




Review

The Determinants and Outcomes of Absence Behavior: A Systematic Literature Review

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Abstract: This research aims to identify and analyze the frequency of the researched determinants and outcomes of absenteeism and thus create an extensive pool of knowledge that can be used for further research. A systematic review, based on Tranfield, Denyer, and Smart's guidelines of 2003, was used. An electronic search of the Scopus database led to the inclusion of 388 peer-reviewed research articles. Finally, 100 top-quality articles were analyzed using content analysis. This article provides several starting points for practitioners and researchers when investigating absenteeism and its potential determinants and outcomes. It also shows that there is an evident imbalance between empirical research dealing with determinants and research dealing with absenteeism outcomes. Employee attitudes stand out among the most repetitive absenteeism causes, while turnover, organizational health, and loss of productivity are some of the most researched absenteeism outcomes. Most research takes place in the manufacturing industries, followed by hospitals and other public service organizations, banks, and insurance companies. This systematic literature review is the first known attempt of this kind of review of the causes and consequences of absence behavior. It covers a wide range of literature published from 1969 until today and includes more than 150 different absenteeism determinants and outcomes.

Keywords: absenteeism; determinants; outcomes; systematic literature review

1. Introduction

The human element plays a significant role in any organization. Employees and human resource management are key determinants of service quality, customer satisfaction and loyalty, competitive advantage, organizational performance, and business success (Bitner et al. 1990; Nickson et al. 2002; Schneider et al. 2003). Many theories, models, and empirical studies in the management literature that underline the crucial role of human resources for organizations support this belief.

One of the most important issues that human resource managers are dealing with is managing their staff's absence behavior, i.e., absenteeism. Absenteeism is a temporary absence from work (temporary withdrawal from an organization) for reasons such as illness, death in the family, or other personal issues (Mathis and Jackson 2004). It is also interpreted as an employee's intentional or habitual absence from work (Cucchiella et al. 2014). According to the literature, there are several types of absenteeism. The most common type is sick leave (Duff et al. 2015; Løkke et al. 2006; Pizam and Thornburg 2000), while some authors consider vacation, maternity leave, military duty, education absence, etc. as forms of absenteeism, too. Some authors differentiate involuntary absenteeism (e.g., certified sickness, funeral attendance) and voluntary absenteeism (e.g., vacation, uncertified sickness) (March and Simon 1958). (Gibson 1966; Johns 1978) distinguish between authorized and unauthorized absenteeism, while (Blau 1985) and (Cheloha and Farr 1980) divide absenteeism into organizationally excused and organizationally unexcused categories, with types such as sickness, jury duty, religious

holidays, funeral leave, and transportation problems belonging to the category of excused forms of absence. Absenteeism is relatively easy to measure. There are two kinds of absence metrics: time lost and absence frequency. Time-lost measures express absenteeism as a sum of units of time (e.g., hours or days) away from work (Steel 2003), while absence frequency is the number of absences in a specific period of time regardless of duration (Chadwick-Jones et al. 1971).

Excessive absenteeism can have a serious impact on any company. The seriousness of this impact is the subject of extensive debate. Some of the negative consequences of absenteeism are high costs, such as direct compensation costs or replacement costs, as well as loss of productivity (Mathis and Jackson 2004). The importance of studying absenteeism lies in the fact that a better understanding of absence behavior can lead to its successful management.

To address this issue, the aim of this study is to identify, summarize, and analyze the antecedents and consequences of absenteeism, as well as their relation to absenteeism itself, in the largest database of peer-reviewed literature—Scopus—using a systematic review methodology. This is the first known attempt of a systematic review of the aforementioned subject. A total of 388 articles were reviewed. Accordingly, three research questions were formulated.

RQ1. What are the most researched determinants and outcomes of accruing employee absence behavior?

RQ 2. How do the related determinants influence absence behavior?

RQ 3. What kind of impact can absenteeism have on related outcomes?

The aim of the first research question is to identify the determinants and outcomes of incurring absenteeism as reported in the literature and highlight the most repetitive. The second research question aims to identify a positive or a negative impact of related determinants on absenteeism, while the third research question intends to identify a positive or a negative impact of absenteeism on related outcomes.

The next section gives an overview of the existing literature reviews on absenteeism determinants and/or outcomes. Section 3 explains the systematic review methodology used in this study, with all the inclusion and exclusion criteria. Section 4 summarizes the main results of the study. This is followed by a discussion section, including recommendations for further research. Finally, the conclusions of the study and limitations of this research are presented in Section 6.

2. Theoretical Background

Absence behavior has been intensively researched for more than five decades. The first significant papers on the systematization of absenteeism causes and consequences date back to the 1970s. The approaches to the classification of factors that influence absence behavior, as well as the consequences of absenteeism, differ from one author to another. This chapter offers a short overview of the most significant authors and their review papers which deal with the determinants and outcomes of absenteeism.

In the 1970s, (Muchinsky 1977) conducted a narrative review of the relationship between absenteeism and personal, attitudinal, and organizational variables. Other than these absenteeism determinants, he researched the relationship between absenteeism and turnover, which represent two of the most important withdrawal behaviors in any organization. Muchinsky also examined absenteeism from several perspectives, including the psychometric problems of measurement, as well as efforts to deal with this phenomenon at a very practical level, including possible solutions for the reduction of employee absenteeism.

(Rhodes and Steers 1981) developed an all-inclusive model of absenteeism that consisted of 8 factor groups which have a possible effect on employee absenteeism: Job situation, Personal characteristics, Pressures to attend, Job satisfaction, Employee Values and Job Expectations, Attendance Motivation, Ability to Attend, and finally, Employee Attendance.

While Muchinsky and Rhodes and Steers mostly dealt with absenteeism determinants, (Goodman and Atkin 1984) went a step further and tried to identify what effect absenteeism has on different

population levels: the individual worker, adjacent workers, the work group, the organization, other social organizations, and society. Among the negative consequences, they pointed out a loss of rewards, disciplinary action, accidents, greater work stress, lower productivity, and higher costs as most important.

In 1985, (Durand 1985) selected several antecedents and consequences of absenteeism and reviewed absenteeism from two perspectives: industrial-organizational psychology and organizational behavior management. His research was focused on influences that are potentially amenable to change. He found that work unit size, worker responsibility, and organizational scheduling are three potential antecedent influences that could be used to improve employee attendance, and that feedback, rewards, and punishments were shown to be effective attendance control procedures.

In the late 1990s, (Harrison and Martocchio 1998) introduced a new time variable in their research of absenteeism causes and its consequences. They used a time-based system to organize and analyze the causes and consequences of absenteeism in the form of a literature review. In that context, they defined personality and demographic characteristics (gender, age, depression, smoking, heavy drinking, drug abuse, and exercise) as long-term causes of absenteeism. Job-related attitudes and social context represented the mid-term group. Variables belonging to this group, such as high levels of job satisfaction, job involvement, organizational commitment, doing meaningful tasks, working in a group or a culture with strict attendance norms, working in a non-union environment (with less paid sick leave), working on the day shift, and working in an organization with flexible scheduling, all contributed to lower absenteeism. Finally, decision-making mechanisms, such as an employee's intentions regarding attendance, belong to a group of short-term causes.

Furthermore, Harrison and Martocchio indicated some variables that affect absenteeism in a positive way. A person who works under attendance incentives, who can somehow avoid acute stressors such as infections, injuries, and injustices, who can discount the utility of non-work behaviors, who enjoys attending work, and who feels social pressure to attend work with no impediments to do so will have lower absenteeism rates.

In the last 10 years, a systematic literature review methodology was applied on two absenteeism-associated studies (Daouk-Öyry et al. 2014; Davey et al. 2009). Both studies were conducted in a hospital setting.

Daouk-Öyry et al. used the PubMed and CINAHL Plus databases, using articles published between 2007 and 2013 in order to examine the antecedent and outcome variables that concern both turnover and absence behavior. In their research, they proposed a multilevel conceptual model called JOINT (Job, Organization, Individual, National and inTerpersonal factors) for the future investigation of absenteeism and turnover among nurses.

The second group of authors (Davey et al. 2009) used a more comprehensive scope of databases (10 of them, including SCOPUS) and a longer period of time (1986–2006). The objective of their research was to identify individual and organizational predictors of the short-term absences of staff nurses reported in the research literature. They reported that the lack of theory about nursing absenteeism was the reason for the inconsistent results found in their review.

Despite of this rather intensive research on the topic in the form of reviews, the characteristics of past research both leave and open up space for new approaches. The existing review papers dealing with absenteeism causes and consequences are mostly of the narrative type. On the other hand, the methodology approach used in this paper—a systematic review—is relatively new and has not been used so far within the area of economics and management, which is a strongly under-research area in this sense. Moreover, a research review for a period of almost 50 years represents one of the additional values of this paper.

3. Methodology

Systematic reviews help to develop a reliable knowledge base for future research in different fields of science. At first, the systematic review was used only in the medical sciences. In 2003, Tranfield,

Denyer, and Smart adjusted the methodology of the systematic review to the management field. Unlike the traditional literature review, a systematic review improves the quality of the review process and outcomes by employing a transparent and reproducible procedure (Tranfield et al. 2003). In order to produce a quality review, scientists should respect the distinct and exacting principles of transparency, inclusivity, explanation, and heuristic (Denyer and Tranfield 2009). According to (Tranfield et al. 2003), a systematic review consists of three steps: (1) a detailed a priori planning of the review, including a precise definition of the aim and research question to be approached in the course of the review; (2) a rigorous execution of the review itself comprising the identification of relevant literature using explicit, reproducible criteria for inclusion and exclusion, which is supported by an appraisal of the quality of the reviewed studies and the strength of their findings; and (3) the reporting and dissemination of the review results. The introductory section explains the aim, the objectives of this review, as well as the research questions (step 1). The selection of the relevant literature (step 2) is presented in the methodological section, while the third step—a synthesis and analytic review of the selected articles and a comprehensive presentation of the results—is presented in the results section.

For the purpose of this study, the Scopus database was chosen as the most relevant source because it is the largest database of peer-reviewed literature. First, a complex keyword search of titles, abstracts and keywords was performed in order to identify studies that focus on the determinants and outcomes of absence behavior. The initial search of the database was undertaken using basic keywords and basic Boolean operators for synonyms: “antecedents” (OR causes, OR determinants, OR predictors), “consequences” (OR outcomes), and “absenteeism” (OR absence behavior). Second, the search was confined to

- document type: article;
- language: English;
- subject area: “Business, Management and Accounting” and “Economics, Econometrics and Finance.”

When these criteria were applied, the initial sample resulted in 388 papers in the period from 1969 to 2018 (26 March).

After the analysis of abstracts and full texts, this sample was narrowed to 124 of the most relevant articles. Articles that refer to school absenteeism, theoretical articles, reviews, and meta-analysis were excluded from further analysis.

The last step was the selection of the best-quality articles. Since paper citations serve as a de facto vote on a given article’s contribution towards knowledge accumulation and development (Saha et al. 2003), the first 100 articles were selected for the next step.

4. Results

This section presents the results of the analysis of the chosen articles. A synthesis of the data started with an analysis of the key design characteristics of each study and the operationalization of the variables involved.

The majority of the selected articles was published over the past 18 years. The distribution of articles by decade was as follows: 1960–1969: 1 article; 1970–1979: 4 articles; 1980–1989: 10 articles; 1990–1999: 27 articles; 2000–2009: 30 articles; 2010–2018: 28 articles.

All 100 articles contain empirical research supported by primary or secondary data. When it comes to study design, both experimental and observational study designs are included. Most of the selected studies used a cross-sectional design (70), 22 of them relied on longitudinal design, 5 were designed as quasi-experimental, and 3 used a mixed-method design.

Data for these studies were collected using different methods. The majority of these studies, 43 of them, used survey questionnaires and organizational databases in combination as their method for data collection. Only databases were relied on in 32 studies, while solely survey questionnaires were used in 20 studies. Other combinations of data collection were also used: database, interview and focus group (1), interview and focus group (1), and interview and survey questionnaire (3).

The majority of the studies was conducted on an individual level and the population consisted of employees. Most research took place among hospital staff, along with manufacturing, government, and bank employees.

The main geographical source of these empirical studies is the United States of America (38 studies), followed by Canada (9) and Australia (8). Three studies among the selected 100 were conducted among a group of countries.

Most of the 100 articles tested multiple variables of either the causes or consequences of absenteeism. 85 articles only tested antecedents, 8 only tested consequences, and 7 tested both. For a comprehensive view, in Section 4.1 absenteeism determinants and the impact of related determinant on absence behavior are described. The positive and negative outcomes of absenteeism are described in Section 4.2. Afterwards, Table 1 presents the summarized results. The table comprises data about the authors sorted into alphabetic order, the year in which each article was published, the article title, study design, study population, citations, types of absenteeism determinant and outcome, and the relation of the article with absenteeism (positive or negative). A negative mark (–) after a related determinant means that the presence of that determinant decreases absenteeism rates. A positive mark (+) means that absenteeism rates are higher if that determinant is present or its value is growing. When it comes to outcomes, a negative mark means that the higher absenteeism, the lower the outcome rates. A positive mark by the outcome stands for an increase in an outcome correlated with the value of absenteeism.

4.1. Determinants of Absenteeism

For the purpose of this article, absence behavior determinants are divided into several categories according to their type: personal, demographic, attitudinal, health-related, organizational, and job determinants.

Among personal factors, conscientiousness, agreeableness and neuroticism are some commonly explored causes of absenteeism (Kolz 1999; Hattrup et al. 1998; Störmer and Fahr 2013). While conscientious and agreeable employees seem to be less absent from work, neuroticism has a positive effect on absence behavior.

Several studies explore age, gender, marital status, the presence of children, race, and ethnicity. While (Garcia 1987) found that age has a positive relationship with absenteeism, (Gellatly 1995), (Gerstenfeld 1969), (Løkke Nielsen 2008), and (Redman et al. 2011) have shown that younger workers are more absent than older ones. Since gender is an important explanatory variable in most absenteeism studies, it is included as an independent variable in all analyses. However, (Vistnes 1997) observed gender as a dependent variable and found that there are some notable differences between the absence behavior of men and women. This study shows a positive correlation between the number of children under the age of six and the likelihood of absence among women. In addition, employees with greater family and personal obligations have a higher frequency of absenteeism (Deery et al. 1995). Married employees are more absent than single ones, and employees belonging to racial or ethnic minorities are absent from work more than their non-minority colleagues (Garcia 1987).

Many authors study attitudes as important determinants of absenteeism in organizations. Job involvement and organizational commitment in interaction show a negative correlation with absence behavior (Blau 1986). The literature on absenteeism suggests that employees might choose to withdraw from an aversive work situation as this makes them dissatisfied. Therefore, it is no surprise that job satisfaction is one of the most researched attitudes (Boon et al. 2014; Yang 2010; Ybema et al. 2010; Cohen and Golan 2007; Steel et al. 2007; Kristensen et al. 2006; Vanden Heuvel 1997; Zaccaro et al. 1991; Rosse and Hulin 1985; Garrison and Muchinsky 1977). In addition, (Wegge et al. 2007) showed that in employees with low job satisfaction the impact of job involvement on absence behavior is much more pronounced than in employees with high job satisfaction.

Table 1. Absenteeism determinants and outcomes.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (–) or Positive (+))	Outcomes
(Ahn et al. 2013)	2013	Construction Workers' Perceptions and Attitudes Toward Social Norms as Predictors of Their Absence Behavior	Cross-sectional	Construction site workers in Michigan, US	12	social controls (–) awareness of company absence rules (–)	
(Arai and Thoursie 2005)	2005	Incentives and Selection in Cyclical Absenteeism	Longitudinal	Private sector establishments in Sweden	40	type of contract (temporary) (–)	
(Austrom et al. 1988)	1988	The Single Worker: An Empirical Exploration of Attitudes, Behavior, and Well-Being	Cross-sectional	Working population, English-speaking adults in Toronto, Canada	3	contemporary single persons (not married) (–)	
(Avery et al. 2012)	2012	Is Relational Demography Relative? How Employment Status Influences Effects of Supervisor-Subordinate Demographic Similarity	Cross-sectional	Civilians, wage-earning employees in US	11	racioethnic similarity with the supervisor (mediating effect of employment status (part-time job)) (–) gender similarity with the supervisor (mediating effect of employment status (part-time job)) (–)	
(Bamberger and Biron 2007)	2007	Group Norms and Excessive Absenteeism: The Role of Peer Referent Others	Cross-sectional	Production workers employed (for at least a year) at a food manufacturing enterprise in Israel	61	permissive referent group absence norms (+)	
(Barmby et al. 2001)	2001	Contracted Workdays and Absence	Cross-sectional	Employees in manufacturing firm operating production lines in UK	13	contracted workdays (–)	
(Bentley et al. 2012)	2012	Perceptions of Workplace Bullying in the New Zealand Travel Industry: Prevalence and Management Strategies	Cross-sectional	Employees in retail and business travel agencies and travel wholesale companies in New Zealand	15	workplace bullying (+)	
(Blau 1986)	1986	Job Involvement and Organizational Commitment as Interactive Predictors of Tardiness and Absenteeism	Cross-sectional	Staff nurses working in a hospital in the US	89	work related attitudes: job involvement and organizational commitment in interaction (–)	
(Bolin and Heatherly 2001)	2001	Predictors of Employee Deviance: The Relationship Between Bad Attitudes and Bad Behavior	Cross-sectional	Entry-level restaurant, supermarket and grocery store employees	40	attitude variables (theft approval, intent to quit, and dissatisfaction) (+)	

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (–) or Positive (+))	Outcomes
(Boon et al. 2014)	2014	Perceived Human Resource Management Practices: Their Effect on Employee Absenteeism and Time Allocation at Work	Cross-sectional	Employees of the governmental organization in Netherlands	5	job satisfaction (–) employee perception of HRM practices (perceptions of the employment relation bundle) (–) HRM practices (people flow, appraisal and reward, employment relation bundle: mediated through job satisfaction) (–)	
(Brooke and Price 1989)	1989	The Determinants of Employee Absenteeism: An Empirical Test of a Causal Model	Cross-sectional	Full-time employees in Veterans Administration medical centre in the US	125	kinship responsibility, organizational permissiveness, role ambiguity and alcohol involvement (+) centralization, pay and job satisfaction (–)	
(Brown 1999)	1999	Worker Absenteeism and Overtime Bans	Longitudinal	Employees of a manufacturing company in Great Britain	8	overtime bans (+) gender (female) (+) age (youngest and oldest) (+) previous absence (+) full-time contract (–) wage (–)	
(Butler et al. 1998)	1998	More Than Cost Shifting: Moral Hazard Lowers Productivity	Longitudinal	Manufacturing industries in the US	11	medical costs (price of health care) (+)	
(Byron and Peterson 2002)	2002	The Impact of a Large-Scale Traumatic Event on Individual and Organizational Outcomes: Exploring Employee and Company Reactions to 11 September 2001	Cross-sectional	Full-time employment MPA and MBA students in the US	40	strain from an acute-extraorganizational stressor (–)	
(Carmeli et al. 2007)	2007	Considerations in Organizational Career Advancement: What Really Matters	Cross-sectional	Employees working in both service and non-service organizations, operating in the communication, electronics, banking, insurance, car providers, software, and advertisement industries in Israel	17		career mobility (+)
(Chullen et al. 2010)	2010	Minimizing Deviant Behavior in Healthcare Organizations: The Effects of Supportive Leadership and Job Design	Cross-sectional	Employees of a healthcare organization in the US	12	perceived organizational support and intrinsic motivation (–)	

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (–) or Positive (+))	Outcomes
(Chung and Schneider 2002)	2002	Serving Multiple Masters: Role Conflict Experienced by Service Employees	Cross-sectional	Telephone service employees in an insurance company in the US	79	role conflict (+)	
(Cohen 1998)	1998	An Examination of the Relationship Between Work Commitment and Work Outcomes Among Hospital Nurses	Cross-sectional	Hospital nurses in Canada	36	job involvement (–)	
(Cohen and Golan 2007)	2007	Predicting Absenteeism and Turnover Intentions by Past Absenteeism and Work Attitudes: An Empirical Examination of Female Employees in Long Term Nursing Care Facilities	Cross-sectional	Employees of long term nursing care facilities in Israel	44	prior absenteeism (+) job satisfaction (–)	
(Colquitt et al. 2002)	2002	Justice in Teams: Antecedents and Consequences of Procedural Justice Climate	Cross-sectional	Employees working in teams in automobile parts manufacturing firm in the US	322	climate level (i.e., the average procedural justice perception within the team) (–)	
(Cornelissen et al. 2013)	2013	Fairness Spillovers-The Case of Taxation	Longitudinal	Households in Germany	5	self-perceived level of well-being (–) perceived unfairness in taxing the rich (–) tenure (+) firm size (+)	
(Dasgupta et al. 2012)	2012	Impact of Managerial Communication Styles on Employees' Attitudes and Behaviours	Cross-sectional	Full-time employees in manufacturing organisations in India	11	emotional bond with organizations (–)	
(De Boer et al. 2002)	2002	Unfairness at Work as a Predictor of Absenteeism	Cross-sectional	Male employees in a security firm in Belgium	101	distributive unfairness (+) procedural unfairness (under the mediating effect of affective commitment) (+)	

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (−) or Positive (+))	Outcomes
(Deery et al. 1995)	1995	The Determinants of Absenteeism: Evidence from Australian Blue-Collar Employees	Cross-sectional	Employees in a motor-vehicle company in Australia	10	accumulated sick pay (−) job motivation (−) external responsibilities (greater family and personal obligations) (+) routinization (mediated through job motivation) (+) absence culture (mediated through job motivation) (−) supervisory support (mediated through job motivation) (−) previous disciplinary warnings (−) accumulation of sick pay (−)	
(Deery and Iverson 2005)	2005	Labor-Management Cooperation: Antecedents and Impact on Organizational Performance	Longitudinal	International bank employees in Australia	56	union loyalty (−)	
(Deery et al. 2014)	2014	Can Union Voice Make a Difference? The Effect of Union Citizenship Behavior on Employee Absence	Longitudinal	International bank employees in Australia	4	union citizenship behavior (helping fellow members with workplace grievances) (−)	
(Dehue et al. 2012)	2012	Coping with Bullying at Work and Health Related Problems	Cross-sectional	Residents who work at least eight hours a week in any organization in the Netherlands where they have both colleagues and a manager	20	bullying (+)	
(Diestel and Schmidt 2012)	2012	Lagged Mediator Effects of Self-Control Demands on Psychological Strain and Absenteeism	Longitudinal	Employees in a health insurance company and a financial service institution in Germany	20	workload (mediated through self-control demands) (+)	
(Dionne and Dostie 2007)	2007	New Evidence on the Determinants of Absenteeism Using Linked Employer-Employee Data	Longitudinal	Establishments and their workers in Canada	48	work arrangements: standard weekday work hours, work-at-home options, and reduced work weeks (−) shift work and compressed work weeks (+)	
(Drakopoulos and Grimani 2013)	2013	Injury-Related Absenteeism and Job Satisfaction: Insights from Greek and UK Data	Cross-sectional	Individuals in Greece and the UK	3	job satisfaction (−)	

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (–) or Positive (+))	Outcomes
(Farrell and Petersen 1984)	1984	Commitment, Absenteeism, and Turnover of New Employees: A Longitudinal Study	Longitudinal	Nurses and accountants in the US	31	commitment (–)	turnover (+)
(Festing et al. 1999)	1999	Financial Participation in Europe—Determinants and Outcomes	Cross-sectional	HMR managers	31	profit sharing (–)	
(Frick and Malo 2008)	2008	Labor Market Institutions and Individual Absenteeism in the European Union: The Relative Importance of Sickness Benefit Systems and Employment Protection Legislation	Cross-sectional	Employees and self-employed	30	sickness benefits (+)	
(Frooman et al. 2012)	2012	Transformational and Passive Avoidant Leadership as Determinants of Absenteeism	Cross-sectional	Establishments and their workers in Canada	3	to illegitimate: transformational leadership (–) passive avoidant leadership (+) to legitimate: passive avoidant leadership (–)	
(Fugate et al. 2012)	2012	Managing Employee Withdrawal During Organizational Change: The Role of Threat Appraisal	Cross-sectional	Individuals in Greece and the UK	48	threat appraisals (+)	
(Garcia 1987)	1987	Sick-Time Usage by Management and Professional Employees in the Public Sector	Cross-sectional	Nurses and accountants in the US	6	age (+) gender (woman) (+) race and ethnic (minorities) (+) education (–) marital status (+) tenure (–) job level (–) contact arrangements (flex-time and compressed work weeks vs. fixed schedule) (+)	

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (−) or Positive (+))	Outcomes
(Garrison and Muchinsky 1977)	1977	Attitudinal and Biographical Predictors of Incidental Absenteeism	Cross-sectional	Accounting department employees in the US	20	for unpaid absence: satisfaction with work (−) overall job satisfaction (−) age (−) tenure (−) for paid absence: age (+) tenure (+)	
(Gellatly 1995)	1995	Individual and Group Determinants of Employee Absenteeism: Test of a Causal Model	Cross-sectional	Nursing and food services employees in a mid-size chronic care hospital in Canada	121	individual and group-level factors: tenure (+) age (−) affective commitment (−) continuous commitment (+) interactional justice (supervisor) (−) perceived absence norm (+)	
(Gellatly and Luchak 1998)	1998	Personal and Organizational Determinants of Perceived Absence Norms	Cross-sectional	Hospital employees in Canada	6	perceived absence norms (to future absence) (+)	employees' normative perceptions (influenced by their prior absence and by the average level of absence within both their immediate work group and the absence culture to which they belonged)
(Gerstenfeld 1969)	1969	Employee Absenteeism: New Insights: Data Reveal External Factors	Cross-sectional	Laundry and drycleaning industry employees in the US	5	fairness of the immediate supervisor (−) working conditions (−) age (−) child care (−)	
(Goldberg and Waldman 2000)	2000	Modelling Employee Absenteeism: Testing Alternative Measures and Mediated Effects Based on Job Satisfaction	Cross-sectional	Hospital employees in the US	45	job satisfaction (unrelated to absenteeism) wage (−) health (−)	

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (–) or Positive (+))	Outcomes
(Hassan et al. 2014)	2014	Does Ethical Leadership Matter in Government? Effects on Organizational Commitment, Absenteeism, and Willingness to Report Ethical Problems	Cross-sectional	Employees of a state government agency in the US	20	ethical leadership (–)	
(Hatrup et al. 1998)	1998	Prediction of Multidimensional Criteria: Distinguishing Task and Contextual Performance	Cross-sectional	Entry-level customer service and sales representatives from several stores of a retail chain in Mexico	62	conscientiousness (–)	organizational citizenship behavior
(Hausknecht et al. 2008)	2008	Work-Unit Absenteeism: Effects of Satisfaction, Commitment, Labor Market Conditions, and Time	Longitudinal	Employees in a State department of transportation in the US	59	shared (group) job satisfaction and organizational commitment in interactions (–) unit-level job satisfaction and organizational commitment (–)	
(Hemingway and Smith 1999)	1999	Organizational Climate and Occupational Stressors as Predictors of Withdrawal Behaviours and Injuries in Nurses	Cross-sectional	Hospital nurses in Canada	136	Organizational climate dimensions (have no effect on absenteeism)	
(Herrmann and Rockoff 2012)	2012	Worker Absence and Productivity: Evidence from Teaching	Cross-sectional	Teachers in the US	14		productivity (–)
(Ichino and Riphahn 2005)	2005	The Effect of Employment Protection on Worker Effort: Absenteeism During and After Probation	Longitudinal	Bank employees in Italy	122	employment protection (–)	
(Ivancevich 1986)	1986	Life Events and Hassles as Predictors of Health Symptoms, Job Performance, and Absenteeism	Cross-sectional	Assembly line employees from a medium-sized non-union manufacturing corporation in the US	46	hassel daily uplifts (–)	
(Iverson and Buttigieg 1999)	1999	Affective, Normative and Continuance Commitment: Can the ‘Right Kind’ of Commitment Be Managed?	Cross-sectional	Fire fighting and rescue service employees in Australia	135	affective and normative commitment (–)	
(Iverson et al. 1998)	1998	Affectivity, Organizational Stressors, and Absenteeism: A Causal Model of Burnout and Its Consequences	Cross-sectional	Public hospital employees	160	high role stress (+) high personal accomplishment, workload, peer support, co-worker support, personal affectivity, autonomy and supervisory support (–)	

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (–) or Positive (+))	Outcomes
(Johnson and O’Leary-Kelly 2003)	2003	The Effects of Psychological Contract Breach and Organizational Cynicism: Not All Social Exchange Violations are Created Equal	Cross-sectional	Bank employees in the US	221	psychological contract breach (+)	
(Johnson et al. 2014)	2014	Outcomes of Absence Control Initiatives: A Quasi-Experimental Investigation into the Effects of Policy and Perceptions	Quasi-experimental (pre-test–post-test without control group)	Employees in two plants of a large unionized automobile parts manufacturer in the US	5	absence policy change (–) (for casual absence) (+) (for family and medical leave act absence)	
(Jones et al. 2009)	2009	Comparative Effects of Race/Ethnicity and Employee Engagement on Withdrawal Behavior	Cross-sectional	Employees in the US	13	employee engagement (–)	
(Judge and Martocchio 1996)	1996	Dispositional Influences on Attributions Concerning Absenteeism	Mixed method	University employees in the US	23	personal illness (+) presence of kinship responsibilities (+)	
(Jung and Takeuchi 2010)	2010	Performance Implications for the Relationships among Top Management Leadership, Organizational Culture, and Appraisal Practice: Testing Two Theory-Based Models of Organizational Learning Theory in Japan	Cross-sectional	SMEs in the manufacturing sector in Japan	12	supportive leadership (–)	workforce productivity (–)
(Kim and Garman 2003)	2003	Financial Stress and Absenteeism: An Empirically Derived Model	Quasi-experimental (pre-test–post-test without control group)	White-collar workers of an insurance company in the US	23	financial stress (+)	
(Kolz 1999)	1999	Personality Predictors of Retail Employee Theft and Counterproductive Behavior	Quasi-experimental	Employees working for a women’s apparel retailer with several stores in the New York City area in the US	13	personality: conscientiousness, agreeableness	
(Kopelman and Schneller 1981)	1981	A Mixed-Consequence System for Reducing Overtime and Unscheduled Absences	Quasi-experimental (pre-test–post-test without control group)	Employees of a 220-bed proprietary medical center in the US	15	mixed consequence control system (punishment and rewards) (–)	operational efficiency (–)

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (–) or Positive (+))	Outcomes
(Krausz et al. 1998)	1998	Distal and Proximal Influences on Turnover Intentions and Satisfaction: Support for a Withdrawal Progression Theory	Quasi-experimental (pre-test without control group)	Non-academic employees of a large academic institution in Israel	20		satisfaction (–) intention to leave (+)
(Kristensen et al. 2006)	2006	Determinants of Absenteeism in a Large Danish Bank	Cross-sectional	The study is based on information from approx. 7,000 employees in 500 different bank units in Denmark	18	job satisfaction (–)	
(Landeweerd and Boumans 1994)	1994	The Effect of Work Dimensions and Need for Autonomy on Nurses' Work Satisfaction and Health	Cross-sectional	Nurses in 16 randomly chosen hospitals in the Netherlands	80	preference to autonomy (moderating effect of the presence of autonomy) (–) traditional task-oriented nursing care system (moderating effect of the preference for autonomy) (+)	
(Leśniowska et al. 2014)	2014	Costs of Diabetes and Its Complications in Poland	Cross-sectional	Data acquired from the National Health Fund (NFZ), ZUS (Social Insurance Institution), and from GUS (Poland's Central Statistical Office) in Poland	14	diabetes mellitus (dm) (–)	
(Løkke Nielsen 2008)	2008	Determinants of Absenteeism in Public Organizations: A Unit-Level Analysis of Work Absence in a Large Danish Municipality	Cross-sectional	Data from approximately 5,000 employees in 400 departments of day-care centres in Denmark	12	age (–) deputy head gender (woman) (–) deputy head's absence (+)	
(Mason and Griffin 2003)	2003	Group Absenteeism and Positive Affective Tone: A Longitudinal Study	Longitudinal	State government agency employees in Australia	46	positive affective tone (–)	
(Mchugh 2002)	2002	The Absence Bug: A Treatable Viral Infection?	Cross-sectional	Employees in local government organisations in Ireland	10		organizational health (employee morale, stress level, quality communication processes, satisfaction) (–)
(Morrow et al. 1999)	1999	Using Absenteeism and Performance to Predict Employee Turnover: Early Detection Through Company Records	Cross-sectional	Data from the personal files of life insurance company employees in the US	24		voluntary turnover (+)

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (–) or Positive (+))	Outcomes
(Moscarola et al. 2016)	2016	Absenteeism, Childcare and the Effectiveness of Pension Reforms	Cross-sectional	Women registered in the private-sector employees' scheme in Italy	3	governmental postponement of retirement and poor supply of childcare services (–)	
(Mukhopadhyay et al. 1997)	1997	Information Technology Impact on Process Output and Quality	Cross-sectional	Data from 46 mail processing centres in the US	142		quality and output (–)
(Nguyen et al. 2016)	2016	When the Going Gets Tough, the Tough Keep Working: Impact of Emotional Labor on Absenteeism	Cross-sectional	Public hospital nurses in Australia	5	emotional labor: surface acting (+)	
(Nicholson et al. 1978)	1978	Shiftwork and Absence: An Analysis of Temporal Trends	Cross-sectional	250 male maintenance engineers attached to several production and ancillary departments of a large steelworks in the UK	18	shiftwork: shift-turn, days of the week, position in the shift cycle	
(Orpen 1979)	1979	The Effects of Job Enrichment on Employee Satisfaction, Motivation, Involvement, and Performance: A Field Experiment	Quasi-experimental (pre-test-post-test with control group)	Local government agency employees in South Africa	66	job enrichment (–)	
(Parasuraman 1982)	1982	Predicting Turnover Intentions and Turnover Behavior: A Multivariate Analysis	Cross-sectional	Non-supervisory plant workers in a medium-sized food processing company in the US	94		turnover (+)
(Pizam and Thornburg 2000)	2000	Absenteeism and Voluntary Turnover in Central Florida Hotels: A Pilot Study	Cross-sectional	Hotel human resources managers in the US	51	work-related factors: morale, satisfaction with compensation and benefits, fulfilment of job expectations, level of pay, and training (–) personal characteristics: parenthood status (+)	
(Price 1998)	1998	Estimation of Causal Model of Absenteeism	Cross-sectional	Hospital employees in the US	6	kinship responsibility, organizational permissiveness, pay and supervisory support	
(Punnett et al. 2007)	2007	Job Attitudes and Absenteeism: A Study in the English Speaking Caribbean	Cross-sectional	Employees in 5 manufacturing companies in Barbados	27	employee's levels of satisfaction with co-workers, activity, responsibility, and job security, loyalty to the organization	

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (–) or Positive (+))	Outcomes
(Qin and Jiang 2011)	2011	The Impact of Natural Disaster on Absenteeism, Job Satisfaction, and Job Performance of Survival Employees: An Empirical Study of the Survivors in Wenchuan Earthquake	Mixed method	Survival employees of earthquake-affected enterprises in China	4	earthquake (–)	
(Redman et al. 2011)	2011	Working Here Makes Me Sick! The Consequences of Sick Building Syndrome	Cross-sectional	Police officers working in air-conditioned buildings in the Caribbean region	6	sick building syndrome (+) age (–)	
(Rentsch and Steel 1998)	1998	Testing the Durability of Job Characteristics as Predictors of Absenteeism Over a Six-Year Period	Longitudinal	Civilian employees from a large military organization in the US	49	individual job characteristics: skill variety, task identity, autonomy (–)	
(Røed and Fevang 2007)	2007	Organizational Change, Absenteeism, and Welfare Dependency	Longitudinal	Nurses in Norway employed by a municipality or county who did not receive any form of public income support by the end of October 1992 and who were below 53 years of age at that time	31	downsizing processes (+)	
(Rosse and Hulin 1985)	1985	Adaptation to Work: An Analysis of Employee Health, Withdrawal, and Change	Longitudinal	Hospital employees in the US	100	job satisfaction (–)	
(Saxton et al. 1991)	1991	Antecedents and Consequences of Emotional Exhaustion in the Airline Reservations Service Sector	Cross-sectional	Employees in the reservation department of an airline company in the US	37	emotional exhaustion (+)	
(Scoppa 2010)	2010	Worker Absenteeism and Incentives: Evidence from Italy	Cross-sectional	Data from the Bank of Italy Household Survey of about 8,000 households in Italy	11	type of employment (self-employed workers vs. employees) public employees vs. private size of the firm (+) threat of unemployment (–) type of contract (temporary contract vs. permanent) tenure (+)	
(Somers 1995)	1995	Organizational Commitment, Turnover and Absenteeism: An Examination of Direct and Interaction Effects	Cross-sectional	Nurses in an urban hospital in the US	233	affective commitment (–) continuance commitment and affective commitment (–)	

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (−) or Positive (+))	Outcomes
(Steel et al. 2007)	2007	Timeframes and Absence Frameworks: A Test of Steers and (Rhodes' 1978) Model of Attendance	Longitudinal	Federal civil service employees in the US	9	job satisfaction (−)	
(Störmer and Fahr 2013)	2013	Individual Determinants of Work Attendance: Evidence on the Role of Personality	Longitudinal	Data from the wages of 2004 to 2006 from the German Socio-Economic Panel	5	conscientiousness (−) agreeableness (−) neuroticism (+)	
(Tharenou 1993)	1993	A Test of Reciprocal Causality for Absenteeism	Longitudinal	Electrical apprentices in Australia	60	for uncertified absence: supervisory style (−)	for uncertified absence: job satisfaction, training achievement, and supervisor-rated performance and attendance (−)
(Theorell et al. 1994)	1994	'Person Under Train' Incidents from the Subway Driver's Point of View-A Prospective 1-Year Follow-Up Study: The Design, and Medical and Psychiatric Data	Mixed method	Subway drivers in Sweden	27	injury (+)	
(Torre et al. 2015)	2015	Internal and External Equity in Compensation Systems, Organizational Absenteeism and the Role of Explained Inequalities	Cross-sectional	Data from an annual labour-market survey conducted by the General Confederation of Italian Industry in 2009 in Italy	4	internal pay equity (−) external pay equity (−) (higher at blue-collar workers)	
(Vanden Heuvel 1997)	1997	Absence Because Oof Family Responsibilities: An Examination of Explanatory Factors	Cross-sectional	Employee data collected for the 1992 Australian Dependent Care Study by the Australian Institute of Family Studies in Australia	18	job satisfaction (only for men) (−) workplace flexibility (only for woman) (−) child care arrangements (pre-schooler parents) (−) presence of dependent children (−)	
(Vistnes 1997)	1997	Gender Differences in Days Lost from Work Due to Illness	Cross-sectional	Data from the household component of the 1987 National Medical Expenditure Study in the US	82	health status (self-reported health status, medical events) (both genders) (+) economic variables (presence of sick leave, private insurance, family income (−) for woman) presence of children under age six (woman) (+)	

Table 1. Cont.

Authors	Year	Title	Study Design	Study Population	Citations	Determinants and Impact Direction (Negative (–) or Positive (+))	Outcomes
(Wagar 2001)	2001	Consequences of Work Force Reduction: Some Employer and Union Evidence	Cross-sectional	Employer and union respondents in Canada	12	workforce reduction (+)	
(Waters and Roach 1979)	1979	Job Satisfaction, Behavioral Intention, and Absenteeism as Predictors of Turnover	Longitudinal	Female clerical employees in one section of a regional office of an insurance company in the US	27		turnover (+)
(Wegge et al. 2007)	2007	‘Taking A Sickie’: Job Satisfaction and Job Involvement as Interactive Predictors of Absenteeism in a Public Organization	Cross-sectional	Employees in a civil service organization of a federal state in Germany	67	job involvement and job satisfaction in interactions	
(Weiner 1980)	1980	Determinants and Behavioral Consequences of Pay Satisfaction: A Comparison of Two Models	Cross-sectional	Employees in a medium-sized (350 employees) public-service organization	56	pay satisfaction (–)	
(Winkelmann 1999)	1999	Wages, Firm Size and Absenteeism	Longitudinal	Data on German workers for 1985–1988 from the German Socio-Economic Panel	29	firm size (mediated with wage) (+)	
(Yang 2010)	2010	Antecedents and Consequences of Job Satisfaction in the Hotel Industry	Cross-sectional	Frontline employees in international tourist hotels in Taiwan	75	job satisfaction (–) organizational commitment (–)	
(Ybema et al. 2010)	2010	Antecedents and Consequences of Employee Absenteeism: A Longitudinal Perspective on the Role of Job Satisfaction and Burnout	Longitudinal	Employee data from a cohort study (Study on Musculoskeletal disorders, Absenteeism, Stress and Health) in the Netherlands	55	job satisfaction (–) burnout (+)	job satisfaction (+) future absence (+)
(Zaccaro et al. 1991)	1991	Prior Absenteeism, Supervisory Style, Job Satisfaction, and Personal Characteristics: An Investigation of Some Mediated and Moderated Linkages to Work Absenteeism	Cross-sectional	Non-managerial employees of a chemical manufacturing company in the US	37	prior absence (+) job satisfaction (–) gender (woman) (+)	
(Zeytinoglu et al. 2004)	2004	Part-Time and Casual Work in Retail Trade: Stress and Other Factors Affecting the Workplace	Cross-sectional	Occupational health and safety representatives and workers in retail trade in Canada	34	part-time, casual work, stress (characteristics of and working conditions) (+)	
(Zuba and Schneider 2013)	2013	What Helps Working Informal Caregivers? The Role of Workplace Characteristics in Balancing Work and Adult-Care Responsibilities	Cross-sectional	Workplace-related variables in the fourth European Working Condition Survey	11	working contract (flexible) (+) interpersonal relations at work: having good friends at work (+); feeling at home at work (–) family domain stressors: having children, caring for a sick or disabled adult and being married (+)	

Source: the authors' research.

Among the health factors that influence an employee's absence behavior, stress seems to be the most important one (Zeytinoglu et al. 2004; Kim and Garman 2003; Iverson et al. 1998).

Research shows that there is a relationship between absenteeism and many organizational and job characteristics. When it comes to firm size, larger firms seem to have higher absence rates (Scoppa 2010). Even when mediated with wages, this difference is bigger (Winkelmann 1999). Self-employed workers are less absent than workers employed by others; public workers are more absent than private workers; workers on a temporary contract are less absent than workers who have a permanent contract (Scoppa 2010). Employees with a five-day work week have smaller absence rates than employees who work four days a week (Barmby et al. 2001). Shift-turn (mornings, afternoons, and nights), days of the week (Sunday to Saturday), and position in the shift cycle (start, middle, and end cycle) also affect absenteeism (Nicholson et al. 1978).

Absence controls can have a significant effect on absence behavior (Kopelman and Schneller 1981). Improving an absence policy by introducing a punishment and reward system in the organization will reduce casual absences but also increase Family and Medical Leave Act (FMLA) absences (Johnson et al. 2014). The FMLA covers an absence caused by the birth of a child, care for a newborn or adopted child, care for an employee's spouse, child, or parent who has a serious health condition, etc.

4.2. Outcomes of Absenteeism

Absenteeism lowers process quality and output (Morrow et al. 1999) as well as a firm's operational efficiency (Kopelman and Schneller 1981).

Absenteeism affects other withdrawal behaviors, such as turnover. Some articles show a strong positive relationship between absenteeism and turnover (Morrow et al. 1999; Farrell and Petersen 1984; Waters and Roach 1979), while the data from (Parasuraman 1982) indicate a lagged effect between prior absenteeism and turnover.

Besides the above, the presence of absence behavior seems to aggravate overall organizational health; employees in such organizations have lower morale, high levels of stress, poor communication, and the relationships between management and staff are poor (Mchugh 2002).

Additionally, absenteeism has a negative impact on organization productivity (Herrmann and Rockoff 2012; Jung and Takeuchi 2010). The expected loss in daily productivity from employing a temporary substitute is on par with replacing a regular worker of average productivity with one at the 10th–20th percentile of productivity (Herrmann and Rockoff 2012).

5. Discussion

In accordance with previous research, this literature review shows that absenteeism can be caused by many personal, demographic, attitudinal, health-related, organizational, and job determinants. When considering the time dimension as defined by (Harrison and Martocchio 1998), most of the studies are dealing with long-term and mid-term causes of absenteeism, such as gender, age, family obligations and job-related attitudes.

In relation to the research questions, this literature review shows that what stand out the most as the most repetitive absenteeism causes are job satisfaction (18 times), organizational commitment (11), age (7), pay satisfaction (5), job involvement (3), and wages (3). Out of these six most-mentioned causes of absenteeism, four of them (job satisfaction, organizational commitment, pay satisfaction, and job involvement) belong to employees' attitudes. This is not a surprise since employees' attitudes in general represent one of the most researched topics of organizational behavior in general as well. This indicates that an additional, separate literature review could be performed focusing solely (separately) on employees' attitudes as predictors of absenteeism.

This research also showed that there is an evident misbalance between empirical research dealing with absenteeism determinants and research dealing with its outcomes. In the majority of research, absenteeism outcomes have negative implications: e.g., absence behavior lowers productivity, satisfaction, organizational health, outputs, and quality, while it increases turnover and costs,

which is in line with (Goodman and Atkin 1984) conclusions. The measurement and management of absenteeism outcomes are issues of exceptional importance for every organization, not only in regard to additional costs, incurred either for the employer or for society (systems of social/health insurance, i.e., sickness benefits), but also in regard to an organization's development and sustainability.

The distribution of the publishing times of articles selected for this research, i.e., the fact that two-thirds of the analyzed articles were published in the last 20 years, shows that interest in this topic is constantly growing. The analysis also indicates a disparity in the number of articles and the industries in which this research takes place: most research deals with absenteeism in manufacturing industries, followed by hospitals and public service organizations, and then banks and insurance companies. On the other hand, some industries are strongly under-researched (e.g., tourism or the hospitality industry). This surely opens up a potentially interesting research area where it is to be expected that, due to its high labor intensity, the connections between absenteeism behavior and its causes and consequences would be easier to detect and measure.

6. Conclusions

Absenteeism is a crucial issue for human resource management. The understanding of absence behavior starts with an understanding of its determinants and outcomes. This article summarizes some of the possible causes and consequences of absenteeism as found in the articles of the Scopus database for a 49-year period by using the methodology of a systematic literature review. This kind of approach to the literature review has enabled the creation of an accessible pool of knowledge about the determinants and outcomes of absence behavior. It is important to emphasize that this research can be easily replicated because it followed the principles of transparency, inclusivity, explanation, and heurism.

Even though this article provides several starting points for practitioners and researchers when investigating absenteeism and its determinants and outcomes, it is not exempt from limitations: it is limited to the Scopus database, empirical evidence, and the English language. A further extension, including other databases, a review of meta-analyses and/or reviews, as well as articles in other languages, would provide interesting areas for future research.

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