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A COMPARATIVE STUDY OF WORK ABILITY INDEX ACROSS DIFFERENT AGE GROUPS AMONG ACADEMIC FEMALE STAFF

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Abstract: The present study aimed to compare the Work Ability Index (WAI) among academic female staff across different age groups—young, middle-aged, and senior in polytechnic colleges Bhopal. Work ability is a crucial determinant of productivity and occupational well-being, especially in academic settings where mental and physical demands coexist. A total of ninety (N=90) academic female staff members were selected using purposive sampling, with 30 participants in each age group. The Work Ability Index questionnaire was used to assess work ability. Statistical techniques such as mean, standard deviation, and one-way ANOVA were employed to analyze the data. The findings revealed significant differences in WAI among the three age groups, indicating a decline in work ability with increasing age. The study highlights the need for age-specific interventions to maintain and improve work ability among academic female professionals.

Index Terms - Work Ability Index, Academic Female Staff, Age Groups, Occupational Health, Physical Activity.

1. Introduction

In contemporary learning center the job of education has grown to be much more complicated and highly demanding. This occupation not only focuses upon teaching on learning rather it also includes research managerial function student guiding syllabus development and continuing career advancement. These multi-dimensional duties demand for encouraging brain work, mental stability and toughness. For such sustaining a standard level of work performance with passing time has become a major criterion to worry especially in the tertiary education areas which the difference the idea of work every day in that has popularized as a scientific and practical instrument to monitor a person capacity to act for their role efficiency to the requirement of the work medical condition and cognitive capacity

The Work Ability Index, which was density formed by the Finnish institution of occupational health give out a systematic plan on the workers do their duties keeping in mind both the physical and mental criteria. Combine various elements like present competence worker in comparison to the all-time best requirement of the work illness identification approximates occupationally dysfunction, medical leave cognitive resources and capacity Outlook. Aditi index has become a and important pointer in professional health research, particularly in occupation such as teaching in which cognitive demand has equivalent an importance to the physical effect. All this becomes a multifaceted characteristic of work ability index. High level of working capacity is necessary for teaching staff not just for their individual productiveness rather for having standard in education and other organizational performance Female teaching staff from a major part of the academic human resources has provided remarkable toward the teaching research and scholarly administration. Usually, they come across many distinctive unstable that affect their working capacity. In most of the socio-cultural aspects, like India female are generally to take both professional duties along with the household choices like taking care of a child's, house making and caring for their other family members. Double load of work contributes highly toward growing pressure and lack of time for them, which is to turn influence both their physical fitness and mental health. With passing time such elements greatly decrease ABT to deal with the demand of the profession and hence affect their complete performance.

Other important element that criteria affect the working capacity of an individual is 8 with passing different stage of life and individuals show a major change in their physical and mental abilities. Individuals in their early age usually show a better fitness physically higher energy better adaptability and higher cognitive ability. Such elements affect positively towards their work performance. People at this age are usually having the flexibility to handle stress effectively and also manage the demanding schedule more smoothly. On the other hand in midlife a person starts experiencing slightly decrease in their physical fitness along with expansion in their occupational duties and individual devotion. This stage normally depicts and over balance between experience and increasing anxieties related to health.

In old age major changes happen because of this age. This change compared to decrease in physical fitness moderate fatigue recovery and increasing change of long-standing help related issues. Mental elements like memory and cognitive speed also decline despite experience and expertise at this age usually reimbursed for this reduction. Also with this obstacles, senior teaching staff also contribute for PCs to acknowledge expertise and leadership ability at their works. Still the combine effect of aging and continuous exposure on job Italy contribute toward they are deduction in their capacity to work if not assisted proper interference from workplace.

Hence it is important to understand now the working capacity of an individual difference with different age of life among the female teaching. Sach comprehension main proof to be helpful in recognizing the demand and hurdle that individuals come across different age. This also enables the growth of selected strategy to improve work ability. For example, the staff at an early age may be profited career advancement opportunity and tax management on the other hand staff at their mid age need assistant for work balance and for domestic duties. While senior staff may get edit to adoptable working system health related scheme, and biotechnology interference to decrease physical exertions.

Father more evolution to work ability at different stage of life has an significant inference for organizationally policy and mass power planning such for perception kindly used by academic institutions to develop a friendly working environment comma encourage employee welfare and improve performance. This in general in related with present age where an increase in life expectancy and related vitamins have resulted in more mixed age man power in the organization. This intern makes sure that the employees remain fit motivate and perform effectively in their whole work life which is very significant for sustainable growth of the organization.

The rich man for physical training and healthy to leave practices are important elements for nourishing work ability at various stages of life. Continuous exercise administrative approach and proper raised contributes majorly towards the enhancement of both physical and psychological help, hence improving complete work performance. To have a better work ability across all time for the female teaching staff at the academic organization aids such as fitness program, therapy and work life balance initiatives play a very significant role in general.

Hence this study focuses upon the inspection and comparison of work ability index in young, mid age and senior female staff from academics. On recognition of variation and other these age group this study aims to provide for the existing knowledge body in professional health and gives an functional advice for enhancing work ability in educational environment.

2. Methodology

2.1 Research Design

Descriptive and comparative research design was adopted.

2.2 Sample

- Total Sample: 90 academic female staff
- Sampling Technique: Purposive sampling
- Group Division:
 - i. Young (25–35 years): 30 participants
 - ii. Middle-aged (36–50 years): 30 participants
 - iii. Senior (51–60 years): 30 participants

2.3 Tool Used

- Work Ability Index (WAI) Questionnaire

2.4 Statistical Techniques

- Mean
- Standard Deviation
- One-Way ANOVA
- Level of Significance: 0.05

3. Results and Discussion

Table 1: Mean and Standard Deviation of WAI Scores

Age Group	Mean	SD
Young	42.5	3.2
Middle-aged	38.7	3.8
Senior	34.9	4.1

The table indicates that the young group has the highest mean WAI score, followed by the middle-aged group, while the senior group shows the lowest work ability.

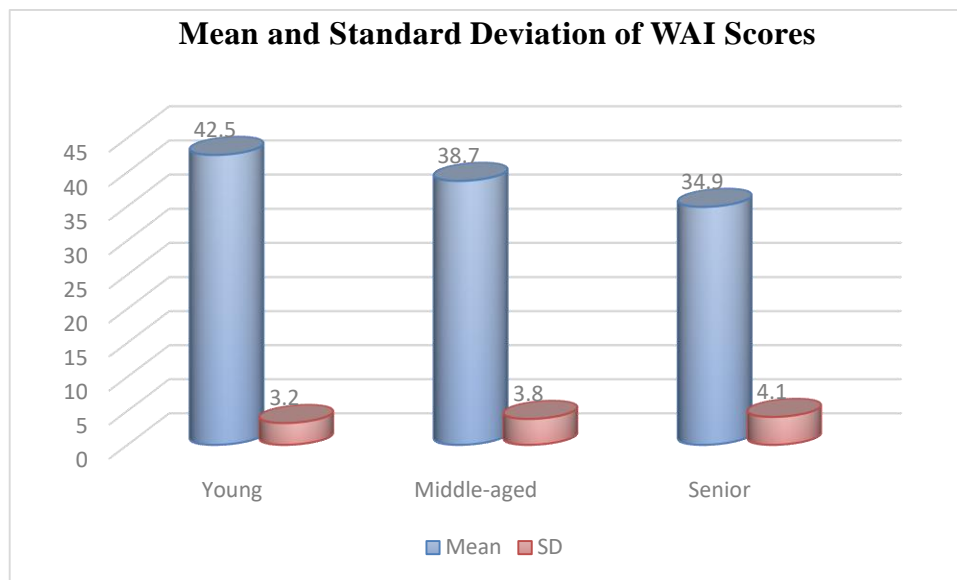


Table 2: One-Way ANOVA of WAI Scores

Source of Variance	SS	df	MS	F
Between Groups	420	2	210	12.85
Within Groups	1425	87	16.37	

The calculated F-value (12.85) is greater than the critical value at 0.05 level of significance, indicating a significant difference among the groups.

Discussion

The findings of the study reveal a significant decline in Work Ability Index with increasing age. Young academic female staff demonstrated higher work ability due to better physical health, energy levels, and adaptability. Middle-aged staff showed moderate work ability, possibly influenced by increased professional and personal responsibilities. Senior staff exhibited lower WAI scores, which may be attributed to age-related physiological decline and increased health issues.

These results are consistent with previous research indicating that work ability decreases with age due to reduced physical capacity and increased occupational strain. The study emphasizes the importance of implementing health promotion programs, ergonomic interventions, and flexible work policies to support aging academic staff.

4. Conclusion

The study concludes that there is a significant difference in Work Ability Index among young, middle-aged, and senior academic female staff. Work ability tends to decline with age, highlighting the need for targeted interventions to maintain productivity and well-being among older employees. Institutions should adopt supportive measures such as wellness programs, workload management, and physical activity promotion to enhance work ability across all age groups.

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