Original Article

Identifying Specific Human Resource Management Practices for Aging Workforce in Public Organizations

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A B S T R A C T

Introduction: The main capital of any organization is its human resources (HR). Organizations invest substantial costs in attracting, retaining, and training individuals. Therefore, it is essential to identify and implement appropriate practices to preserve and enhance HR. Aging of employees is an inevitable phenomenon that poses challenges to all organizations, irrespective of specific geographical locations, because the employees will get old and leave the organization. This research aims to identify HR management practices for aging employees in public organizations in Jahrom City, Fars Province, Iran, in the year 2022.

Methods: This study utilizes meta-synthesis and Delphi methods to extract and identify management practices for aging HR. In the meta-synthesis section, the library method was used and community under study in the Delphi section included 28 academic (university professors with doctorate degrees in HR or organizational behavior) and organizational (senior managers and HR managers of public organizations in Jahrom) experts. The research tool used in the Delphi section was a questionnaire conducted in 3 rounds.

Results: Through the study of the sources using meta-synthesis method, a total of 79 organizational practices were identified, categorized into 11 main dimensions. After three rounds, a consensus was reached on 60 practices, organized into 9 main dimensions, and the Delphi rounds were concluded. In the final round, no new practices were suggested or removed. Due to the minimal differences in the Kendall coefficient among the different rounds, the Delphi rounds were concluded.

Conclusion: It is necessary to plan and implement all these practices in parallel and simultaneously. However, as the most crucial management measure is planning, there is a need for planning, coordination, and harmonization at the legislative, administrative, and recruitment levels. Implementing the proposed practices through organizational experts, HR managers, and the active participation of aging employees in implementing practical practices will lead to better execution.

Keywords: Human Resources Management, Aging, Workforce, Delphi, Meta-Synthesis

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Introduction

The phenomenon of population aging is being experienced by many developed and less developed countries. This trend puts organizations' ability to manage workforce changes and anticipate workforce planning needs to sustain continuous economic growth to the test. Italy is one of the countries that has been most affected by this trend. Low birth rates and a gradual increase in the number of elderly individuals are

among the reasons for the aging of the workforce. These factors pose a threat to future economic development, thus calling for new approaches to HMR in organizations and increased participation of older individuals in the workforce (1). In 2016, approximately one in six Americans was 65 years old or older, constituting 15.4% of the total population. The U.S. Census Bureau (2017) projected that the population ratio in this age group is expected to reach 20.6% by 2030, or approximately one in every five Americans. These population changes have led to the aging of the workforce, with the percentage of workers aged 55 or older increasing from 11.9% in 1996 to 22.4% in 2016 and projected to reach 28.8% by 2026. By 2026, approximately 8.7% of employees will be over 65 years old (2).

As per the projection by the United Nations (3), the population structure of Iran is moving towards a trend where, by the year 2050, the population growth for those over 65 years will exceed that of the 0-14 age group. Moreover, the age groups of 15-24 and 25-64 will face a decrease. In all organizations, including publical bodies, employees are not exempt from this rule and all will encounter the phenomenon of aging, with the organization not evading the management of elderly human resources. Therefore, one approach to addressing this challenge is to support individuals in preserving longer and healthier work lives, a practice actively growing in success. While the benefits of promoting and empowering successful elderly individuals in the workforce are widely acknowledged, no instrument for measuring this structure has been published to date (4). Generally, human resources management (HRM) practices strategically can contribute to creating and sustaining a competitive advantage in the market. This is feasible due to the alignment of individual, company, and HRM goals (5).

Through the examination of conducted studies, it is evident that a comprehensive and complete study on the identification of HRM practices of elderly employees in publical organizations, both domestically and internationally, has not been undertaken, and even research in English generally focused on examining one or few such practices. Therefore, using meta-synthesis, through a review of the conducted research, the extraction of appropriate practices and the provision of a comprehensive picture were addressed. Moreover, with the approaching elderly population reaching nearly one-third of the total population by the year 2050 and its extension to the workforce of publical organizations, the significance of identifying elderly-centric human resource initiatives in publical bodies becomes apparent. Thus, the objective of this research is to employ a meta-synthesis approach, including a Delphi method, to identify elderly-centric HMR practices in the publical organizations of Jahrom County.

Methods

Stuudy Design

This research is considered applied in terms of objective, and descriptive and survey-based in terms of its method. From a research approach perspective, a mixed method (quantitative and qualitative) was employed. In the first phase, through meta-synthesis, in consideration of the multidimensional nature of the research topic, and to present a more comprehensive picture compared to previous research, the Sandelowski and Barroso (6) model was utilized. This model encompasses seven steps: formulating the research questions, systematically reviewing texts, searching and selecting documents, extracting information, analyzing findings, controlling data, and ultimately presenting the results. To gather qualitative data, a comprehensive review of research literature was conducted with the aim of identifying HRM practices for elderly workforce from credible sources, by searching Google Scholar, including databases such as ScienceDirect, Emerald, Springer, JSTOR and others. Here, using the English keywords: "HRM practices + aging" and "HRM practices + older workers", a search for articles and online books in English language was conducted within the time frame of 1990 to 2022. The inclusion criterion for resources was proposed HMR practices relevant to elderly employees from reputable journals. Ultimately, a selection of 79 items was sent to experts in the form of a Delphi questionnaire.

In the second phase, the intended questionnaire was sent to a total of 28 academic and organizational experts. Sampling was carried out using purposeful and snowball methods. Academic experts consisted of 13 individuals holding doctorate degrees in management with specializations in either HRM or organizational behavior. Organizational experts included 15 officials from publical organizations in the Jahrom county. The condition for panel inclusion was the willingness to participate until the end of the Delphi rounds. The questionnaire was administered to organizational experts in a face-to-face format, and for academic experts, an electronic questionnaire was sent in three rounds. Each time, the data analysis was conducted using SPSS 26 and Kendall's test. The criteria for item selection required obtaining an average score higher than 3 (7).

Data collection

First stage: meta-synthesis

The study commenced with the identification of HRM practices for elderly employees in publical organizations. Various processes have also been introduced by different researchers for conducting meta-synthesis, in the present study the Sandelowski and Barroso (6) method consisting of seven steps was utilized. Following the formation of the study repository, the Prisma method (8) was used for screening the repository. The meta-synthesis process was carried out in seven steps as follows.

First step: formulating the research questions

The first step in meta-synthesis is the formulation of research questions. The initial question to initiate meta-synthesis is "what." In Table 1, the categorization and analysis of the dimensions of elderly HMR practices are under investigation.

Second step: systematically reviewing texts

To establish a data repository, literature review was conducted using Google Scholar, with the keywords "HRM practices + aging" and "HRM practices + older workers" between the years 1990 and 2022, selecting the English language. This search yielded 1974 sources including articles and e-books. The sources were obtained from reputable journals such as Emerald, ScienceDirect, Springer, and JSTOR. and were downloaded and utilized for the study.

Third step: searching and selecting documents

In this study, the Prisma flowchart (8) was employed for screening the study repository. Due to the unavailability of Google Scholar, a portion of the sources, listed as "other sources," totaling 11, was added to the examined sources using the Prisma approach. During the search process, various parameters such as title, abstract, content, article details (author name, year), and more were considered, and sources not directly relevant to the research question and aim were excluded. Out of the total 1974 sources obtained through the two mentioned keywords, along with 11 additional sources, the total number of sources reached 1985. In the following, 64 duplicate sources were removed, leaving 1921 sources. Through a review of source titles, 1476 sources were excluded due to their lack of relevance to the subject, reducing the total to 445 sources. Upon reviewing the content of the sources, 400 sources were deemed inappropriate and removed, resulting in a final selection of 45 sources, including articles and e-books, which were utilized for the qualitative section and the development of the Delphi questionnaire (Figure 1).

The acceptance and rejection criteria for the sources are provided in Table-2.

Fourth step: extracting information from articles

The fourth phase involved the extraction of research results and information. In this stage, selected articles and sources were manually extracted and classified. Out of a total of 45 sources, 238 items were identified.

Fifth step: analyzing the qualitative data

In this stage, following the examination and reading of each source (across all sections - abstracts, theoretical foundations, findings, discussions, conclusions, and practical suggestions), concepts relevant to the articles and sources were individually enumerated. After repeated iterations, concept amalgamation based on semantic similarities occurred, forming sub-themes, which were then further categorized into additional sub-themes based on commonalities and disparities. Ultimately, out of a total of 45 sources, 238 items were identified. Two items were removed: the first pertained to the potential for transferring or promoting younger employees due to their incongruence with elderly-oriented practices, and the second related to job evaluations due to their generic nature, leaving 236 remaining items. Overlapping, repetitive, or incongruous elements were removed, while similar or identical elements were merged and integrated into a singular human resources measure, resulting in the categorization of 11 dimensions and 79 practical practices and the initial draft of the Delphi questionnaire was conducted.

Table 1. Research questions in the meta-synthesis section

Research questions	Parameter
What are the elderly-focused human resource management practices?	what
What are the dimensions and components of elderly-focused human resource management actions?	who
What elderly-focused human resource management actions have been identified and proposed between 1990 and 2022?	when

Table 2. Inclusion and exclusion criteria of the sources

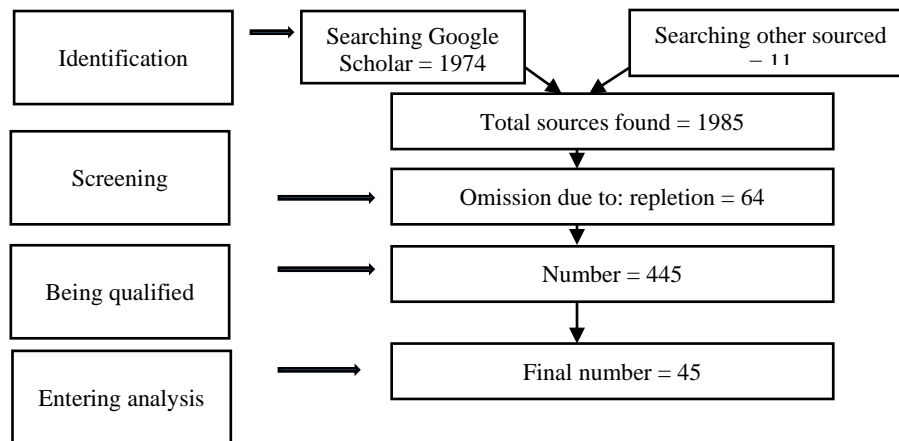| Exclusion criterion	Inclusion criterion	Index
Beyond the mentioned time Period	HRM practices + aging HRM practices + older workers	Keywords
	all countries	Geographical limit
Lack of access to full text	1990-2022	Time period
	Quantitative-qualitative-mixed	Research type
	Access to full text	Access to sources
Non-English	English	Language
	HRM + elderly	Subject field

Figure 1. Screening and resource selection process based on PRISMA flow diagram

Sixth step: quality control

In this phase, to validate the findings, a review strategy involving research colleagues was employed. During this stage, the research findings were subjected to review and amendments by the supervising professors, advisors, and five experts. Revisions and refinements were made to the extracted concepts and practices. This approach emphasizes the consensus of research colleagues in achieving credibility of the data (9).

Seventh step: presenting the findings of the meta-sythesis

Out of the total of 45 utilized sources, 236 practices were categorized into 11 dimensions of general HMR practices and 79 suggested practical practices. (Figure 2)

Consequently, based on this, the initial draft of the Delphi questionnaire was formulated. The classification criterion aligns with scholarly sources such as the books 'Human Resource Management' by Qolipour (10) and 'Foundations of Organization and Management' by Moghimi (11), and is corroborated by the approval of ten organizational and academic experts.

Out of a total of 1974 identified sources through the mentioned two keywords, along with 11 entries from "other sources," the total number of sources reached 1985. In the next step, 64 duplicate items were removed, leaving 1921 remaining. Upon reviewing the titles of the sources, 1476 sources were excluded due to their lack of relevance to the subject, resulting in a total of 445 items. After scrutinizing the content of the sources, 400 items were eliminated due to their inadequacy. Finally, a total of 45 sources, including qualitative articles and e-books, were utilized in the qualitative section and the formulation of the Delphi questionnaire.

The proposed practices from these sources, categorized into 11 dimensions of general HMR practices and 79 suggested practical practices, were classified and sent in the form of a Delphi questionnaire. (figure 3)

For two items—talent management and employee empowerment—no practical measure was identified. The first-round questionnaire, in the form of a five-point Likert scale, was provided to 28 experts, consisting of 15 organizational experts (public organizations in Jahrom County) through face-to-face interaction and electronic questionnaires to 13 academic experts nationwide holding a doctoral degree in management (specializing in HMR and organizational behavior).

Second phase: Delphi method

The first-round questionnaire, in the form of a five-point Likert scale, was administered to 28 experts. Specifically, it was delivered to 15 organizational experts through face-to-face interaction and an electronic questionnaire was submitted to 13 academic experts holding doctoral degrees in management, predominantly specializing in HRM and organizational behavior. The demographic characteristics of the experts are presented in Table 3. In this section, an examination of the demographic distribution of the sample is conducted in terms of variables such as gender, work experience, and educational level of the experts participating in the Delphi process. The panel consisted of 28 individuals, with 15 organizational experts composed of senior managers from 8 public organizations and 13 experts from various universities across the country. The organizational experts were selected from senior managers of publical organizations and the human resources department of the governor's office, the industry, mine and trade department, the office of registration of documents and real estates, the municipality, the Agricultural Jihad Organization, the office of economic affairs and finance, the natural resources department, and the science department, emphasizing their collaboration and participation in various stages of the Delphi process. The questionnaire items were in the form of a five-point Likert scale, ranging from very low equivalent to the number 1, to very high equivalent to the number 5.
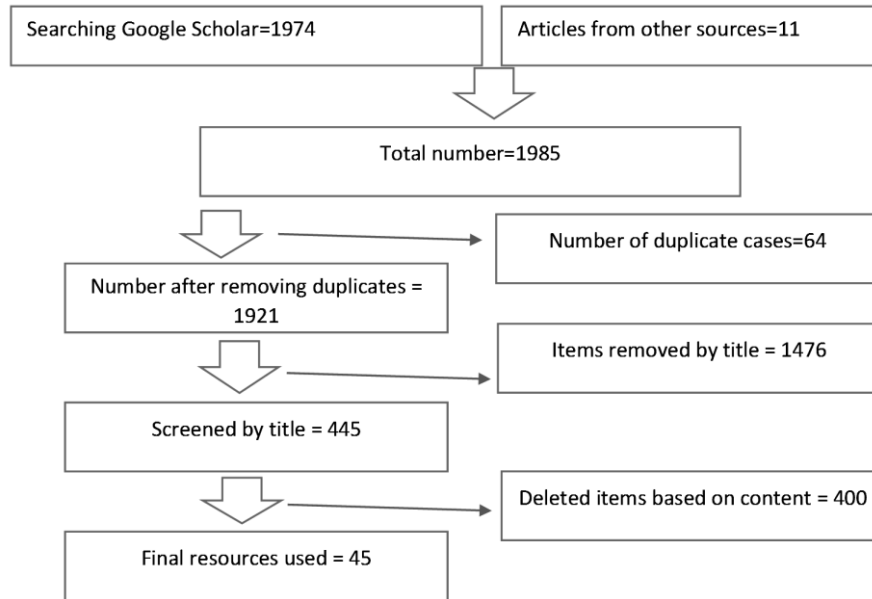
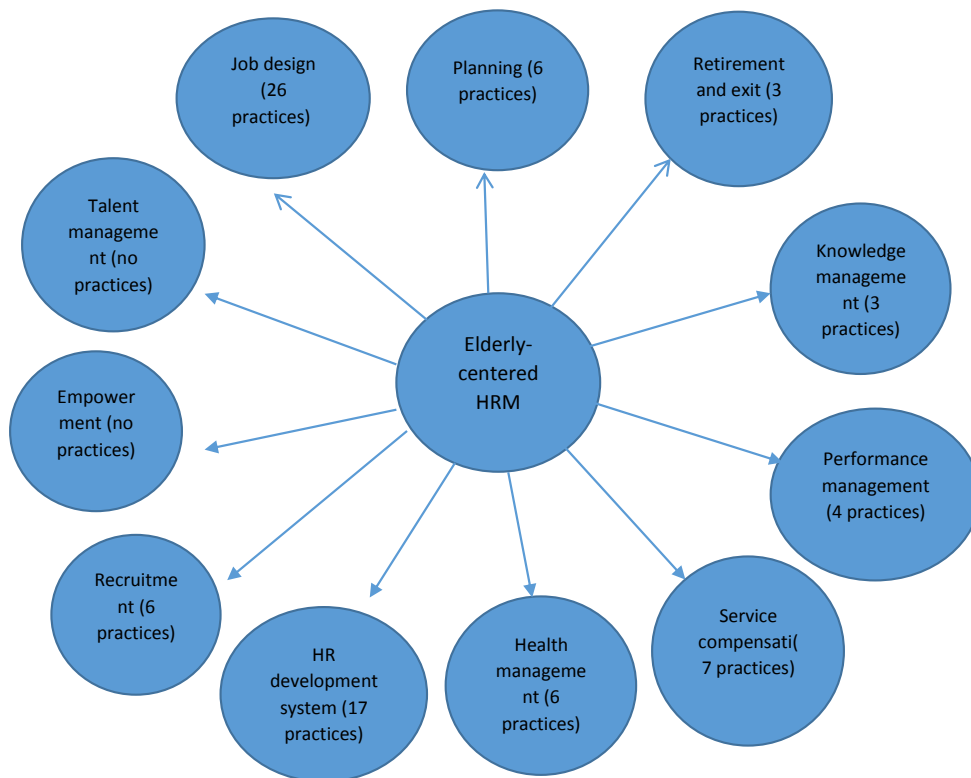**Figure 2. The process of meta-synthesis**

Figure 3. The output of meta-synthesis

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Table 6. The results of the third round of Delphi

Average	Description	Number
	planning (PL)	
3.5	Adopting a comprehensive approach of age management program for all members (opportunity to improve knowledge and skills, changing work roles at all ages for employees)	1
3.54	Taking practices for the benefit of elderly employees in terms of training and improving their work performance	2
3.38	Applying up-to-date policies for elderly employees (using up-to-date laws, policies and guidelines)	3
3.08	Eliminating age stereotypes for elderly employees through educational, advertising and media programs	4
3.5	Planning for future labor shortage preventive practices	5
	Work design (WD)	
3.35	Simultaneous attention to efficiency in the organization and the administrative requirements of elderly employees such as: recruitment, salaries, bonuses, etc.	6
3.38	Reducing work pressure for elderly employees	7
3.23	Improving working conditions for elderly employees	8
3.77	Communication and positive interaction of other employees with elderly employees	9
3.46	Transferring older workers to less stressful jobs	10
3.19	Authority and independence and participation of elderly employees in decision making	11
3.31	Being involved with work for older workers	12
3.35	The sense of usefulness, value and importance of elderly employees for the organization through: horizontal and vertical development (enrichment) of the job, job rotation, acquisition of job identity, internal and external transfer	13
3.35	Bringing work-life balance initiatives to older workers	14
3.35	Transferring older workers to jobs with less risk	15
3.19	Matching the job description and working conditions of elderly employees	16
3.27	Creating positive competition between elderly employees	17
3.35	Providing tools and equipment necessary for physical and mental health for elderly employees (height-adjustable chair, suitable mobility facilities in the work environment such as elevators, sufficient light in the environment, etc.)	18
3.31	Access to new technologies for elderly employees	19
3.35	Updated job description for senior staff	20
3.08	Practical possibilities for redesigning the appropriate work of elderly employees: an organization-based approach	21
3.27	Job regeneration (redesign): person-based approach (use of elderly employees in job redesign)	22
3.23	Flexible working hours for elderly employees	23
	Employment and hiring system (EH)	
3.08	Applying different job models for elderly employees (use in managerial position, consultant, coach, etc.)	24
3.15	Using elderly employees in the process of recruiting new employees	25
	Training and development system (TD)	
3.08	Continuous training of elderly employees	26
3.27	Individual development programs, training and development for elderly employees	27
3.23	Age management training for managers	28
3.38	Current job update training for elderly workers	29
3.19	E-learning for elderly workers	30
3.58	Promoting a collaborative culture	31
3.35	Informal learning (in-service training, peer learning) for older workers	32
3.08	Continuous (horizontal) career development for elderly employees	33
3.65	Mentor-mentee relationships and coaching (training of other employees through elderly employees in the roles of advisor, coach, etc.)	34
3.38	Missions and experiences (acquiring positive experiences inside and outside the organization for elderly employees)	35

3.69	Succession planning for elderly employees	36
	Health, wellness and safety (health management)(HM)	
3.65	Promoting (patterns) of healthy life for elderly employees	37
3.54	Preventive medical screening of elderly employees	38
3.58	Fitness and health facilities in the workplace of elderly employees (access to the gym and fitness facilities)	39
3.08	Reimbursement of membership fees in sports clubs outside the workplace for elderly employees	40
3.5	Organizing and holding sports activities (football team, volleyball, etc.) for elderly employees	41
3.19	Healthy nutrition training for elderly employees	42
3.42	Identification and prevention of workplace risk for elderly workers	43
	compensation system (CS)	
3.23	Fair rewards and compensation (based on organizational results) and commensurate with age for elderly employees	44
3.35	Supporting elderly employees in the face of age-related injuries	45
3.23	Increasing the income of elderly employees without reducing the benefits of the insurance fund	46
3.19	Job security (security) for elderly employees	47
3.12	Celebrating the best ideas from elderly staff	48
3.12	Challenging or meaningful job for elderly employees	49
3.12	Highlighting the successes and achievements of elderly employees	50
	Performance management (PM)	
3.54	Highlighting the successes and achievements of elderly employees	51
3.27	Performance management based on objective and measurable results of elderly employees	52
3.42	Helpful feedback to elderly employees	53
3.38	Applying various feedback systems (360 degree feedback etc.) for elderly employees	54
	Knowledge management (KM)	
3.42	Performing tasks in a group with age diversity among employees	55
3.69	Knowledge transfer (the role of elderly employees as consultants, tutoring, guides, coaches, etc.)	56
3.38	Inviting retirees on occasions to attend, speak and transfer the knowledge and experiences of elderly employees	57
3.54	Sharing information and experiences	58
	Retirement and exit service (RE)	
3.46	Exit plans and retirement plans for elderly employees (retirement: phased, phased, part-time, gradual, etc.)	59
3.35	Increasing the retirement benefits of elderly employees	60

Discussion

As the most crucial measure of HRM is planning, there is a necessity for planning and coordination at the legislative, administrative, and hiring levels. It is imperative that all of these practices be concurrently and synchronously planned and executed. Subsequently, we proceed to delineate these proposed practices.

Retirement and exit

One of the significant issues pertains to retirement and exit. Examination of various organizations has shown that only one form of retirement is implemented in our country, where employees are retired upon reaching a specific duration of service. Various sources have referenced different forms of retirement: phased retirement (13,14), post-retirement incentive schemes (13), or semi-retirement programs (15), involving the reduction of working hours or working days for elderly employees approaching retirement, which can be utilized.

Planning

The primary duty of HRM is planning. In light of the results from the third round of the Delphi technique, experts emphasized the adoption of practices benefiting elderly employees in terms of training and skill enhancement (1). The organization is expected to take action in the direction of educating employees in new and updated technologies through various methods such as online education, in-service courses, and the like.

Job design

In this regard, flexible working arrangements have been suggested, including reducing the number of working days during the week (13), telecommuting for elderly employees (16), and reducing overtime work for elderly employees (17). On the other hand, discussions regarding

ergonomics and working conditions, such as height-adjustable chairs, improved mobility facilities in the workplace such as elevators, adequate lighting in the environment, or quality electronic equipment (monitors) to reduce eye strain for employees, have been proposed and approved by experts.

Knowledge management

One of the crucial topics is the preservation and transfer of knowledge and experiences of elderly employees to new workforce as consultants, guides, and mentors (15),(17-19), which was highly endorsed by the Delphi experts. It is suggested that elderly employees, upon reaching retirement age, be utilized while considering reduced working hours. Furthermore, retired employees could be engaged through temporary work contracts in this capacity.

Performance management

One of the stereotypes associated with elderly employees, their supposedly weaker performance compared to younger employees, was refuted based on the research by Ng and Feldman (20). Elderly employees, due to their extensive organizational experience and familiarity with different organizational sectors and processes, exhibit a high level of performance, as confirmed by Delphi experts.

Recruitment system

Elderly employees can be utilized in the hiring process of new personnel, conducting job interviews and aligning job and employee conditions. This measure has been highly endorsed by Delphi experts. Due to their extensive experience in understanding organizational processes, various departmental responsibilities, job characteristics, and training new personnel, elderly employees fulfill a fundamental role.

The primary aim of the conducted research has been the job exit of elderly individuals, while HMR practices aimed at encouraging active aging have been less discussed as inhibiting factors. Some initiatives address the elimination of age stereotypes associated with elderly employees. The US Age Discrimination in Employment Act (ADEA) prohibits age discrimination in employment for individuals over the age of 40 in organizations with over 15 employed workers (5).

The selection, performance appraisal, training decisions, and job planning are examples of human resource practices that age discrimination may impact (21). However, in practice, it is difficult to discern evidence of age discrimination, as it is often covert and indirect (2005). The study by Buyens et al., (22) indirectly supported the proposition that a negative perception of elderly employees predisposes influence on the effectiveness of the elderly employees. Recent studies indicate that the gender aspect of this issue has been overlooked and supports the concept necessary for a more detailed examination of the relationship between ageism and gender (23).

The current study is considered an extension of previous research by comprehensively collecting proposed practices from previous research and providing three new proposals, with input from Delphi experts.

Recommendations

One of the age stereotypes regarding elderly employees is their lesser inclination to participate in social programs (20). The experts recommend increased participation of elderly employees through the establishment of intergenerational competitions and team-based task completion involving a diverse age group. This involves inviting the elderly and retirees to ceremonies and transferring their knowledge and experiences through the training of new workforce, leading to a workplace environment characterized by intimacy, higher performance, increased participation, healthy work styles, ultimately resulting in the preservation and transmission of the knowledge and experiences of elderly employees to other members, as well as the implementation of succession planning.

Among the recommendations of the experts in the field of ergonomics and improvement of working conditions, the possibility of providing better mobility facilities in the workplace, such as elevators or escalators for (elderly) employees, is mentioned. Additionally, the experts (employees) raised objections to the quality of the organization's monitors, which had led to ocular diseases. It is suggested that appropriate practices be taken to improve these issues.

Another aspect involves boosting motivation and job satisfaction by standardizing the rights and remuneration of all departments, which can lead to dissatisfaction, discrimination, lower performance, or attrition from the organization. Clearly, the formulation of up-to-date job descriptions and necessary financial and moral support appear essential.

In the area of training the elderly workforce, it is recommended to conduct effective training courses that are not merely certificate-oriented. Moreover, the impact of training programs and their incorporation in the organization should be assessed.

Another manifestation of age-related stereotypes impacting elderly employees is a lower work performance, which can be addressed through the implementation of continuous assessment programs and reporting their results to the management. Introducing and encouraging elderly employees is a means to mitigate this issue.

By designing up-to-date job roles and allocating budget for workplace safety and health (ergonomics), efforts can be made towards preventing and reducing physical injuries among employees in using workplace tools. Numerous complaints from employees about the presence of substandard monitors were reported, leading to

ocular diseases due to continuous work. The organization did not provide support, nor did it adopt a more flexible work plan.

Conclusion

Individually, the implementation of age and elderly management plans is significant as planning for a specific age and considering a particular age range alone will not be effective. It needs to be approached as a continuous process of planning and executing the model. Motivational support, financial incentives, and the provision of healthcare services are effective practices throughout the employees' organizational lifespan. Implementing the proposed practices through organizational experts, human resource managers, and the involvement of elderly employees in executing practical actions will lead to optimal implementation.

Employees will become old and leave organizations. Statistics of elderly employees in organizations were not provided, and sufficient cooperation in this area was not carried out. Therefore, workforce shortage prevention programs, reliant on assessing the current situation and aligning it with organizational goals, will be disrupted. Furthermore, policymaking and the implementation of proposed practices for preservation and maintenance, retirement, financial and motivational support during and after exiting employment, will not be effectively executed, leading to employee dissatisfaction and premature departure from the organization. Considering human resources as the most valuable asset of an organization, and given the role of elderly employees, practices and arrangements must be taken to leverage the talents, knowledge, and organizational experiences of this group and minimize their work-related challenges. We hope this article will be instrumental in identifying organizational practices in this area and in developing better organizational plans, policies, and suggestions aimed at addressing the needs of elderly workers.

Study limitations

The specialization of the questionnaire, the attitude of Delphi experts to the questions, lack of direct access to academic experts, sending the questionnaire online, limitations in two-way communication, and slow or interrupted internet speed caused the slowness of the implementation process.

The busyness of the employees and the prolongation of the Delphi rounds (3 rounds) caused a decrease in accuracy in answering or the non-cooperation of some respondents.

Imposing quarantine during the Corona pandemic at the same time as forming a Delphi panel, along with the process of obtaining permission to distribute questionnaires in public organizations, was one of the limitations of this research.

Conflict of interests

According to the authors' statement in this article, there is no conflict of interest.

Authors' contributions

All authors have contributed to the design, execution, and writing of all parts of the present research.

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