher psychological anxiety, predominantly among older workers.

The research on the importance of non-standard forms of employment for employee health in the United Kingdom was carried out among persons with and without intellectual disability (Emerson et al. 2018). The analysis of the relationship between employment conditions and self-reported general health among British adults showed that people suffering from intellectual disability were more frequently, than their peers, exposed to non-standard employment conditions and experienced job insecurity. It was found that the experience of non-standard employment and the uncertainty of employment is associated with worse health among both the handicapped and healthy individuals.

In some studies, however, the relationship between temporary employment and poor health is presented only for the selected types of temporary employment or in certain groups of employees, e.g., depending on gender or age. Artazcoz et al. (2005) found that only some forms of temporary employment, such as temporary agency work, are associated with poorer health indicators and, at the same time, the result depends on the temporary worker's gender and social class. Other data prove that temporary work is more harmful to women's mental health than in the case of men (Santin et al. 2009). This study, conducted among fixed-term employees showed a significant relationship with depression in the group of women alone. Similar results were true for South Korea—depression symptoms were observed only among women employed on a temporary basis (Kim et al. 2012). On the other hand, German researchers, who focused on determining trends in the co-occurrence of self-rated health and different dimensions of precarious employment, taking into account the gender criterion, showed a greater impact of employment uncertainty on men's health (Pfortner et al. 2019).

Hammarstrom et al. (2011), who analyzed the results of a long-term longitudinal study performed among industrial workers in northern Sweden, found that temporary workers—but only the ones presenting a low education level—had more symptoms of general malaise and worse health than permanent workers with similar education levels. The current labor market situation may also be

affecting the collected research results. The research conducted on temporary employment in the times of crisis has shown that during such periods, most employees (regardless of the form of employment) experience high uncertainty (and its impact on health) (Guest and Isaksson 2019).

Rönblad et al. (2019) performed a systematic review of the research results on the impact of various forms of precarious employment on employee health. This term is used to describe non-standard forms of employment characterized by a low-security level, which may have a negative influence, in particular, on mental health. A still noticeable scarcity of the research based on high-quality data and analyses aimed at confirming the relationship between unstable employment and employee health was revealed.

As part of the research conducted within the analyzed area, there are still deficiencies, whereas some results are not clear-cut and explicit. It seems, however, that the conducted review will allow us to identify the existing correlation between non-permanent forms of employment (and the related employment uncertainty) and, primarily, employees' mental health. According to the majority of studies, this impact is characterized as a negative one. Workers employed based on fixed-term contracts, in the conditions of uncertainty, relatively frequently suffer worse mental health than those working in stable conditions, employed under open-ended employment contracts. The symptoms related to physical health, diagnosed in employees under unstable forms of employment, such as various musculoskeletal disorders, also seem to result from their mental situation, including the experienced stress. With the backdrop of the presented discussion, it seems interesting to address the condition of employees' mental health in Poland, i.e., in the country where precarious employment exceeds the EU average significantly and is used in various forms.

3. Material and Methods

As a result of the above-presented literature review, the objective of sustainable HRM is to take care of employees' health. Meanwhile, the forms of employment are not directly linked to the problem of sustainable HRM. In turn, the abundant subject literature identifies the existing correlations between the discussed forms of employment and employee health. Therefore, it can be hypothesized that the employer applying sustainable HRM practices will consciously choose those forms of employment that guarantee a high level of employee health (Figure 1).

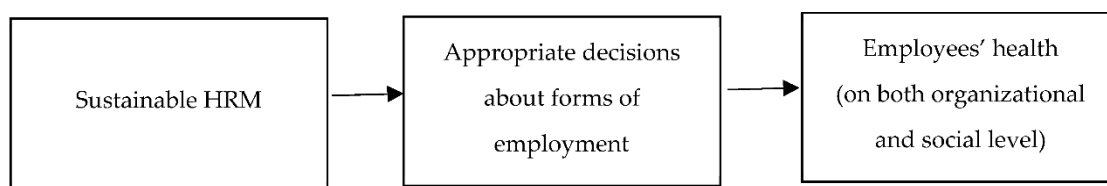


Figure 1. The choice of forms of employment as a part of sustainable human resource management (HRM).

The above assumption has been the basis for carrying out data analysis covering the practices used in Poland. The authors used the data published by Eurostat, OECD, Statistics Poland and the Polish Agency for Enterprise Development.

Eurostat data were analyzed in terms of the following reports:

- Employees under limited-duration contracts (annual average)—percentage of total employment (Appendix A).
- Precarious employment rate (Appendix B).
- Self-perceived health rate (Appendix C).
- Job insecurity—employees expecting a possible job loss over the next 6 months (Appendix D).
- Persons reporting exposure to risk factors adversely affecting their mental wellbeing (Appendix E).
- Current depressive symptoms (Appendix F).

The paper is based on descriptive data analysis. However, the authors used statistical tests in order to check if there was a correlation between non-employment variables (limited-duration contracts rate and precarious workers rate) and the data connected with perceived job insecurity, self-perceived health and depressive symptoms. The data from 28 EU countries were used to calculate the correlation. First, the authors verified whether the normality assumption was met. The normal distribution of the data allowed us to use a Pearson correlation test. However, in the case of significant data deviation from normal distribution, a Spearman correlation analysis should be used.

Regarding the OECD reports, the authors analyzed the data from the “Health at a Glance” study, which provides a comparison of the key indicators for population health across the OECD members. It highlights the differences between countries in terms of health status and the health-seeking behavior of their citizens.

Statistics Poland is the central government administration institution dealing in collecting and providing statistical information on most areas of public life and some aspects of private life. The data are provided based on the relevant legal provisions (the Act on Public Statistics and the annually announced Statistical Research Program). The article refers to the Statistics Poland reports on the forms of employment and health of Poles.

The authors also used the data published in the research project entitled “Human Capital Balance (HCB)”. This project has been carried out periodically, since 2009, by the Polish Agency for Enterprise Development in cooperation with the Jagiellonian University. Currently, HCB covers cross-sectional studies—providing general information about the labor market situation as well as industry surveys. The HCB project is co-funded by the European Union under the European Social Fund from the means offered by the Operational Program entitled “Knowledge Education Development 2014–2020”. The survey covering 2017 was conducted using computer-assisted personal interviewing (CAPI) and computer-assisted telephone interviewing (CATI). Disproportionate stratification was used to select the sample for the survey, based on the enterprise size and the section in the Polish Statistical Classification of Economic Activities. The sample covered 3541 enterprises.

In addition, the article uses the results of the research entitled “Health situation of the Polish population and its determinants 2019”. This study has been carried out cyclically since 1977 by the National Institute of Public Health—National Institute of Hygiene. The latest study consists of 15 chapters. Based on the presented data and conclusions, the crucial areas of intervention can be defined as well as the intervention based on the scientific evidence can be planned, particularly in the area of preventing disorders and illnesses.

All the studies mentioned above are of a representative nature. To supplement the information, the authors reviewed the following sustainable HRM and CSR reports on enterprises located in Poland:

- Responsible Business in Poland. Good Practices ([Forum of Responsible Business 2018](#))—as sustainability remains one of the common components of CSR and HRM in companies ([Herrera and Heras-Rosas 2020](#)).
- GRI—G4 reports, published by 3 randomly selected enterprises. In these reports, the total number of employees is presented in G4-LA1. Moreover, the breakdown of employees by type of employment, type of contract based on which work type of is provided, and region (the region refers to the country or geographical area) shows how the organization develops the structure of its human resources to implement its overall strategy. In order to fill in the report, the type of contract should be identified, taking into account full-time and part-time employment based on the definitions provided by the local regulations of the country in which workers are employed.

4. Results and Discussion

As Figure 2 shows, Poland significantly exceeds the average for EU countries both in terms of the percentage of employees on temporary contracts (fixed-term employment and civil law contracts) and precarious workers. Unfortunately, Eurostat data do not provide whether the employees performing non-standard forms of employment also have a second, open-ended form of employment.

Therefore, research is required to explicitly specify the amount of employment based solely on limited-duration contracts.

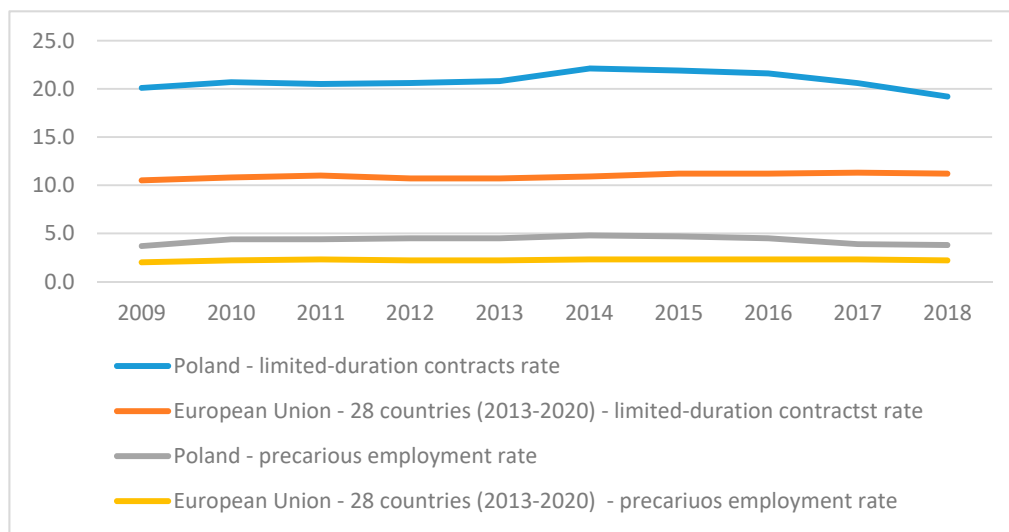


Figure 2. Non-standard employment rate in Poland at the background of the EU average—based on (Eurostat 2019a, 2019b).

However, there is no doubt as to the scale of the unstable employment presence in Poland, compared to the EU. Therefore, the question arises as to whether the higher precarious employment rate means that a given country is less mature in terms of sustainable HRM. In view of the aforementioned research scarcity analyzing the health condition of this group of employees and no tools taking into account the precariat indicator among other sustainable HRM indicators, this question cannot be answered equivocally.

Interesting data are also provided by the analysis of Eurostat research results on self-perceived health. As Figure 3 and Table 1 in Appendix C show, Poland is above the EU average regarding the percentage of people describing their health as bad or very bad.

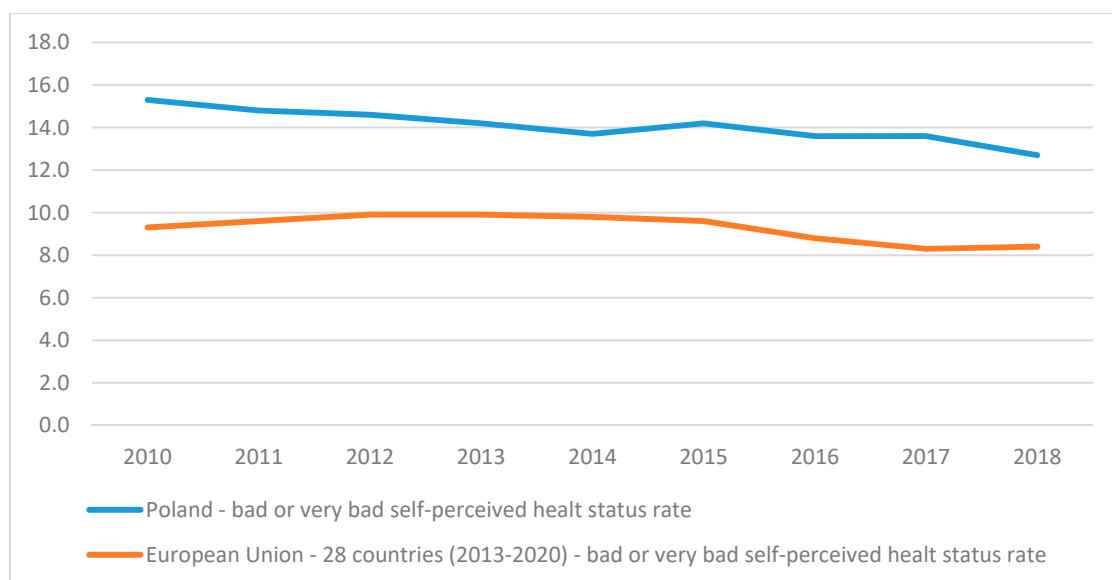


Figure 3. Self-perceived health status reported by Polish citizens at the background of the EU average—based on (Eurostat 2019c).

Table 1. Number of employees performing non-standard forms of employment—data provided by Statistics Poland (Statistics Poland 2020).

Form of Employment	Number of Employees (in Thousands)	
	Year: 2017	Year: 2018
Self-employed persons	1200	1300
Persons with whom (from January 1 till December 31) the mandate contract was concluded and who are not employed based on employment contract	986.6	998.9
Persons with whom (from January 1 till December 31) the contract to perform specified task was concluded and who are not employed based on employment contract	121.2	105.7

As highlighted above, Eurostat does not keep statistics on the number or percentage of persons employed solely on the basis of a limited-duration contract (without having a second, stable form of employment). Therefore, statistical inference may be limited. Nevertheless, an attempt was made to determine the correlation between the data on non-standard employment rate and self-perceived health status for all 28 EU countries (Eurostat 2019a, 2019b, 2019c). For this purpose, the average values from the years 2010–2018 for the analyzed data were first calculated.

A Pearson correlation analysis revealed that there was no statistically significant correlation between the average limited-duration contract rate and average very bad or bad self-perceived health status rate ($r = -0.011$; $p = 0.954$). A Spearman analysis revealed that there was no statistically significant correlation between precarious employment rate and very bad or bad self-perceived health status rate ($\rho = 0.271$; $p = 0.163$).

As presented above, our statistical analyses did not reveal any correlations between data at the macro level, which can be surprising in the context of research findings presented in Section 2.3. It is worth highlighting, however, that in-depth analyses require more specific data. For example, the results concerning the subjective assessment of the health status should take into account the cultural context, availability of medical diagnostics etc., thus the country specific factors.

In 2014, the problem of forms of employment became the subject of detailed BAEL (Badanie Aktywności Ekonomicznej Ludności—Labor Force Survey) module studies carried out by Statistics Poland. As Figure 2 shows, 2014 was the period when both a significant increase in temporary employment contracts and an increase in precarious workers were recorded in Poland. Atypical forms of employment, being the subject of the Statistics Poland survey, were categorized as forms of employment other than an employment contract based on the Labor Code provisions (contracts to perform a specified task, mandate contracts or cooperation with self-employed persons). These forms do not provide the protection defined in labor law provisions and hence their application is limited by the law, even though they are very common. According to Article 22.1 of the Labor Code, it is prohibited to replace an employment contract with a civil law contract if work is supposed to be performed following the conditions defined in labor law provisions, i.e., if specified duties are to be performed for remuneration for the benefit of and under the supervision of an employer, in the time and place specified by an employer. If a civil law contract includes conditions that are characteristic of an employment contract, it is deemed to be an employment contract.

Out of the entire working population performing any form of work under atypical forms of employment, 700,000 people (4.4% of the total working population) provided such work as their main employment. For as many as 92.5% of people who declare performing their main work under civil law contracts, this was the only job they performed during the period under study. The majority of people providing their main work under civil law contracts (80.2%) were not performing this form of work as a result of their own choice. This percentage was the highest among those employed based on a mandate contract (84.3%). Work in atypical forms of employment was most frequently performed by the general secondary education graduates (Statistics Poland 2020). Forcing employees

to sign this, rather than any other, form of contract is contrary to the principles of sustainable HRM. In the employee–employer relationship, an employee should be treated as an equal partner (Stankevičiūtė and Savanevičienė 2019).

In turn, the research conducted by Statistics Poland, covering 2017 and 2018, shows a growing number of mandate contracts being the only basis for performing paid work (Table 1)

The most popular form of employment—in terms of the civil law contracts—was a mandate contract. Among the industry sectors which used it most often, the following were listed: administrative and support service activities (more than 300,000 employees in 2018), manufacturing (over 134,000 in 2018) and trade and repair of motor vehicles (over 133,000 in 2018) (Statistics Poland 2020).

The form of employment also constituted the subject of research carried out in 2017 by the Polish Agency for Enterprise Development (see Table 2). Employment contracts were the main form of employment in key positions, based on employers’ declarations. The number of civil law contracts indicated by employers was marginal. An in-depth analysis of the data published by the Polish Agency for Enterprise Development allows us to conclude that civil law contracts were more often used in the case of such employees in key positions as service workers and sales staff (the total of 23% employed based on this form) and manual workers (27%) (Prokopowicz et al. 2018).

Table 2. Main forms of employment in key positions (Prokopowicz et al. 2018).

Form of Employment	Total (% of Employers) Year: 2017, n = 3541
Open-ended contract	54
Limited-duration contract	41
Mandate contract	11
Contract to perform a specified task	3
No formal employment contract	1

The employment of key workers based on a civil law contract is more frequent in smaller companies, while large entities prefer open-ended employment contracts at such positions. It is noteworthy that some enterprises admit employing workers without any contract. Thus, it is not surprising that the indicators regarding the likelihood of job loss place Poland, yet again, above the EU average (Figure 4).

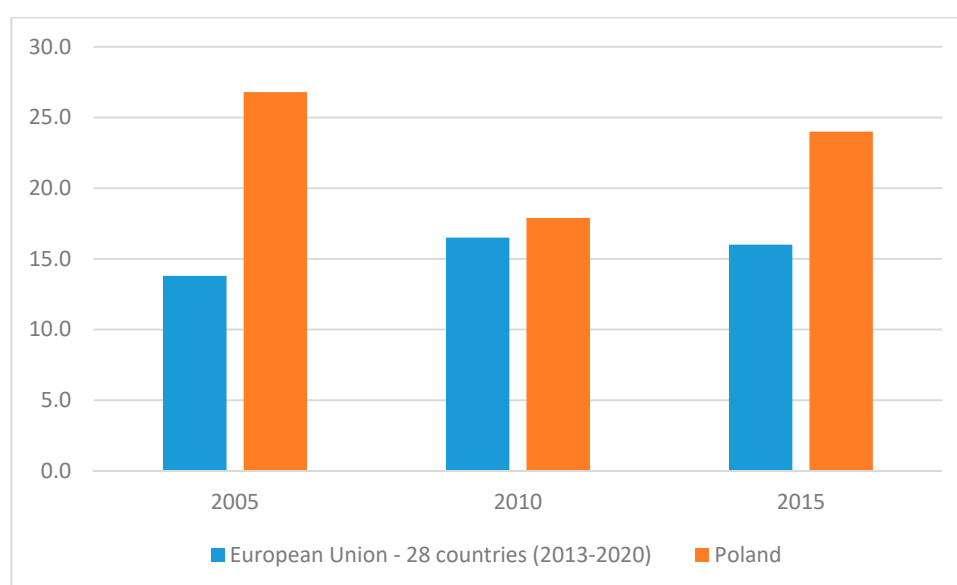


Figure 4. The employed expecting a possible job loss over the next 6 month (Eurostat 2015).

Analyses of correlations between the expectation rate of possible job loss in 28 EU countries in 2015 and the data referring to non-standard employment rates in 2015 were also conducted. A Pearson correlation analysis revealed a positive, strong and statistically significant relationship between limited-duration contract rate and the expectation rate of possible job loss ($r = 0.503$; $p = 0.007$). Similarly, the result of the Spearman analysis was a positive, moderate and statistically significant relationship between the precarious employment rate and the expectation rate of possible job loss ($\rho = 0.464$; $p = 0.015$).

The identified correlations justify taking into account these research results on employee health status which link health to job insecurity. Therefore, even if the research does not directly cover limited-duration contracts or precarious employment, it is worth considering them, because the scale of these forms of employment is significantly correlated with perceived job insecurity.

Returning to the specificity of Poland, it is worth asking whether the above-presented global statistical data referring to unstable forms of employment are also reflected in the reports on the health condition of Poles. Based on a review of the research results regarding the impact of limited-duration employment contracts and the related job insecurity on employees' health, the reports addressing their mental wellbeing were selected for the analysis.

In 2013, Eurostat published data about persons reporting exposure to risk factors that can adversely affect mental wellbeing, and in 2014 they published the data related to depressive symptoms. In turn, the OECD presented the Health at a Glance Europe 2018 report. The data from these sources are summarized in Table 3.

Table 3. Data related to mental health (Eurostat 2013, 2014; OECD 2018).

	Persons Reporting Exposure to Risk Factors That Can Adversely Affect Mental Wellbeing (%) Eurostat Year: 2013	Depressive Symptoms Eurostat Year: 2014	Depressive Disorders OECD Year: 2018	Mental Disorders OECD Year: 2018
European Union—28 countries (2013–2020)	28.1	6.7	4.5%	17.3%
Poland	18.0	5.3	3%	14.9%

Statistical analyses based on the data addressing the rate of reporting exposure to risk factors that affect mental wellbeing and the data referring to the non-standard employment rate (for 28 EU countries) using a Spearman test revealed a positive, moderate, statistically significant correlation between the variables ($\rho = 0.440$; $p = 0.022$). This result refers to the following variables: rate of reporting exposure to risk factors that affect mental wellbeing and precarious employment rate. No statistically significant correlation occurs between the variables: rate of reporting exposure to risk factors that affect mental wellbeing and limited-duration contract rate ($\rho = 0.329$; $p = 0.094$). These results may suggest the significance of other precarious employment characteristics apart from just short-term cooperation. It is also worth emphasizing, yet again, at this point that the data presented by Eurostat regarding the limited-duration contracts rate include all persons employed on a temporary basis. The same individuals can simultaneously perform work based on a temporary civil law contract and have full-time stable employment.

Correlation indicators were also calculated for the data on depressive symptoms in 2014 and the data for the non-standard employment rate in 2014 and 2013 for 28 EU countries. The data on employment forms were deliberately adopted from two periods, as unstable employment may have health effects in the future. A statistically significant correlation between the analyzed variables does not occur. For the data from 2014 regarding the limited-duration contract rate, the following results of the Pearson analysis were obtained: $r = 0.160$; $p = 0.434$. For the data from 2014 regarding the precarious employment rate, the following results of the Spearman analysis were obtained: $\rho = 0.016$; $p = 0.937$. For the data from 2013 regarding the limited-duration contracts rate, the following results of the Pearson analysis were obtained: $r = 0.212$; $p = 0.299$. For the 2013 data, the following results of the Spearman analysis were obtained for precarious employment rate: $\rho = 0.017$; $p = 0.933$. While interpreting the obtained results, in this case, it is also worth referring to the limitations resulting

from the comparison of macroeconomic data, without taking into account the country-specific factors. As part of this analysis, the important factors may include, e.g., the degree of public awareness in terms of mental health, or the availability of psychological and psychiatric assistance, including diagnostics, and thus the factors specific to a given country.

As Table 3 shows, Poland is ranked below the EU average. The ranking of countries in terms of reporting factors affecting mental wellbeing lists Poland as ninth. In turn, the ranking of depressive symptoms in Poland is 12th (see Appendix F), which means that Poland is ranked higher than the countries not using non-standard forms of employment to a large extent. This does not mean, however, that the health condition of Poles is better. It just means that they refrain from reporting about being exposed to factors that have a negative effect on their mental health. They may also not be as willing as the citizens of other countries to seek professional help in mental health clinics.

The results of the study conducted by [Izydorczyk \(2018\)](#) regarding the incidence of all mental disorders suggest a significant growth in the number of economically active individuals who sought help due to various mental disorders in the years 2014–2016 at the very same mental health facilities where the study measurements were conducted. The statistical significance of differences in all types of comparisons was high. The highest growth (twofold higher since 2014) was observed in the number of people diagnosed with stress-related disorders.

In 2017, over 1.6 million people in Poland were treated, on an outpatient basis, in clinics for people with mental disorders, i.e., approximately 5% of all Poles, which was over 40,000 more than in 2016. In the structure of mental and behavioral disorders treated in outpatient settings, the predominant ones were neurotic disorders (1.246 treated per 100,000 population) and mood disorders (857 treated per 100,000 population). In total, these two diagnosed groups referred to almost 49% of all patients ([Statistics Poland 2020](#)).

Attention should also be paid to the gap in life expectancy at the age of 30 between people with the lowest and the highest level of education, which, for women, is 5.1, whereas, for men, this amounts to as many as 12 years. In Poland, the 30-year-old men presenting low education levels can expect to live by 10 years shorter than those with a high level of education (OECD). One of the reasons for this situation may be—apart from employment in the conditions of increased physical risk—the more frequent unstable forms of employment among this group of employees.

The research conducted in Poland by Statistics Poland, in the critical year 2014, aimed at the subjective assessment of the incidence of threats among the surveyed working people. The total number of psychological threats (the so-called threats per capita) in the workplace amounted to 6,693,000 (3,704,000 among men and 2,989,000 among women). In this group of hazards, the stress-related ones, resulting from the possibility of losing a job in the near future, were marked. Positive answers were provided by 34% of the respondents (Figure 5). Simultaneously, for 12.3% of the respondents, it was the main psychological factor perceived as a significant work-related hazard. The analysis of the psychological factor, i.e., stress, associated with the possibility of losing a job in the near future showed that the greatest threats related to this factor among women are present in sections C—“Industrial processing” and H—“Transport and storage”, where every fourth woman was exposed to this factor. Among men, the high level of risk associated with this factor was recorded in section N—“Administrative and support services” (for every fourth respondent in this section). It should be noted that the stress-related threat of job loss in the near future occurs much more often among women in most sections than in the case of men ([Statistics Poland 2014](#)).

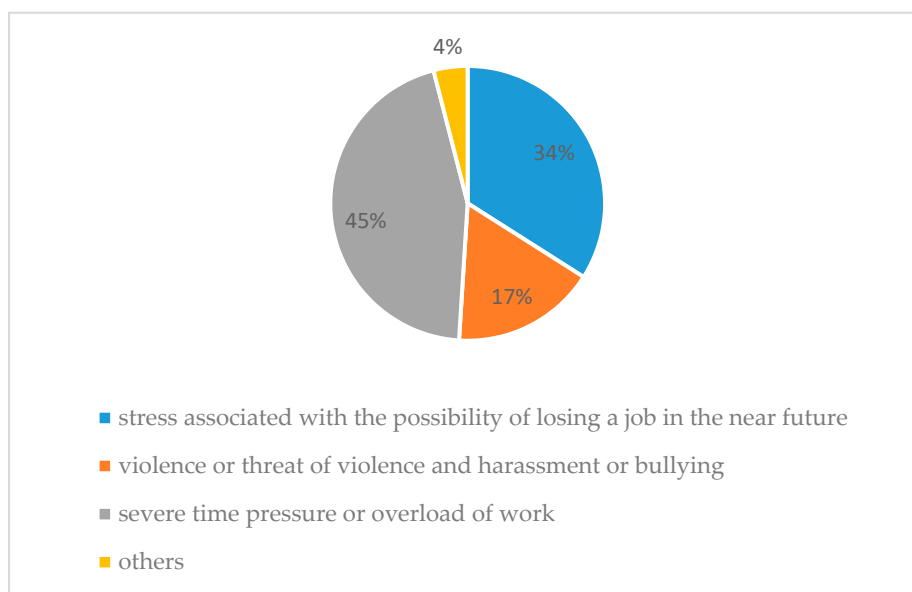


Figure 5. Structure of psychological threats as work-related health problems in 2014 in Poland (Statistics Poland 2014).

According to the latest research results of the National Institute of Public Health—National Institute of Hygiene, published in 2019, the combined results of self-assessment of three health condition aspects allow us to estimate that about two thirds of adult men and 57% of women present a satisfactory health condition. Obviously, the percentage of these people declines significantly along with advancing age; thus, at the age of 65 and older only every fifth man and every seventh woman are included in this group. Noteworthy, about 40% of the respondents, 44.4% of men and 37.7% of women, stated they had not come across the concept of “risk factor or a factor contributing to health disorders”. The awareness of Poles regarding the effects of chronic stress is also very low (it was declared by only 19.7% of the respondents). These results point to the urgent need for more effective health education in Polish society (Wojtyniak and Goryński 2019).

Meanwhile, the organizations promoting the application of sustainable HRM principles, such as the Responsible Business Forum, are collecting the so-called good practices applied in Poland. In the report “Responsible Business in Poland. Good practices 2019”, as many as 1549 practices were included (826 new and 723 long-term ones), reported by 229 companies. This means an approximately 30% increase compared to the previous year. In total, 237 new practices were presented in the area of work, including 180 long-term ones. These were reported by a total of 129 companies. The majority of new examples were listed in the area of health. Quite a few companies offer specialized health tests and educational campaigns on potential threats to their employees. There are more practices related to various types of employee support, encouraging them to practice sports or develop a smart relationship between work and their personal life. There are examples of assistance in fighting burnout and depression (Forum of Responsible Business 2018). Unfortunately, however, the collected data are not representative. These, in turn, come from 2015, when only 4.3% of companies introduced changes in both organization and management to reduce work-related stress (Puchalski and Korzeniowska 2016). As part of sustainable HRM, attention is paid to the amount of effort invested by an organization in employee retention and regeneration, as well as their health care (Ehnert 2009; Mariappanadar 2016)

The analysis of randomly selected GRI4 reports showed that companies do not always reveal the number of people employed based on civil law contracts. PGE Group (2017) is a positive example—it provides the number of employees based on fixed-term, full-time and also civil law contracts. Additionally, it reports the attitude of self-employed workers to all employees. Agora Group (2017) shows full-time employment without indicating whether the contracts are fixed-term ones or not.

MBank (2015) divides employees into those who perform fixed-term and full-time employment. As the above examples show, there is a certain degree of freedom in presenting data on the used forms of employment.

5. Conclusions and Directions for Further Research

This article addresses the existing correlation between forms of employment and employee health in the context of sustainable HRM. The respective data were presented and analyzed for a country that stands out, against the background of the EU, regarding the large-scale of non-permanent forms of employment and indicators of precarious workers. Unfortunately, the aggregated data from representative studies are fragmentary and the research is not conducted on a continuous basis.

The following implications for science arise from the discussion presented above. Firstly, there is a need to include the problem of forms of employment in research regarding the scope of sustainable HRM implementation. Secondly, there is no comprehensive set of indicators and research tools that allow researchers to determine the level of implementation of sustainable HRM and to make comparisons between companies. The aggregated, representative data from Eurostat or OECD databases do not allow researchers to assess the maturity degree of particular countries in implementing a sustainable HRM idea. In the course of research—conducted both within enterprises and in a specific country—information should be collected from employers and employees. The organizations and the employers promoting the idea of sustainability—as indicated in the presented examples—boast about their positive actions. However, objectivity and data reliability are crucial in assessing the degree of implementation of sustainable HRM principles.

In reference to the questions put forward in the study, the following can be stated:

- (1) Forms of employment, including, above all, the degree of stability they provide and the issues of their voluntary choice by employees, should remain within the interest of both science and practice, focused on the idea of sustainable HRM. The conducted analyses indicate the negative influence of using unstable forms of employment on employees' health, primarily regarding their mental health, which should be mainly associated with the impact of stress. At the same time, the research results indicate the importance of freedom in choosing a form of employment for the perception of its impact on an employee's wellbeing.
- (2) Poland is the country standing out against the background of the European Union Member States in terms of the unstable forms of employment share in the labor market, along with a wide range of non-standard forms of employment, including civil law contracts. The research on using these forms of employment in Poland is not conducted systematically. Over 30% of Poles declare experiencing stress resulting from the fear of losing their job. In addition, awareness of the impact of this factor on health, as well as the ability to seek psychological support, seem insufficient among Poles.
- (3) Current guidelines for reporting the use of non-standard forms of employment by enterprises are inconsistent. In the reports presenting assumptions about the sustainable HRM implementation level in organizations, enterprises voluntarily demonstrate the scope of using unstable forms of employment, showing data in various combinations, usually not taking into account the full range of such forms and not referring to the issue of employee's choice of a given form of employment. Moreover, at the reporting level, the application of unstable forms of employment is not correlated with employees' wellbeing. There is no universal and comprehensive tool to diagnose the level of sustainable HRM in organizations, including, e.g., the issues of using particular forms of employment. The aggregated data presented, among others, by Eurostat and OECD, do not allow researchers to assess the maturity of countries in implementing the idea of sustainable HRM. This was demonstrated by the statistical analyses carried out in the article using macroeconomic data. On this basis, the statistically significant correlations were only confirmed between the following: (1) expectation rate of possible job loss in the next 6 months and limited-duration contract rate; (2) expectation rate of possible job loss in the next

6 months and precarious employment rate; (3) rate of reporting exposure to risk factors that affect mental wellbeing and precarious employment rate. Conducting such analyses is associated with significant limitations resulting from leaving out many important factors characteristic of the given countries and affecting the presented data, such as public awareness of mental health or the availability of diagnostics in this area, among other factors. This conclusion strengthens the standpoint presented by the authors regarding the need to diagnose this phenomenon at the micro level, including the standardized reporting of enterprises about using the non-standard forms of employment and the status of employees' health who are employed in this manner.

- (4) The aforementioned limitations in the inference process represent, at the same time, a challenge for scientists. Future research projects should be focused on developing a comprehensive, coherent and universal tool that will allow researchers to assess the sustainable HRM implementation level in an organization, including the standardized reporting of non-permanent employment and employees' health, and making comparisons between organizations. The research process should cover the problem of using flexible forms of employment and their impact on employees' health conditions. The aggregate data collected within the framework of representative studies could be used to make comparisons between individual countries.

The presented conclusions may be gaining importance in the context of the changing labor market situation related to the ongoing COVID-19 pandemic. The unstable economic situation, apart from creating direct effects in the form of a higher unemployment rate, can also result in an increased share of precarious, unstable forms of employment in all European Union countries. The use of these forms should become a subject of interest within the concept of sustainable HRM, primarily due to the possibility of their negative impact on the mental health of employees.

Author Contributions: Conceptualization, K.P.-S. and D.B.-G.; methodology, K.P.-S. and D.B.-G.; formal analysis, K.P.-S.; data curation, K.P.-S.; writing—original draft preparation, K.P.-S. and D.B.-G.; writing—review and editing, K.P.-S. and D.B.-G. All authors have read and agreed to the published version of the manuscript.

Funding: The project was financed by the Ministry of Science and Higher Education in Poland under the program “Regional Initiative of Excellence” 2019–2022, project number 015/RID/2018/19, total funding amount PLN 10 721 040,00.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Table A1. Persons with limited-duration contracts—percentage of total employment (Eurostat 2019a).

Countries with an Average Higher Rate Than the EU and the EU	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Mean
Poland	20.1	20.7	20.5	20.6	20.8	22.1	21.9	21.6	20.6	19.2	20.81
Spain	20.6	20.3	20.8	19.2	18.9	19.6	20.7	21.5	22.1	22.3	20.6
Portugal	17.1	18.2	17.8	16.6	17.3	17.6	18.3	18.6	18.5	18.6	17.86
Netherlands	13	13	13	13.8	14.5	15.1	14	14.3	15	14.6	14.03
Slovenia	13.1	13.8	14.6	14.1	13.4	13.4	14.6	14.2	14.6	12.8	13.86
Croatia	9.2	9.8	10.5	10.7	11.9	14	16.9	18.6	17.5	17.1	13.62
Cyprus	11.2	11.6	11.9	12.8	14.5	15.7	15.8	14.3	13.5	12	13.33
Sweden	11.6	12.6	13.2	12.8	13.2	13.6	13.5	13.2	13.1	12.8	12.96
Finland	11.6	12.4	12.5	12.4	12.3	12.2	12.1	12.6	12.8	13.1	12.4
France	10.4	10.9	11.1	11.2	11.2	12.6	13.3	13.3	13.9	13.7	12.16
European Union—28 countries (2013–2020)	10.5	10.80	11.00	10.70	10.70	10.90	11.20	11.2	11.3	11.2	10.95

Appendix B

Table A2. Precarious workers rate (Eurostat 2019b).

Countries with an Average Higher Rate Than the EU and the EU	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Mean
Croatia	3.5	3.9	4.8	4.7	4.8	4.9	6.7	8.4	7.1	6.9	5.6
Slovenia	4.7	4.9	5.4	4.7	4.2	4.4	5.0	4.5	5.1	4.3	4.7
France	4.3	4.7	4.9	4.7	4.1	4.4	4.7	4.8	5.1	4.9	4.7
Spain	4.2	4.3	4.3	4.2	4.6	4.8	4.7	4.7	4.7	4.4	4.5
Sweden	4.7	5.2	4.9	4.9	4.8	4.7	4.4	3.7	3.5	3.4	4.4
Poland	3.7	4.4	4.4	4.5	4.5	4.8	4.7	4.5	3.9	3.8	4.3
Finland	3.3	4.4	4.2	4.3	4.2	4.1	4.2	4.4	4.2	4.3	4.2
Belgium	2.9	2.6	3.2	2.9	2.9	3.0	3.2	3.5	3.9	4.2	3.2
Hungary	3.7	3.9	3.9	3.5	3.6	3.6	3.6	2.2	2.2	2.0	3.2
Portugal	1.0	1.1	3.6	3.5	3.5	3.1	3.2	3.2	2.9	2.8	2.8
Italy	2.0	2.1	2.3	2.4	2.4	2.6	2.9	3.2	3.5	3.8	2.7
European Union—28 countries (2013–2020)	2.0	2.2	2.3	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2

Appendix C

Table A3. Very bad and bad self-perceived health rate (Eurostat 2019c).

Countries with an Average Higher Rate Than the EU and the EU	Average (2010–2018) (%)
Croatia	22.02
Lithuania	17.96
Portugal	17.54
Latvia	16.47
Estonia	15.37
Hungary	14.92
Poland	14.08
Slovakia	12.34
Czechia	11.80
Bulgaria	11.57
Slovenia	11.28
Italy	10.26
Greece	9.90
European Union—28 countries (2013–2020)	9.29

Appendix D

Table A4. Employed persons expecting a possible job loss over the next 6 months (Eurostat 2015).

Countries with an Average Higher Rate Than the EU and the EU	Data from Year: 2015 (%)
Slovenia	27.5
Spain	26.0
Netherlands	25.2
Poland	24.0
Italy	21.0
Greece	20.7
Latvia	19.9
Portugal	19.1
Estonia	19.0
Croatia	18.6
Czechia	16.7
Hungary	16.7
Romania	16.3
European Union—28 countries (2013–2020)	16.0

Appendix E

Table A5. Persons reporting exposure to risk factors that can adversely affect mental wellbeing (Eurostat 2013).

Countries with an Average Higher Rate Than the EU and the EU	Data from Year: 2013 (%)
Turkey	7.9
Bulgaria	12.9
Malta	13.2
Romania	14.9
Denmark	16.7
Germany (until 1990 former territory of the FRG)	16.8
Lithuania	17.4
Norway	17.8
Poland	18.0
Czechia	19.6
Croatia	20.2
Hungary	20.3
Estonia	22.6
United Kingdom	23.1
Ireland	23.5
Latvia	23.9
Cyprus	24.7
Spain	26.6
Slovakia	26.8
Italy	27.1
European Union—28 countries (2013–2020)	28.1

Appendix F

Table A6. Current depressive symptoms (Eurostat 2014).

Countries with an Average Higher Rate Than the EU and the EU	Data from Year: 2014 (%)
Czechia	3.2
Slovakia	3.4
Croatia	3.8
Lithuania	3.9
Italy	4.3
Greece	4.4
Cyprus	4.6
Romania	4.6
Latvia	4.7
Finland	4.8
Austria	5.0
Poland	5.3
Slovenia	5.5
Malta	5.7
Ireland	5.8
Denmark	6.3
Norway	6.4
European Union—28 countries (2013–2020)	6.7

References

- Agora Group. 2017. Raport Odpowiedzialności Grupy Agora 2017. Available online: <https://www.agora.pl/raportCSR-2017/miejsce-pracy-i-prawa-czlowieka#nasi-pracownicy> (accessed on 5 June 2020).

- App, Stefanie, Janina Merk, and Marion Büttgen. 2012. Employer Branding: Sustainable HRM as a Competitive Advantage in the Market for High-Quality Employees. *Management Revue* 23: 262–78. [CrossRef]
- Aronsson, Gunnar, and Sara Göransson. 1999. Permanent Employment but Not in a Preferred Occupation: Psychological and Medical Aspects, Research Implications. *Journal of Occupational Health Psychology* 4: 152–63. [CrossRef] [PubMed]
- Aronsson, Gunnar, Klas Gustafsson, and Margareta Dallner. 2002. Work Environment and Health in Different Types of Temporary Jobs. *European Journal of Work and Organizational Psychology* 11: 151–75. [CrossRef]
- Arowoshegbe, Amos O., and Uniamikogbo Emmanuel. 2016. Sustainability and Tripple Bottom Line: An Overview of Two Interrelated Concepts. *Igbinedion University Journal of Accounting* 2: 88–126.
- Artazcoz, L., Joan Banach, Carme Borelli, and Imma Cortès. 2005. Social Inequalities in the Impact of Flexible Employment on Different Domains of Psychosocial Health. *Journal of Epidemiology & Community Health* 59: 761–67.
- Azevedo, Bruno Duarte, Luiz Felipe Scavarda, and Rodrigo Goyannes Gusmão Caiado. 2019. Urban Solid Waste Management in Developing Countries from the Sustainable Supply Chain Management Perspective: A Case Study of Brazil's Largest Slum. *Journal of Cleaner Production* 233: 1377–86. [CrossRef]
- Becker, Wendy. 2011. Are You Leading a Socially Responsible and Sustainable Human Resource Function? *People & Strategy* 34: 18–23.
- Benavides, Fernando Garcia, Joan Benach, Ana Victoria Diez-Roux, and Carmen Roman. 2000. How do types of employment relate to health indicators? Findings from the Second European Survey on Working Conditions. *Journal of Epidemiology and Community Health* 54: 494–501. [CrossRef] [PubMed]
- Branco, Manuel Castelo, and Lúcia Lima Rodrigues. 2006. Corporate Social Responsibility and Resource-Based Perspectives. *Journal of Business Ethics* 69: 111–32. [CrossRef]
- Brundtland, Gro Harlem, ed. 1987. *Report of the World Commission on Environment and Development: Our Common Future*. Oxford: Oxford University Press.
- Burgard, Sarah A., and Sarah Seelye. 2017. Histories of Perceived Job Insecurity and Psychological Distress among Older U.S. Adults. *Society and Mental Health* 7: 21–35. [CrossRef]
- Chaudhary, Richa. 2018. Can Green Human Resource Management Attract Young Talent? An Empirical Analysis. *Evidence-Based HRM* 6: 305–19. [CrossRef]
- Clarke, M. 2011. Sustainable HRM: A New Approach to People Management. In *Readings in HRM and Sustainability*. Edited by Mark Clarke. Melbourne: Tilde University Press, pp. 1–7.
- Clipa, Anca Maria, Catalin Ioan Clipa, Magdalena Danilet, and Andreia Gabriela Andrei. 2019. Enhancing Sustainable Employment Relationships: An Empirical Investigation of the Influence of Trust in Employer and Subjective Value in Employment Contract Negotiations. *Sustainability* 11: 4995. [CrossRef]
- Cohen, Elaine. 2010. *CSR for HR: A Necessary Partnership for Advancing Responsible Business Practice*. Sheffield: Greenleaf.
- Dixon-Fowler, Heather, Anne O'Leary-Kelly, Jonathan Johnson, and Megan Waite. 2019. Sustainability and Ideology-Infused Psychological Contracts: An Organizational- and Employee-Level Perspective. *Human Resource Management Review* 30: 100690. [CrossRef]
- Ehnert, Ina, Wes Harry, and Klaus J. Zink. 2014. Sustainability and HRM. An Introduction to the Field. In *Sustainability and Human Resource Management: Developing Sustainable Business Organizations*. Edited by Ina Ehnert, Wes Harry and Klaus J. Zink. Berlin/Heidelberg: Springer, pp. 3–32.
- Ehnert, Ina. 2009. *Sustainable Human Resources Management: A Conceptual and Exploratory Analysis from a Paradox*. Heidelberg: Physica-Verlag HD.
- Emerson, Eric, Chris Hatton, Janet Robertson, and Susannah Baines. 2018. The Association between Non-Standard Employment, Job Insecurity and Health among British Adults with and without Intellectual Impairments: Cohort Study. *SSM Population Health* 4: 197–205. [CrossRef]
- Eurofound. 2002. Non-Permanent Employment, Quality of Work and Industrial Relations. Available online: <https://www.eurofound.europa.eu/publications/report/2002/non-permanent-employment-quality-of-work-and-industrial-relations> (accessed on 1 June 2020).
- Eurofound. 2018. Precarious Work. Available online: <https://www.eurofound.europa.eu/observatories/eurwork/industrial-relations-dictionary/precarius-work> (accessed on 1 June 2020).

- Eurostat. 2013. Persons Reporting Exposure to Risk Factors That Can Adversely Affect Mental Well-Being by Sex, Age and Factor—hsw_exp3. Available online: https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hsw_exp3andlang=en (accessed on 1 June 2020).
- Eurostat. 2014. Current Depressive Symptoms by Sex, Age and Income Quintile—hlth_ehis_mh1i. Available online: https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_ehis_mh1iandlang=en (accessed on 5 June 2020).
- Eurostat. 2015. Employed Persons Expecting a Possible Loss of Their Job in the Next 6 Months by Sex and Age—qoe_ewcs_4a5. Available online: https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=qoe_ewcs_4a5andlang=en (accessed on 5 June 2020).
- Eurostat. 2019a. Employees with a Contract of Limited Duration (Annual Average)—tps00073. Available online: <http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tps00073andlang=en> (accessed on 5 June 2020).
- Eurostat. 2019b. Precarious Employment by Sex, Age and NACE Rev. 2 activity—lfsa_qoe_4ax1r2. Available online: https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa_qoe_4ax1r2andlang=en (accessed on 6 June 2020).
- Eurostat. 2019c. Self-Perceived Health by Sex, Age and Degree of Urbanization—hlth_silc_18. Available online: https://ec.europa.eu/eurostat/web/products-datasets/product?code=hlth_silc_18 (accessed on 19 June 2020).
- Failde, Inmaculada, Juan Gonzalez, Novalbos Ruis, Rose Pedro, Francisco Casais, Garcia Marin, Juan Francisco, and Itziar Elorza. 2000. Psychological and Occupational Predictive Factors for Back Pain among Employees of a University Hospital in Southern Spain. *Occupational Medicine* 50: 591–96. [CrossRef]
- Forum of Responsible Business. 2018. Odpowiedzialny Biznes w Polsce. Dobre Praktyki 2018. Available online: <http://odpowiedzialnybiznes.pl/wp-content/uploads/2019/04/Raport2018.pdf> (accessed on 6 June 2020).
- Gehrels, Sjoerd, and Javed Suleri. 2016. Diversity and Inclusion as Indicators of Sustainable Human Resources Management in the International Hospitality Industry. *Research in Hospitality Management* 6: 61–67. [CrossRef]
- Global Reporting Initiative. 2011. GRI: Inside [and] out Global Reporting Initiative Sustainability Report 2010/2011. Available online: <https://www.globalreporting.org/resource/library/GRI-Sustainability-Report-2010-2011.pdf> (accessed on 7 June 2020).
- Guest, David E., and Kerstin Isaksson. 2019. Temporary employment contracts and employee well-being during and after the financial crisis: Introduction to the special issue. Available online: <https://journals.sagepub.com/doi/abs/10.1177/0143831X18804706> (accessed on 7 June 2020).
- Gutiérrez Crocco, Francisca, and Angel Martin. 2019. Towards a Sustainable HRM in Latin America? Union-Management Relationship in Chile. *Employee Relations*. [CrossRef]
- Hammarstrom, Anne, Pekka Virtanen, and Urban Janlert. 2011. Are the Health Consequences of Temporary Employment Worse among Low Educated than among High Educated? *The European Journal of Public Health* 21: 756–61. [CrossRef]
- Herrera, Juan, and Carlos de las Heras-Rosas. 2020. Corporate Social Responsibility and Human Resource Management: Towards Sustainable Business Organizations. *Sustainability* 12: 841. [CrossRef]
- Hünefeld, Lena, and Birgit Köper. 2016. Fixed-Term Employment and Job Insecurity (JI) as Risk Factors for Mental Health. A Review of International Study Results. *E-Journal of International and Comparative Labour Studies* 5: 94–113.
- Institute for Sustainable Development, Touche Deloitte, and Business Council for Sustainable Development. 1992. *Business Strategy for Sustainable Development: Leadership and Accountability for the 90s*. Winnipeg: International Institute for Sustainable Development.
- Izydorczyk, Beata. 2018. Mental condition and specificity of mental disorders in a group of workers from southern Poland: A research report. *Medycyna Pracy* 69: 13–28. [CrossRef] [PubMed]
- Jackson, Susan E., and Janghoon Seo. 2010. The Greening of Strategic HRM Scholarship. *Organization Management Journal* 7: 278–90. [CrossRef]
- Järlström, Maria, Essi Saru, and Sinikka Vanhala. 2018. Sustainable Human Resource Management with Salience of Stakeholders: A Top Management Perspective. *Journal of Business Ethics* 152: 703–24. [CrossRef]
- Kim, Seung-Sup, S. V. Subramanian, Glorian Subramanian, Melissa J. Perry, and David C. Christiani. 2012. Association between Change in Employment Status and New-Onset Depressive Symptoms in South Korea—A Gender Analysis. *Scandinavian Journal of Work, Environment & Health* 38: 537–45.
- Klein Hesselink, D. J., and Tinka van Vuuren. 1999. Job Flexibility and Job Insecurity: The Dutch Case. *European Journal of Work and Organizational Psychology* 8: 273–93. [CrossRef]

- Kramar, Robin. 2014. Beyond Strategic Human Resource Management: Is Sustainable Human Resource Management the next Approach? *International Journal of Human Resource Management* 25: 1069–89. [CrossRef]
- Labuschagne, Carin, Alan C. Brent, and Ron P.G. van Erck. 2005. Assessing the Sustainability Performances of Industries. *Journal of Cleaner Production* 13: 373–85. [CrossRef]
- Lopez-Cabrales, Alvaro, and Ramon Valle-Cabrera. 2019. Sustainable HRM Strategies and Employment Relationships as Drivers of the Triple Bottom Line. *Human Resource Management Review* 30: 100689. [CrossRef]
- López-Fernández, Macarena, Pedro M. Romero-Fernández, and Ina Aust. 2018. Socially Responsible Human Resource Management and Employee Perception: The Influence of Manager and Line Managers. *Sustainability* 10: 4614. [CrossRef]
- Magon, Renata Bianchini, Antônio Márcio Tavares Thomé, Ana Luiza Carvalho Ferrer, and Luiz Felipe Scavarda. 2018. Sustainability and Performance in Operations Management Research. *Journal of Cleaner Production* 190: 104–17. [CrossRef]
- Mariappanadar, Sugumar, and Robin Kramar. 2014. Sustainable HRM: The Synthesis Effect of High Performance Work Systems on Organisational Performance and Employee Harm. *Asia-Pacific Journal of Business Administration* 6: 206–24. [CrossRef]
- Mariappanadar, Sugumar. 2012. Harm of Efficiency Oriented HRM Practices on Stakeholders: An Ethical Issue for Sustainability. *Society and Business Review* 7: 168–84. [CrossRef]
- Mariappanadar, Sugumar. 2016. Health Harm of Work from the Sustainable HRM Perspective: Scale Development and Validation. *International Journal of Manpower* 37: 924–44. [CrossRef]
- Martens, Mike, Frans Nijhuis, Martin P.J. Van Boxtel, and Andre Knottnerus. 1999. Flexible work schedules and mental and physical health. A study of a working population with non-traditional working hours. *Journal of Organizational Behavior* 20: 35–46. [CrossRef]
- MBank. 2015. CSR Report of MBank 2014–2015. Available online: https://www.mbank.pl/pdf/CSR/raport_csr_mbanku_2014_2015.pdf (accessed on 2 June 2020).
- Minelli, Liliana, Claudia Pignini, Manuela Chiavarini, and Francesco Bartolucci. 2014. Employment Status and Perceived Health Condition: Longitudinal Data from Italy. *BMC Public Health* 14: 946. [CrossRef] [PubMed]
- Mohrman, Susan Albers, and Christopher G. Worley. 2010. The Organizational Sustainability Journey: Introduction to the Special Issue. *Organizational Dynamics* 39: 289–94. [CrossRef]
- OECD. 2018. *Health at a Glance: Europe 2018*. Paris: OECD.
- Olsthoorn, Martin. 2014. Measuring Precarious Employment: A Proposal for Two Indicators of Precarious Employment Based on Set-Theory and Tested with Dutch Labor Market-Data. *Social Indicators Research* 119: 421–41. [CrossRef]
- Pförtner, Timo-Kolja, Holger Pfaff, and Kira Isabel Hower. 2019. Trends in the Association of Different Forms of Precarious Employment and Self-Rated Health in Germany. An Analysis with the German Socio-Economic Panel between 1995 and 2015. *Journal of Epidemiology and Community Health* 73: 1002–11. [CrossRef]
- PGE Group. 2017. Yearly Report 2017. Available online: <https://raportzintegrowany2017.gkpgge.pl/zaangazowanie-w-stabilny-rozwoj/pracownicy.html> (accessed on 2 June 2020).
- Pološki, Vokić N. 2015. Competitiveness and Sustainability of HRM Activities in Croatia—CRANET Survey Results. *Efzg Working Paper Series* 15: 1–12.
- Prokopowicz, Piotr, Marcin Kocór, Anna Szczucka, and Patrycja Antosz. 2018. Raport z Badania Pracodawców w Obszarze Zarządzania Kapitałem Ludzkim. Bilans Kapitału Ludzkiego 2017. Available online: https://www.parp.gov.pl/storage/publications/pdf/30---Raport-z-badania-pracodawcow_200129.pdf (accessed on 1 June 2020).
- Puchalski, Krzysztof, and Elżbieta Korzeniowska. 2016. Workplace Health Promotion in Poland in 2015—Diagnosis Based on a Representative Survey of Companies Employing More than 50 Employees. *Medycyna Pracy* 68: 229–46. [CrossRef]
- Rönblad, Torkel, Erik Grönholm, Johanna Jonsson, Isa Koranyi, Cecilia Orellana, Bertina Kreshpaj, Lingjing Chen, Leo Stockfelt, and Theo Bodin. 2019. Precarious Employment and Mental Health: A Systematic Review and Meta-Analysis of Longitudinal Studies. *Scandinavian Journal of Work, Environment & Health* 45: 429–43.
- Rosen, Marc A. 2018. Issues, Concepts and Applications for Sustainability No Title. *Glocalism: Journal of Culture, Politics and Innovation* 3: 1–21.

- Santin, Gaëlle, Christine Cohidon, Marcel Goldberg, and Ellen Imbernon. 2009. Depressive Symptoms and Atypical Jobs in France, from the 2003 Decennial Health Survey. *American Journal of Industrial Medicine* 52: 799–810. [CrossRef] [PubMed]
- Savanevičienė, Asta, and Živilė Stankevičiūtė. 2017. Smart Power as a Pathway for Employing Sustainable Human Resource Management. *Engineering Economics* 28: 198–206. [CrossRef]
- Shen, Jie, Jenny Dumont, and Xin Deng. 2018. Employees' Perceptions of Green HRM and Non-Green Employee Work Outcomes: The Social Identity and Stakeholder Perspectives. *Group and Organization Management* 43: 594–622. [CrossRef]
- Silverstein, Barbara, Eira Viikari-Juntura, and John Kalat. 2002. Use of a Prevention Index to Identify Industries at High Risk for Work-Related Musculoskeletal Disorders of the Neck, Back, and Upper Extremity in Washington State, 1990–1998. *American Journal of Industrial Medicine* 41: 149–69. [CrossRef]
- Stalcup, Lawrence D., Cynthia S. Deale, and Samuel Y. Todd. 2014. Human Resources Practices for Environmental Sustainability in Lodging Operations. *Journal of Human Resources in Hospitality & Tourism* 13: 389–404.
- Stankevičiute, Živilė, and Asta Savanevičienė. 2018. Designing Sustainable HRM: The Core Characteristics of Emerging Field. *Sustainability* 10: 4798. [CrossRef]
- Stankevičiūtė, Živilė, and Asta Savanevičienė. 2019. Can Sustainable HRM Reduce Work-Related Stress, Work-Family Conflict, and Burnout? *International Studies of Management & Organization* 49: 79–98.
- Statistics Poland. 2014. Accidents at Work and Work-Related Health Problems. Available online: [https://stat.gov.pl/obszary-tematyczne/rynek-pracy/warunki-pracy-wypadki-przy-pracy-wypadki-przy-pracy-i-problemy-zdrowotne-zwiazane-z-praca,2,2.html](https://stat.gov.pl/obszary-tematyczne/rynek-pracy/warunki-pracy-wypadki-przy-pracy/wypadki-przy-pracy-i-problemy-zdrowotne-zwiazane-z-praca,2,2.html) (accessed on 1 June 2020).
- Statistics Poland. 2020. Yearbook of Labour Statistics 2019. Available online: <https://stat.gov.pl/obszary-tematyczne/roczniki-statystyczne/roczniki-statystyczne/rocznik-statystyczny-pracy-2019,7,6.html> (accessed on 1 June 2020).
- Truss, Catherine, David Mankin, and Clare Kelliher. 2012. *Strategic Human Resource Management*. Oxford: Oxford University Press.
- Van der Klink, Jac J. L., Ute Bültmann, Alex Burdorf, Wilmar B. Schaufeli, Fred R. H. Zijlstra, Femke I. Abma, Sandra Brouwer, and Gert Jan van der Wilt. 2016. Sustainable Employability—Definition, Conceptualization, and Implications: A Perspective Based on the Capability Approach. *Scandinavian Journal of Work, Environment & Health* 42: 71–79.
- Virtanen, Marianna, Mika Kivimäki, Marko Elovainio, Jussi Vahtera, Katja Kokko, and Lea Pulkkinen. 2005a. Mental Health and Hostility as Predictors of Temporary Employment: Evidence from Two Prospective Studies. *Social Science & Medicine* 61: 2084–95.
- Virtanen, Marianna, Mika Kivimäki, Matti Joensuu, Pekka Virtanen, Marko Elovainio, and Jussi Vahtera. 2005b. Temporary Employment and Health: A Review. *International Journal of Epidemiology* 34: 610–22. [CrossRef] [PubMed]
- Vives, Alejandra, Marcelo Amable, Montserrat Ferrer, Salvador Moncada, Clara Llorens, Carles Muntaner, Fernando G. Benavides, and Joan Benach. 2013. Employment Precariousness and Poor Mental Health: Evidence from Spain on a New Social Determinant of Health. *Journal of Environmental and Public Health* 2013: 1–10. [CrossRef] [PubMed]
- Wagner, Marcus. 2013. 'Green' Human Resource Benefits: Do They Matter as Determinants of Environmental Management System Implementation? *Journal of Business Ethics* 114: 443–56. [CrossRef]
- WCED—World Commission on Environment and Development. 1987. *Our Common Future*. Oxford: Oxford University Press.
- Wilkinson, Adrian, Malcolm Hill, and Paul Gollan. 2001. The Sustainability Debate. *International Journal of Operations & Production Management* 21: 1492–502.
- Wojtyński, Bogdan, and Paweł Goryński. 2019. Health Situation of the Polish Population and Its Conditions—2018. Available online: <http://www.wsse.katowice.pl/art,343,raport-nizp-pzh-sytuacja-zdrowotna-ludnosci-polski-i-jej-uwarunkowania> (accessed on 5 June 2020).
- World Health Organization. 2020. What Is the WHO Definition of Health? Available online: <https://www.who.int/about/who-we-are/frequently-asked-questions> (accessed on 5 June 2020).
- Ybema, Jan Fekke, Tinka van Vuuren, and Karen van Dam. 2020. HR Practices for Enhancing Sustainable Employability: Implementation, Use, and Outcomes. *The International Journal of Human Resource Management* 31: 886–907. [CrossRef]

- Zeytinoglu, Isik U., Margaret Denton, Jennifer Plenderleith, and James Chowhan. 2015. Associations between Workers' Health, and Non-Standard Hours and Insecurity: The Case of Home Care Workers in Ontario, Canada. *The International Journal of Human Resource Management* 26: 2503–22. [[CrossRef](#)]
- Żolnierczyk-Zreda, Dorota. 2015. The Type of Employment Contract and Employees' Health and Occupational Functioning—The Review of Studies. *Medycyna Pracy* 66: 565–73. [[CrossRef](#)]



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).