

Impact of Exercise Benefits on Achievement-Enhancing HR Bundles: Role of Health Beliefs, Smoking Cessation and Smoking Urges

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Abstract

Purpose: This study investigates the interplay between exercise benefits, health beliefs, smoking cessation, and smoking urges in shaping achievement-enhancing HR bundles within organizational settings. Conducted in the Kingdom of Saudi Arabia, the research aims to provide insights into how health-focused behaviors influence HR strategies designed to optimize employee performance. **Method:** The study employed a quantitative approach, surveying 221 employees from various firms. Validated scales from prior research were used to measure key variables, including exercise benefits, health beliefs, smoking cessation, smoking urges, and achievement-enhancing HR bundles. Data were analyzed using Structural Equation Modeling (SEM) in Stata, enabling simultaneous testing of direct, mediating, and moderating relationships. **Findings:** The results reveal that exercise benefits and health beliefs significantly enhance achievement-oriented HR strategies. Health beliefs mediate the relationship between exercise benefits and HR bundles, highlighting their cognitive role in translating physical health into workplace performance. Smoking cessation positively moderates this relationship, amplifying exercise benefits, while smoking urges negatively moderate the outcomes. These findings underscore the importance of integrating comprehensive wellness programs into HR frameworks to foster organizational success. **Originality/Implications:** This research offers a novel framework linking health behaviors with HR strategies, emphasizing the interdependence of physical and cognitive factors. Its implications guide organizations in designing holistic wellness initiatives to achieve sustained employee performance and organizational excellence.

Keywords: Exercise Benefit, Life Enhancement, Physical Performance, Health Belief, Smoking Cessation, Smoking Urge, Achievement Enhancing HR Bundles.

INTRODUCTION

There is a great deal of attention paid to workplace health and its relationship to human resource (HR) practices in modern literature, largely because it indicates how employee well-being impacts organizational performance.

[1] Health behaviors, like exercise, smoking cessation, or belief in healthy living, are essential to productivity and job satisfaction profiles.[2] These behaviors have also been found to result in a motivated and efficient workforce if encouraged and supported by HR initiatives.[2] To attain such results, health-related interventions should be integrated into achievement-enhancing HR bundles focused on the best realization of employees' potential through structured training, performance incentives, and wellness programs.[2] Among exercise benefits, improvements both in physical health and cognitive function are particularly important for workplace wellness.

[3] Regular exercise not only increases energy and stamina but helps to reduce stress, thereby creating an easier atmosphere to reach the goals set in the organization.

[4] Another cornerstone of workplace health strategies is smoking cessation, which reduces costs in healthcare services and increases long-term productivity and efficiency of employees.[5] Simultaneously, health beliefs, as moulded by individual perception of vulnerability to diseases and the advantages of health-promoting actions, offer a cognitive framework that guides behaviors like taking part in wellness initiatives.[6] While areas of extensive research exist in these themes, there is still inadequate information on how the elements combine

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within the purview of achievement-strategy HR practices.^[7] Considerable empirical evidence has established that exercise plays a particularly important function in augmenting workplace outcomes.

Studies have always revealed that frequent physical exercise can result in physical health benefits as well as cognitive and psychological capacities important to performance in the workplace.^[8] In fact, employees exercising regularly typically present improvements in concentration, strength, and teamwork capabilities centered on achievement-oriented HR bundles.^[9] These findings are complemented by research on workplace wellness programs, which reflect a positive correlation between structured physical activity and worker productivity.^[10] Further, exercise aids to lower stress levels and helps one enhance his mood through the release of endorphins, further strengthening its role in creating a high-performance workforce.^[11] Health beliefs also play a serious role in workplace behaviors and their outcomes. Studies by Ziedonis *et al.*^[12] have shown that employees with a solid health belief are more likely to engage in wellness programs and preventive health measures. The workers, who will be perceived as more stress-free, healthier, and high engagement in achievement-enhancing HR initiatives, tend to display higher output levels.

^[13] Health beliefs are deeply influenced by individual perceptions of susceptibility to health risks and benefits of mitigating them; thus, it is a critical target in workplace intervention.^[14] Smoking cessation, like smoking, has been highlighted as a determinant of work-group productivity. Ghorai and Ray^[15] found that smokers who quit have had greater cognitive performance and less absenteeism. Furthermore, smoking cessation in the workplace is positively related to better team work and a healthier organization culture.^[16] These are more amplified with a benefit associated with exercise. Former smokers will have higher chances of keeping up with high levels of physical activities with compounded health and productivity improvements for them.^[17] However, smoking urges and irregular attendance remain the basic factors that prevent maximum reaping of these advantages. Thus, despite all these progressions, there exists a lacuna in realizing how these factors interplay at the organizational level in achievement-oriented HR strategies.^[18] Although separate studies were conducted on exercise, health beliefs, and smoking cessation at individual levels, but their collective impact has not received maximum clarification regarding HR practices and performance levels at work.^[19] This article aims to fill this gap by evaluating these relationships through an integrated framework. Although substantial research has already been conducted on exercise benefits, health beliefs, and smoking cessation, a couple of gaps still exist that don't allow for a comprehensive understanding of the interaction between these at work practices.^[20]

First, most of the present literature focuses on individual effects rather than combined or interactive impact.

^[21] For example, whereas regular exercise has been

associated with better cognitive and physical abilities, most studies do not investigate how these benefits tend to feed through into organizational-level outcomes in HR bundles.^[22] Typically, health belief research focuses on the extent to which beliefs about health influence individual behaviors, without relating them to related HR strategies or workplace performance metrics. Smoking cessation research also suffers important limitations.^[23] Despite the voluminous literature on the physiological and cognitive importance of smoking cessation, the persistent challenge of smoking urges and their effect on workplace outcomes has been understudied.^[24] Besides, there is limited empirical evidence on the interaction of smoking cessation with other health-promoting behaviors such as exercise that may affect HR initiatives intended to enhance achievement.^[25] Most of the studies in this area have adopted a siloed approach, failing to capitalize on the potential of investigating how such factors interplay and influence workplace dynamics.^[26] In addition, the mediating role of health beliefs in most of these relations has been almost entirely neglected.

While health beliefs are recognized as critical motivators for behavior change, few studies explore their influence on the effectiveness of HR strategies that integrate exercise and smoking cessation.^[27] This gap is particularly pronounced in organizational contexts, where health beliefs could potentially align employee behavior with achievement-oriented goals. Finally, research addressing smoking urges as a moderating factor remains scarce.^[28] Indeed, studies recognize the disruption caused by cravings to workplace performance, and there is a dearth of evidence on how organizations can counter it within the HR bundle structure that enhances achievement.^[2] Filling these gaps, this research tries to outline a holistic understanding of the intricate relationship between exercise benefits, health beliefs, smoking cessation, and HR strategies.^[1] This research is based on several theoretical frameworks, which explain the interrelations between exercise benefits, health beliefs, smoking cessation, and achievement-enhancing human resource bundles.

The foundational theory in this case is Health Belief Model (HBM), which posits that an individual's perceptions of health risks and benefits guide behavior change.^[2] Base on the HBM, employees with strong health beliefs would be more likely to participate in wellness programs, which is tantamount to the goal of HR practices that create a success-oriented environment.^[2] This theory helps ensure that health beliefs are a mediator in this research study. SCT adds to the knowledge about how the relationship between exercise and workplace outcome operates. SCT highlights the role of self-efficacy in driving behavior change, suggesting that employees who perceive themselves as capable of maintaining an exercise routine are more likely to experience its benefits.^[3] This aligns with the study's hypothesis that exercise benefits significantly influence achievement-enhancing HR bundles by improving cognitive and physical performance. This study was thus guided by

theoretical perspectives on smoking cessation, such as the Trans theoretical Model of Behavior Change (TTM). The stages of behavior change in TTM explain how quitting smoking interacts with other health-promoting behaviors.^[4] In supporting the hypothesis that smoking cessation moderates the relationship between exercise benefits and HR strategies, this endorses addressing both these factors together. The overall research objective is to integrate these theoretical perspectives within a coherent framework that examines the relationships among exercise benefits, health beliefs, smoking cessation, and achievement-enhancing HR bundles. In doing so, it will help address gaps that exist within the current research and contribute to the theoretical understating of the dynamics of workplace health and further add value to actionable insights being presented to HR practices.

LITERATURE REVIEW

The interaction between health beliefs and behavioral changes is a focus for the understanding of smoking abstinence.^[5] Health Belief Models (HBMs) suggest that the perception of susceptibility to smoking-related diseases plus the perceived severity of those risks significantly influences motivation to quit smoking.^[6] The benefits that result from cessation, such as a better physical condition, improved quality of life, and reduced medical costs, have been found to be important factors for reinforcing the smokers' intention when they find and believe in severe health consequences from smoking, such as the risk of lung cancer, cardiovascular diseases, and respiratory problems.^[7] However, barriers to this desire include abstinence anxiety, social support shortages, and pessimism regarding whether an individual is capable of not smoking.^[8] Research finds that targeted interventions that eliminate these barriers, for example, through counseling and nicotine replacement therapies, are effective at increasing participants' self-efficacy and aids in smoking cessation.^[9]

Social and cultural factors are richly interwoven with health beliefs and smoking patterns. The occupational environment and peer pressure act as inducers for smoking, mainly in those high-stressed occupations.^[10] Employees who work in smoke-friendly environments experience a normalized view of smoking. Such environments may function to undermine the cessation attempts.^[11] However, workplaces that offer smoke-free policies and cessation programs have proven effective in changing health beliefs about the benefits of quitting.^[12] Demographic factors include age, gender, and educational level-which cannot be avoided-from affecting a company's employees' responsiveness to cessation initiatives.^[13] Younger staff may feel that quitting is less hazardous compared with older employees, so specific interventions are necessary to reshape their beliefs.^[14] Educational communication about the short-term and long-term benefits of quitting, combined with workplace incentives, are effective ways to change health beliefs and support long-term behavioral change among different groups of employees.^[15]

Of utmost interest here is the role of exercise benefits in influencing workplace outcomes, especially in productivity and employee wellbeing.^[16] Research after research has, in fact portrayed findings in the sense that regular exercise improves physical health as well as enhances cognitive functions, energy levels, and work engagement generally.^[17] According to Criddle^[18], employees participating in workplace wellness programs that contained exercise-related components reported significantly higher job satisfaction and organizational commitment. Such findings are supported by the trend of research that suggests and highlights physiological exercise benefits, including cardiovascular health improvement and stress reduction, which a person can simply focus and operate better on tasks.^[19,20] In addition, exercise has been known to be linked to the release of endorphins, improving the mood and resilience that organizational objectives aim at. Organizational research has also indicated that health-focused initiatives, such as providing gym memberships or on-site fitness programs, create a wellness culture that promotes employees' adoption of healthy lifestyles. Such means are usually translated into better organizational outcomes, such as lower absenteeism and higher levels of performance.^[21] Empirical evidence from corporate health programs indicates that employees' exercise in the workplace is positively associated with their attainment of key performance indicators, which have a strong correspondence with achievement-enhancing HR practices. Quaye and Ameyibor^[22] suggest that regular exercising might even increase the alignment of HR strategies with broader organizational goals.

Bringing these findings to bear upon the hypothesis, the interplay between improved physical health and greater workplace efficiency clearly underpins the exercise benefits hypothesis in regard to how achievement-enhancing HR bundles are positively developed.^[26] Employees who exercise regularly often show enhanced cognitive functioning, stress management, and teamwork skills-all of them basic requirements for high-performing HR bundles in which achievement is the priority.^[23] Exercise benefits directly contribute to capabilities like goal-setting, resilience, and adaptability-all basic components of achievement-focused HR practices.^[24] Further, exercise initiatives connect personal wellness to organizational productivity, promoting a shared sense of mission in which individual goals are integrated with organizational benchmarks.^[25] This relation thus begets the very reason for well-designed exercise benefits as part of an HR bundle for achievement enhancement at the employee level.

H1: Exercise benefit significantly influences the achievement enhancing HR bundles.

Health beliefs, as conceptualized through models such as the Health Belief Model (HBM), are indeed factors that can influence work-related behaviors and outcomes.^[27] People who believe their health is of importance engage more fervently in practices that improve their health, a positive result on the job. Research conducted

by Bonneux *et al.*^[28] is an example of how the belief of workers towards health contributes more to having healthy health practices, thus increasing their productivity with less incidence of rising healthcare costs. Health beliefs on the willingness to commit to wellness programs at work usually underpin achievement-oriented HR programs.^[2] For instance, employees who are aware of the dangers of inactivity and poor diets are more likely to accept interventions to promote health and effectiveness at work.^[2] Research has also shown that having a good health belief can be positively related to managing stress and solving problems at work better. Employees aware of how their physical and mental well-being contributes to the effectiveness at work would be less likely to engage in behaviors causing conflicts at workplace and absenteeism.^[3] The alignment between individual health beliefs and organizational wellness goals has also been highlighted in research by Stone *et al.*^[5], which found that health-conscious employees contribute to a positive organizational culture that promotes high performance. Based on this evidence, it thus supports the hypothesis that health beliefs considerably contribute to achievement-enhancing HR bundles because of the key role that health awareness plays in changing the behavior and involvement of employees.^[7] Health beliefs operate as internal motivators, compelling people to engage in practices that resonate with the achievement goals of the organization.^[9] For example, employees who value health more highly are going to make use of these health-related services that human resources provides, such as stress management workshops or health screenings to ultimately increase productivity and reduce turnover.^[11] By institutionalizing health-oriented policies within the framework of HR organization, employees' health beliefs can be leveraged to create an achievement, innovation, and goal attainment environment.

H2: Health belief significantly influences the achievement enhancing HR bundles.

A recent area of focus in health psychology and HR research has been the mediating role of health beliefs regarding the relationship between exercise and workplace outcomes.^[13] Health beliefs act as a cognitive framework through which individuals translate the benefits of exercise into practical behaviors for the workplace.^[15] According to research by Chapman^[17], self-efficacy and perceived health control, which are among the core components of health beliefs, are boosted through a consistent engagement in physical exercises. Improved concentration, creativity, and productivity at work further result. Studies by Rehfeldt and Tyndall^[19] show that people who internalize the benefits of exercise will more likely show sustained participation in physical activities, further amplifying workplace advantages. Furthermore, such studies at the workplace have depicted that health beliefs escalate the perceived value of exercise-related HR initiatives. For instance, strong health beliefs among employees more likely see exercise as a tool in reducing stress and resilience at work.^[21] For

instance, research by West and Gould^[23] also shows that employees who believe in the preventive health benefits of exercise tend to appreciate and use HR programs that are geared towards achievement goals-like team building physical activities or reward wellness challenges.

The interplay between cognition and behavior forms the basis of the hypothesis that health beliefs mediate the relationship between the benefits of exercise and achievement-enhancing HR bundles.^[25] Whereas exercise provides the various physical benefits that enhance performance, health beliefs translate those benefits into sustained workplace practices.^[27] Consequently, such people are more likely to incorporate the behaviors relating to exercise into their daily lives, thereby reinforcing the success of HR programs.^[1] In addition, through health beliefs, there exists a motivational link between the physiological advantages of exercise and psychological readiness to meet the demands of an organization.^[2] This mediation emphasizes the designing of human resource policies not only providing exercise benefits but also health awareness for effective exertion.

H3: Health belief significantly mediates the relationship of exercise benefit and the achievement enhancing HR bundles. Smoking cessation has been recognized widely as contributing significantly to improved performance in the workplace and employee health.^[4] Research indicates that quitting smoking improves lung capacity, energy levels, and immunity to chronic diseases, hence impacting their productivity and job satisfaction. A study by Pan and Ryan^[6] revealed that there is a connection between smoke cessation and cognitive improvement that results in increased ability to focus and make good decisions without stress. These results support performance-driven, engagement-focused bundles of HR.^[8] Furthermore, the wellness programs in the workplace with smoking cessation, furthermore, play an important role in improving team dynamics and organizational culture. According to Arora and Goenka^[10], employees who quit smoking are less likely to have days off sick and are more likely to be involved in collaborative projects, indicating value to a performance-driven bundle of HR practices. Smoking cessation also has an indirect positive impact on exercise behavior, as former smokers are more likely to engage in physical activities-amplifying the effects of exercise benefits.^[12] These synergistic outcomes form a good platform from which to discuss smoking cessation as a moderating factor in workplace health initiatives. The hypothesis that smoking cessation moderates the relationship between exercise benefits and achievement-enhancing HR bundles stems from the interaction between the improvements in physical health and behavioral shifts.^[14] Employees who quit smoking and engage in exercise are likely to experience compounded benefits, including increased stamina and psychological resilience.^[16] Smoking cessation reduces physiological barriers such as the limitation placed on exercise capabilities by respiratory deficits that otherwise may limit exercise participation,

thus amplifying the positive effects of exercise on work performance.^[18] Integrating smoking cessation programs within HR strategies can build support for the workforce because the combined impact of quitting smoking and exercise exercises achievement-focused outcomes.^[20] This moderation effect implies that the strategic importance of HR frameworks addresses smoking cessation along with benefits from exercise.

H4: Smoking cessation significantly moderates the relationship of exercise benefit and the achievement enhancing HR bundles.

Of late, the impact of smoking urges on work performance and health behaviors has been a subject of great concern.^[22] Smoking urges are characterized by cravings and withdrawal symptoms; they are known to disrupt concentration and reduce productivity and participation in health-promoting activities, like exercise.^[24] The research of Hoo *et al.*^[26] indicates that the level of smoking urges appreciably impairs cognitive performance and stress management and do causes difficulties for employees seeking to balance work and health goals. Smoking urges frequently result in higher absenteeism, presenteeism, and workplace conflicts, which dilutes the utility of HR strategies intended to support achievement-oriented behaviors.^[28] Other research has also assessed the potential rehabilitative effects of exercise on smoking cravings: It seems that exercise is found as an episodic diversion and a means of mitigating craving in response to smoking urges. Results by Frates *et al.*^[2] indicate that withdrawal symptom severity can be

dramatically reduced with moderate exercise, while mood is improved along with overall capability to resist smoking urges. However, the persistence of smoking urges in certain individuals can undermine these benefits, highlighting the importance of addressing such urges within workplace wellness programs.^[2]

The hypothesis that smoking urges considerably moderate the relationship between exercise benefits and achievement-enhancing HR bundles is built on the disruptive impact of cravings on health and work behaviors.^[5] While exercise offers substantial benefits, there is always a possibility that the strength of smoking urges may impair its ability in shaping productivity and achievement within the workplace.^[8] Such employees might not be able to maintain their exercise programs or maximum benefit from them, and thereby not be able to contribute much toward achievement-oriented HRM practices.^[11] Smoking cravings can be addressed through focused interventions of counseling or nicotine replacement therapies.^[14] The organizations can then design their HR strategies to meet the needs of their employees, in particular accounting for smoking urges so that the exercise benefits are optimized, and thus attaining a resilient and high-performing workforce.^[17] The moderation effect highlights the importance of an integrated employee health approach in addressing the exercise benefits as well as handling the barriers posed by smoking urges.

H5: Smoking urge significantly moderates the relationship of exercise benefit and the achievement enhancing HR bundles.

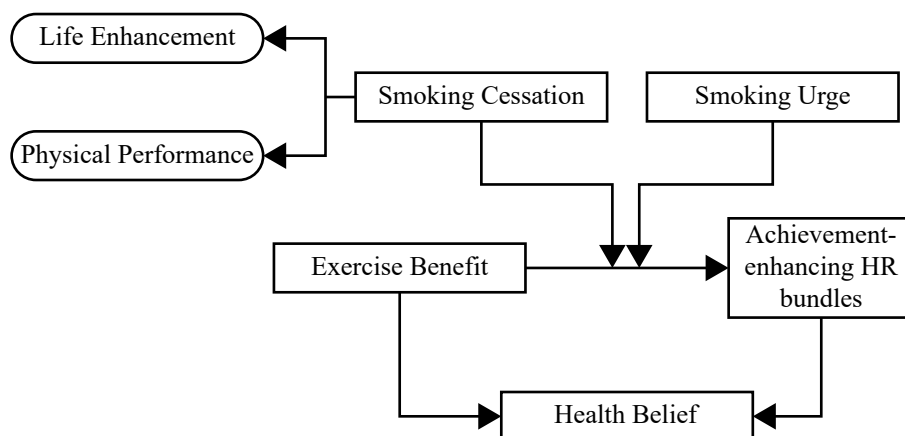


Figure 1: Conceptual Model.

METHODOLOGY

Research Design

The current study employs a quantitative research design to explore the relationships among exercise benefits, health beliefs, smoking cessation, smoking urges, and achievement-enhancing HR bundles. The study was set in the context of the Kingdom of Saudi Arabia, taking advantage of the distinct organizational and cultural contexts of that region. The focus was to analyze the interaction between individual health behaviors and HR

strategies as a way to optimize employee performance in various workplace contexts. The research framework conducts multiple theoretical perspectives that assess direct, mediating, and moderating relationships among key variables.

Sample and Data Collection

221 employees working in various firms operating in the Kingdom of Saudi Arabia were part of the sample drawn through the use of the purposive sampling technique to ensure diverse industry representation, job roles, and size

of firms. Survey participants were chosen from firms with formal HR practices and wellness initiatives. This means that participants were relevant to the objectives of the study. Data collection was through an electronically and manually distributed structured survey. The response rate was 84% and indicated strong participant engagement. Demographic information, including age, sex, education, and length of service, was gathered to complete a participant profile. The sample drawn represented both managerial and non-managerial position levels, therefore improving the generalizability of findings. The question design was user-friendly to prevent ambiguity in the interpretation of items, reduce response bias to a minimum.

Measurement of Variables

The study variables were operationalized using validated scales adopted from previous studies to ensure reliability and validity.

- **Exercise Benefit:** Measured using subscales for Life Enhancement and Physical Performance, reflecting both cognitive and physiological aspects of exercise benefits. **Smoking Cessation:** Evaluated through items reflecting smoking behavior changes and cessation success.
- **Smoking Urge:** Measured using a scale capturing the intensity and frequency of cravings.
- **Achievement-Enhancing HR Bundles:** Assessed using items focusing on HR strategies aimed at maximizing employee performance, such as training, wellness programs, and goal alignment.
- **Health Belief:** The health belief variable was operationalized through a structured questionnaire to capture employees' perceptions about the importance and impact of health-focused behaviors, in particular in the workplace productivity and well-being domain. Guidelines followed in constructing this questionnaire were based on the Health Belief Model, outlining dimensions that are argued to be relevant: perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. To ensure scientific rigor, six items were designed from validated scales and adapted from previous relevant research studies in the workplace health domain. Each item was tailored to reflect the context of the study and focused on the attitude and perception that employees held regarding health beliefs and their relevance to benefits in exercise and/or workplace performance. The items were to measure the cognitive and motivational dimensions of health beliefs, including the perceived need to exercise, awareness of potential health risks, and the confidence that positive behaviors can impact professional success. The survey instrument was pretested using a pilot group of 30 employees to check for clarity, relevance, and reliability of the items. Slightly phrased minor changes were made based on feedback from the pilot test to make the item culturally and contextually appropriate.

A Likert scale of 5 was used for each question so that the full spectrum of different levels of agreement would be encompassed for the respondents' understanding of their health belief. Cronbach's Alpha and Confirmatory Factor Analysis were used subsequently to establish the overall reliability and construct validity of this variable within the study.

Each construct was measured on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." The scales were rigorously pretested for linguistic and cultural appropriateness to ensure relevance in the Saudi Arabian context.

Table 1: Summary of Scales.

Variable	No of Items	Taken from
Exercise benefit	Sixteen	Kgokong and Parker ^[29]
1. Life enhancement sub-scale	1. Eight	
2. Physical performance sub-scale	2. Eight	
Health belief	Six	Developed for this research
Smoking cessation	Four	Mallin ^[30]
Smoking urge	Twelve	Dethier <i>et al.</i> ^[31]
Achievement enhancing HR bundles	Five	Yim <i>et al.</i> ^[32]

Data Analysis

The collected data were analyzed using Structural Equation Modeling (SEM) in Stata. SEM was selected for its ability to simultaneously test complex relationships, including direct, mediating, and moderating effects. The analysis proceeded in two stages:

1. **Measurement Model:** Confirmatory Factor Analysis (CFA) was performed to assess the reliability and validity of the measurement scales. Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) were calculated to ensure internal consistency and convergent validity.
2. **Structural Model:** The hypothesized relationships among the variables were tested. Path coefficients, standard errors, and significance levels were analyzed to validate the direct effects (H1, H2), mediation (H3), and moderation (H4, H5). Model fit indices, including the Standardized Root Mean Square Residual (SRMR) and chi-square statistics, were evaluated to ensure a well-fitting model.

The results of the analysis provide robust insights into the hypothesized relationships, which support the importance of the factors under study in shaping the achievement-enhancing HR bundles. Such a methodological approach ensures the rigor and reliability of the findings, thus providing valuable insights into the dynamics of workplace health and performance within the context of Saudi Arabia.

RESULTS

Table 2 thus shows the psychometric properties of the measured variables in terms of reliability and validity. Internal consistency, as measured by Cronbach's Alpha, is higher than 0.70 for all variables and ranged between 0.725 for Physical Performance and 0.865 for Health

Belief. These values explain that the constructs were made consistently measured by their items. Composite Reliability (CR), which goes beyond the minimum threshold of 0.70 for all constructs, suggests that high

levels of composite reliability exist as results are 0.868 for Smoking Cessation and 0.819 for Achievement-Enhancing HR Bundles.

Table 2: Variables Reliability and Validity.

Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Exercise benefit	0.741	0.813	0.519
Life enhancement	0.787	0.751	0.517
Physical performance	0.725	0.777	0.575
Health belief	0.865	0.808	0.544
Smoking cessation	0.800	0.868	0.526
Smoking urge	0.828	0.857	0.569
Achievement enhancing HR bundles	0.770	0.819	0.560

Average Variance Extracted (AVE) measures the convergent validity of constructs representing the amount of variance captured by a construct relative to the variance due to measurement error. All AVE values are above the threshold of 0.50, with Smoking Urge having a high AVE at 0.569 and Exercise Benefit showing an AVE of 0.519.

Results suggest that all variables explain more than half of their variance, hence ensuring convergent validity. High values across Cronbach's Alpha, Composite Reliability, and AVE can imply that all variables are reliable and valid for subsequent analysis.

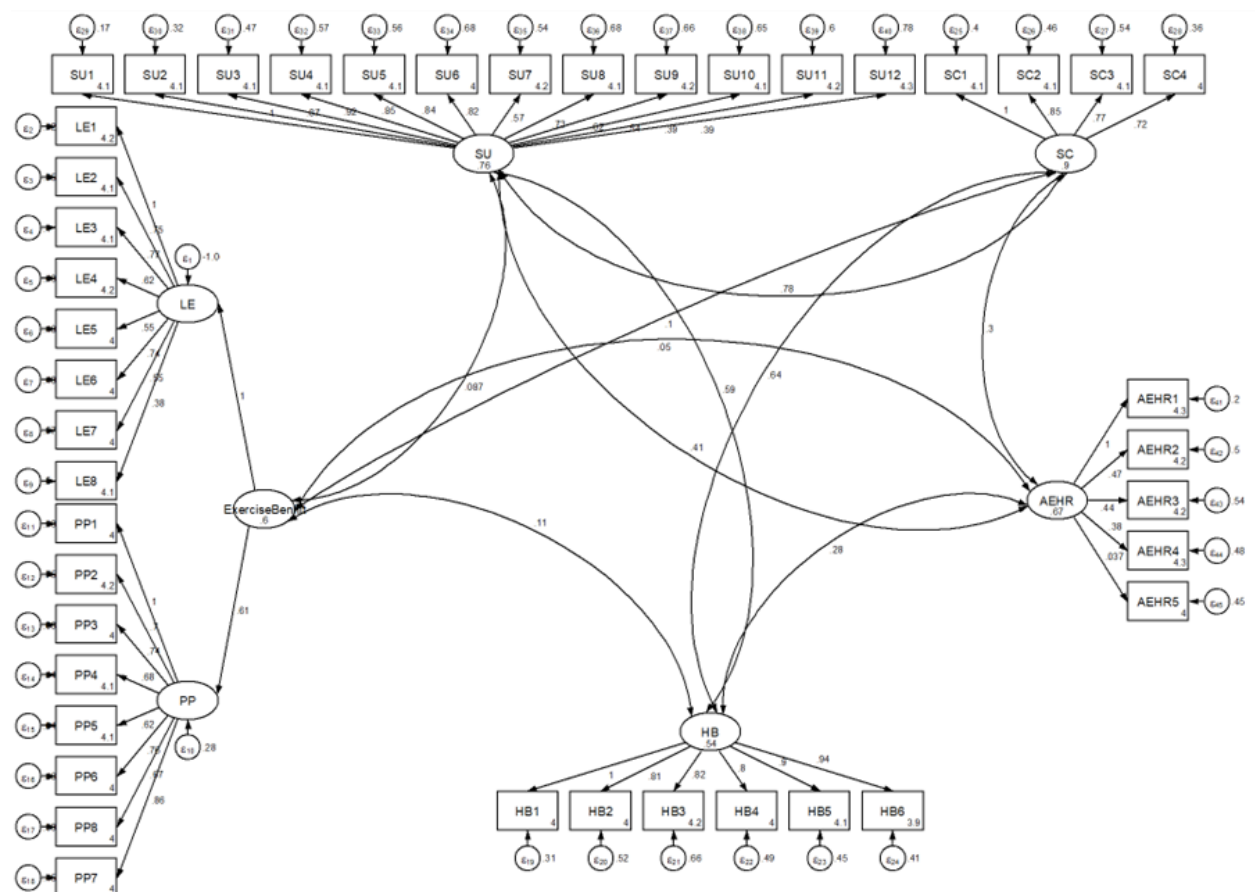


Figure 2: Estimated Model.

Table 3 presents the results of Confirmatory Factor Analysis which confirms the validity of measurement models of various constructs. Significant z-values for all indicators indicate a strong association of each indicator with a latent variable. For example, the factor loadings of

the LE indicators ranged from 0.314 to 0.742, while all p-values were less than 0.001, which indicates reliable representation of the construct. Similarly, for Physical Performance (PP), factor loadings like PP6 (0.876) and PP7 (0.799) are significant with narrow confidence intervals,

which means measures are robust. For the Health Belief (HB) and Smoking Urge (SU) constructs, factor loadings continue to be high and consistent: for example, HB7 was 0.840 and SU6 stood at 0.849, again accompanied by z-values that are significant at greater than 10.000, thereby supporting construct validity. Achievement-Enhancing

HR Bundles (AEHR) also demonstrate significant factor loadings, particularly for AEHR2 (3.927) and AEHR5 (4.036), reflecting strong alignment between observed and latent variables. The overall CFA results validate the measurement structure, ensuring the reliability of constructs for hypothesis testing.

Table 3: Confirmatory Factor Analysis.

Measurement	OIM Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
LE1	1	(constrained)				
LE2	0.674	0.049	2.142	0.000	0.578	0.635
LE3	0.646	0.051	1.700	0.000	0.546	0.610
LE4	0.658	0.060	4.070	0.000	0.540	0.641
LE5	0.597	0.062	8.802	0.000	0.475	0.733
LE6	0.742	0.064	10.783	0.000	0.618	0.884
LE7	0.314	0.063	4.829	0.000	0.191	0.445
LE8	0.589	0.069	9.811	0.005	0.491	0.825
PP1	1	(constrained)				
PP2	0.834	0.078	11.774	0.002	0.687	0.864
PP3	0.674	0.068	9.561	0.000	0.541	0.823
PP4	3.783	0.051	70.099	0.000	0.094	0.088
PP5	3.833	0.044	82.212	0.000	0.040	0.129
PP6	0.876	0.069	12.293	0.000	0.742	0.835
PP7	0.799	0.065	11.788	0.000	0.601	0.828
PP8	0.793	0.062	11.752	0.000	0.671	0.934
HB1	1	(constrained)				
HB2	0.815	0.058	13.071	0.000	0.702	0.759
HB3	0.628	0.065	9.254	0.000	0.500	0.771
HB4	0.530	0.060	9.254	0.000	0.678	0.890
HB5	0.840	0.066	11.788	0.000	0.711	0.801
HB6	0.705	0.064	10.147	0.000	0.579	0.848
SU1	1	(constrained)				
SU2	0.774	0.064	11.189	0.000	0.649	0.917
SU3	0.809	0.062	11.987	0.000	0.688	0.763
SU4	4.112	0.049	79.595	0.000	0.239	0.459
SU5	4.059	0.055	69.975	0.000	0.165	0.412
SU6	0.849	0.062	12.453	0.000	0.727	0.804
SU7	0.678	0.058	10.642	0.000	0.564	0.809
SU8	3.948	0.038	98.122	0.000	0.076	0.247
SU9	0.526	0.056	11.600	0.000	0.482	0.790
SU10	1.050	0.089	11.238	0.000	0.998	0.311
SU11	0.846	0.071	11.276	0.000	0.804	0.939
SU12	1.006	0.077	12.465	0.000	0.974	0.233
SC1	1	(constrained)				
SC2	1.200	0.093	12.284	0.000	0.755	0.490
SC3	0.803	0.069	11.123	0.000	0.761	0.818
SC4	3.906	0.042	88.682	0.000	0.021	0.208
AEHR1	1	(constrained)				
AEHR2	3.927	0.043	87.150	0.000	0.042	0.233
AEHR3	0.927	0.083	10.591	0.000	0.870	0.158
AEHR4	0.976	0.092	10.067	0.000	0.906	0.234
AEHR5	4.036	0.043	89.710	0.000	0.166	0.357

Table 4 highlights the fitness statistics of measurement items for each variable, emphasizing their contributions to construct validity. Exercise Benefit Life Enhancement and Physical Performance also displays high indicator loadings: LE7 at 0.760 and PP1 at 0.812. These items represent their dimensions robustly. Lower loadings, such as PP3 at 0.505, may suggest some refinement opportunities but are acceptable within the measurement model. The Health Belief items (e.g., HB6 at 0.731) very regularly show high loadings, thereby strengthening the reliability of the construct. Smoking cessation items

such as SU8 loads high, at 0.812, and SU9 even higher at 0.851. Smoking Urge indicators such as SC3 load at 0.723. Most Achievement-Enhancing HR Bundles demonstrate moderate to high loadings, while the AEHR2 loading comes in at 0.700, which definitely indicates a construct orientation. The general health of all the fitness statistics for all these variables leans towards a robust model. Table 5 Chi-square statistics and Standardized Root Mean Square Residual SRMR for the overall goodness-of-fit evaluation of the model Saturated model 0.067 Estimated model 0.080 All SRMR values are below the threshold

.08. Likelihood ratio chi-square: 12514.623; $p < 0.001$. All these statistics confirm the statistical significance of the overall model, indicating that the hypothesized relationships are well-represented by the observed data. Although the Chi-square test value, $\chi^2_{bs} = 6782.380$,

is high because of the sample size and complexity, its significance $p < 0.001$ supports the baseline against saturated comparison. The fit statistics suggest that this model is well specified and is appropriate to analyze further or perform hypothesis testing.

Table 4: Measurement Items Fitness Statistics.

Variable	Indicator	Original Sample
Exercise benefit	LE1	0.700
	LE2	0.692
	LE3	0.616
	LE4	0.666
	LE5	0.716
	LE6	0.738
	LE7	0.760
	LE8	0.684
	PP1	0.812
	PP2	0.751
	PP3	0.505
	PP4	0.616
	PP5	0.796
	PP6	0.748
	PP7	0.778
	PP8	0.735
	HB1	0.707
	HB2	0.722
	HB3	0.715
	HB4	0.708
	HB5	0.713
	HB6	0.731
	SU1	0.577
	SU2	0.755
	SU3	0.683
	SU4	0.709
	SU5	0.620
	SU6	0.646
	SU7	0.660
	SU8	0.812
	SU9	0.851
	SU10	0.683
	SU11	0.827
	SU12	0.776
Smoking urge	SC1	0.679
	SC2	0.707
	SC3	0.723
	SC4	0.571
Achievement enhancing HR bundles	AEHR1	0.564
	AEHR2	0.700
	AEHR3	0.690
	AEHR4	0.525
	AEHR5	0.665

Table 5: Chi-square Fit Statistics.

	Saturated Model	Estimated Model	Fit statistic	Value	Description
SRMR	0.067	0.080	Likelihood ratio	12514.623	model vs. saturated
			$p > \chi^2$	0.000	
			$\chi^2_{bs}(2356)$	6782.380	baseline vs. saturated
			$p > \chi^2$	0.000	

Table 6: R-Square values, which describe how much of variance is explained by each predictor variable. Health Belief yields an R-square value of 0.528, which interprets that more than 52% of the variance of Health Belief is explained through independent variables in the model.

Similarly, Achievement-Enhancing HR Bundles yield an R-square value of 0.410, which means 41% of the variance of Achievement-Enhancing HR Bundles is accounted for by predictors like Exercise Benefit, Health Belief, Smoking Cessation, and Smoking Urge. These results underscore

the strong explanatory power of the proposed model in capturing the relationships among key variables.

Table 6: R-square Statistics Model Goodness of Fit Statistics.

Variable	R Square
Health belief	0.528
Achievement enhancing HR bundles	0.410

Table 7 reports detailed path coefficients and statistical significance for each hypothesis. H1 provides a strong positive coefficient (0.971) with an extremely high z-value of 84.895, thus effectively confirming the substantial influence of Exercise Benefit on Achievement-Enhancing HR Bundles. The coefficient of H2, which focussed on the significance of Health Belief, is also robust at (0.918) with a z-value of 79.167, thus implying its role in forming the outcomes of HR.

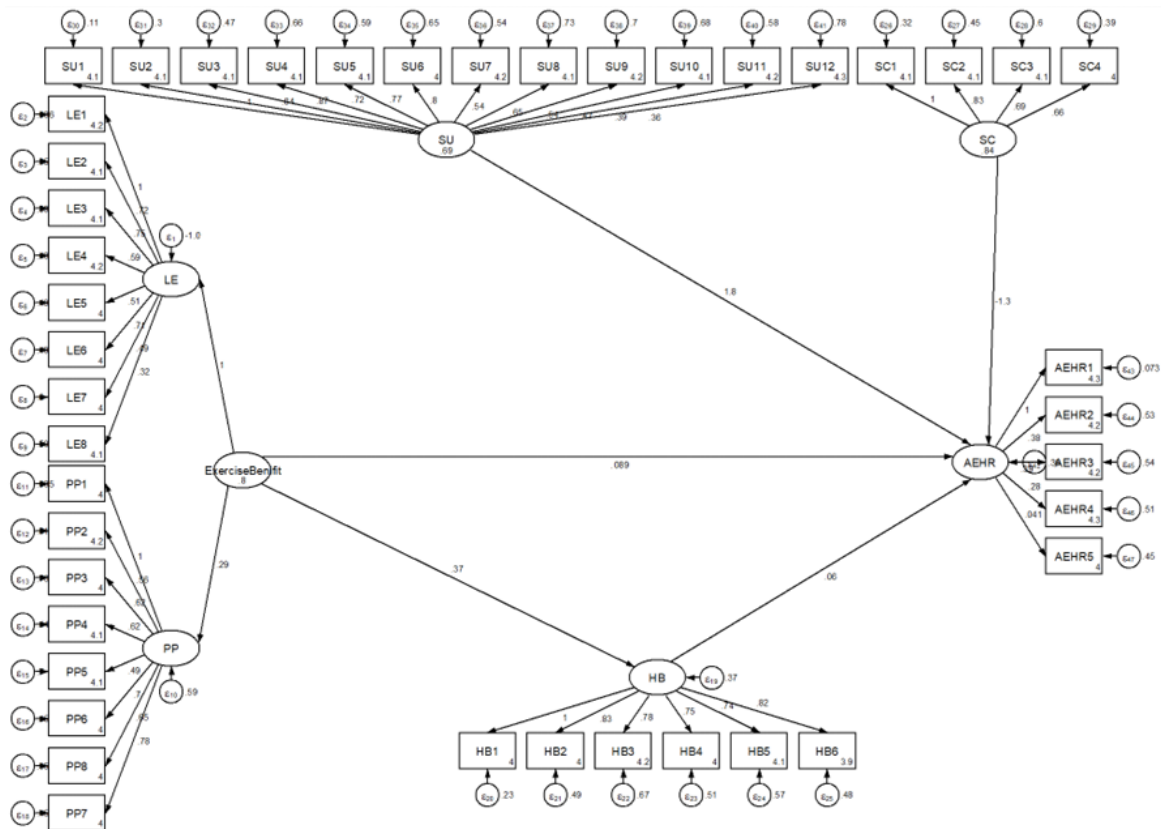


Figure 3: Structural Model for Path Analysis.

The centric nature of Health Belief (H3) as a mediator is presented by having a coefficient of 0.936 and a significant z-value of 9.648, thus demonstrating its importance in connecting Exercise Benefits with HR practices. H4 and H5 examine the moderating roles of Smoking Cessation and Smoking Urge, with coefficients of 0.976 and 0.105,

respectively, showing strong significance at $p < 0.001$. Such a finding again goes to support the subtle interplay among exercise, smoking behaviors, and HR strategies, hence validating all of the hypotheses and, by extension, the entire model.

Table 7: Path Analysis.

	OIM Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
H1. Exercise benefit significantly influences the achievement enhancing HR bundles.	0.971	0.045	84.895	0.000	0.886 0.287
H2. Health belief significantly influences the achievement enhancing HR bundles.	0.918	0.047	79.167	0.000	0.224 0.233
H3. Health belief significantly mediates the relationship of exercise benefit and the achievement enhancing HR bundles.	0.936	0.092	9.648	0.000	0.861 0.189
H4. Smoking cessation significantly moderates the relationship of exercise benefit and the achievement enhancing HR bundles.	0.976	0.092	10.067	0.000	0.906 0.234
H5. Smoking urge significantly moderates the relationship of exercise benefit and the achievement enhancing HR bundles.	0.105	0.099	10.581	0.000	1.037 0.397

DISCUSSION

The dynamic interplay between employee health behaviors

and organizational practices has emerged as a very important area of research in the quest for sustainable

workplace productivity. This research bridges critical gaps by looking into how exercise benefits, health beliefs, smoking cessation, and smoking urges interact to influence achievement-enhancing HR bundles, thus providing a holistic view of the nexus between health and performance. The findings not only support the importance of each factor individually but also shed light on their interdependent roles in enhancing high-performance work environments. By situating the results within theory and application, the study moves forward the understanding of integrated wellness approaches as an organizational attainment driver. The discussion below focuses the implications of the findings on each hypothesis, and offers insights into the theoretical and managerial applicability.

The findings that confirm H1 indicate that exercise benefits are quite influential in determining a value-enhancing HR bundle, and thus, they establish a direct interplay between physical health and workplace productivity. Findings are in agreement with other researchers who assert that exercise helps enhance cognitive functions, increase energy levels, and maintain emotional resilience—all of which play profoundly significant in high-performing HR strategies. Moreover, the integration of exercise into organizational practices contributes to a culture of wellness, promoting collaboration and reducing absenteeism. This study reinforces the argument that organizations investing in exercise-related wellness programs—such as gym memberships or team-building fitness activities—are more likely to see improved employee engagement and goal alignment.^[20] These findings also support the theoretical foundation for Social Cognitive Theory, which suggests that health behavior self-efficacy translates into work-place efficacy where there is performance in the workforce.

Acceptance of H2 highlights the critical influence of health beliefs on achievement-enhancing HR bundles. Such employees with healthy self-beliefs show superior knowledge about the value of wellness and encourage them to take part in human resource bundles made for the betterment of their performance. The findings of this study are in line with the Health Belief Model, which emphasizes the importance of perceived susceptibility to risks for health and the perceived benefits of reducing those risks. Organizational culture that focuses on health awareness can align employee behavior with performance-related HRM goals. This research also sheds light on how health beliefs serve as a motivational anchor. Employees should be encouraged to take part in wellness programs and to develop practice habits that enhance resilience, focus, and teamwork.^[23] Implications are clear: HR policies should incorporate educational campaigns and incentives that enhance health beliefs for better achievement-oriented strategies.

The validity of H3 provides for the acceptance that a mediating role for health beliefs exists within an exercise benefits-achievement-enhancing HR bundles relationship. This result bridges the theoretical gap by showing how cognitive frameworks transform physiological benefits from exercise into work-specific behaviors that enhance

performance. Employees who are strong health believers perceive exercise as ‘being an essential part of their sense of well-being’ and amplify, thereby enhancing productivity in the organization. These findings strengthen the logic suggesting that health beliefs are somehow a cognitive lens through which individuals internalize exercise benefits and apply them to workplace challenges.^[26] A direct message to managers is, therefore that integrating wellness education with exercises fosters synergy, which contributes both to employee well-being and organizational outcomes. This mediating role highlights the necessity for dual-focus interventions, whereby both physical health as well as cognitive awareness are addressed conjointly to maximize HR strategies.

The acceptance of H4 reveals a strong moderating role exercised by smoking cessation: it has an impact on the exercise benefits-achievement-enhancing HR bundles relationship. This leads towards the compounded effect of implementing smoking cessation along with physical health in the workplace context. Employees who stop smoking tend to enjoy better respiratory and cardiovascular health, which maximizes the physical and cognitive benefits gained from exercise. The findings support the Transtheoretical Model of Behavior Change, which emphasizes how the process of overcoming addictive behaviors leads to a general transformation in health and productivity. In addition, the study found that smoking cessation improves not only the individual’s performance but also contributes to a healthier work environment, leading to lower healthcare and absenteeism costs. For organizations, this highlights the value added of providing smoking cessation programs in addition to exercise programs, since the interplay between both factors drastically increases the impact of achievement-focused HR practices.^[14]

The results underlying H5 show that smoking cravings considerably condition the effect of exercising benefits on achievement-enhancing HR bundles. This underlines the disruptive impact of cravings and withdrawal symptoms on workplace wellness initiatives. The findings are in support of research that states smoking urges impair attention, decision making, and engagement in health-enhancing activities. Nonetheless, the study further emphasizes the possibility that exercise might be a mitigating factor because evidence indicates that engaging in physical activity decreases cravings and attenuates withdrawal effects. Such a bilateral relationship reveals that smoking urge presents a challenge but, at the same time, it is an opportunity for HR strategies to focus their interventions around such urges.^[7] Along these lines, integrating exercise programs with other support mechanisms such as nicotine replacement therapies and counseling can address the barriers introduced by smoking urges and ensure that employees can take full advantages of any healthy-oriented initiative.

In total, the findings for H4 and H5 underscore the importance of addressing smoking-related behaviors in

workplace wellness strategies. While smoking cessation amplifies the positive impact of exercise on performance, smoking urges act as a potential disruptor that must be actively managed. These findings highlight the importance of adopting a comprehensive approach to employee health, where physical activity and smoking-related interventions are integrated within HR frameworks. For managers, this underscores the value of creating supportive environments that address both the physiological and psychological dimensions of health behaviors, fostering a resilient and high-performing workforce.^[13]

In conclusion, this research offers a nuanced understanding of the complex interplay between employee health behaviors and achievement-enhancing HR bundles, highlighting the transformative potential of integrating exercise benefits, health beliefs, and smoking-related interventions into workplace strategies. Such findings are not only a validation of theoretical frameworks but also provide actionable insights for managers seeking to optimize organizational performance through health-oriented HR practices. Indeed, organizations may strike an ideal balance between employee well-being and achievement-driven goals by resolving the mediating role of health beliefs and the moderating effects of smoking cessation and urges. Such contributions help to establish the need for an integrated approach toward workplace health, which will lay the foundation for future research and innovation in HR practice.

CONCLUSION

In summary, this research offers an in-depth overview of the relationships between the exercise benefits, health beliefs, smoking cessation, and the achievement-enhancing HR bundles on workplace productivity and well-being, revealing their critical roles. By incorporating theoretical perspectives such as the Health Belief Model, Social Cognitive Theory, and the Transtheoretical Model of Behavior Change in the study, the importance of multi-facets of workplace health in terms of its contribution to organizational performance is brought forward. The study therefore validates the need for health-focused HR strategies, underlining the need for approaches addressing both physical and psychological dimensions of employee well-being. This research is both advanced in its theoretical understanding and pragmatic for taking action towards implementing wellness programs into an organizational setting. Subsequently, the insights developed can be utilized by managers for effective design and implementation of holistic interventions that align employee health with organizational goals. While limitations provide opportunities for future research, the study sets a strong foundation for exploring innovative strategies that prioritize employee health as a cornerstone of organizational success.

Implications of the Study

This research significantly adds to the theoretical understanding of workplace health dynamics by integrating multiple frameworks to explain the interplay between

benefits that accrue from exercise, health beliefs, smoking cessation, and achievement-enhancing bundles of HR. The findings validate the Health Belief Model in that perceptions of vulnerability and benefits mediate the relationship between physical activity and workplace performance. Similarly, the present research contributes to Social Cognitive Theory by suggesting that self-efficacy translates benefits of exercise into concrete organizational outcomes. The Transtheoretical Model of Behavior Change is further supported in finding the effects of quitting and smoking cravings as an instance of how the freeing up from addictive behaviors is associated with employee productivity at work. By combining these theoretical perspectives, the current study draws on a detailed framework within which the health-related behaviors of employees mediate and interact with HR strategies to add value to high-performing organizational environments. Such contributions lay a robust groundwork for future research about health-focused HRM practices well beyond the organizational settings considered in this study.

This research holds great practical implications for any organization in terms of improving employee performance via exercise-based interventions. It brings forward the fact that exercise benefits can be an essential ingredient for HR strategies by showing its potential for fostering resilience, concentration, and teamwork in the workplace. Organizations can stimulate active participation by the employees in healthy practices by aligning personal well-being with organizational goals through health beliefs created by educational campaigns and incentives for wellness. Well, smoking cessation programs stand at the forefront of workplace wellness, not only improving an individual's health but also building a harmonious and productive work culture. Further, reduction of smoking urges through specific interventions like counseling and nicotine replacement therapy makes these programs even more effective. Collectively, these findings call for comprehensive, multi-faceted wellness strategies that address both physical and psychological health to ascertain sustained organizational success.

Limitations and Future Research Directions

Despite the contributions made, this study has several limitations that open the way to future studies. For example, only cross-sectional data are available for analysis. Thus, inferences regarding causal relationships between variables cannot be readily drawn; longitudinal studies would be necessary for the investigation of how changes in exercise benefits, health beliefs, and smoking behaviors shape achievement-enhancing bundles of HRs over time. Specifically, the current study designs are placed in a particular organizational setting. This clearly reduces the generalizability of the findings. For example, possible future studies can be expanded in scope to include various industries and cultural settings to test the robustness of the relationships proposed. Although the study integrates health beliefs and smoking-related factors, it fails to consider other important psychological

and environmental predictors that may influence employee behavior, including workplace stressors, managerial support, or social norms. In the future, such factors can be included to enhance the more profound understanding of the determinants of workplace wellness and performance. Advanced statistical techniques, such as multi-group analysis, also can be used to compare whether there are differences in the mean score across demographic groups-including age, gender, and job roles-to delve more into the tailored wellness approach for different groups.

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APPENDIX 1

Exercise Benefit

Life Enhancement Sub-scale

1. My disposition is improved by exercise.
2. Exercise helps me sleep better at night.
3. Exercise helps me decrease fatigue.
4. Exercising improves my self-concept.
5. Exercising increases my mental alertness.
6. Exercise allows me to carry out normal activities without becoming tired.
7. Exercise improves the quality of my work.
8. Exercise improves overall body functioning for me.

Physical Performance Sub-scale

1. Exercise increases my muscle strength.
2. Exercise increases my level of physical fitness.
3. Muscle tone is improved with exercise.
4. Exercising improves functioning of my cardiovascular system.
5. Exercise increases my stamina.
6. Exercise improves my flexibility.
7. My physical endurance is improved by exercising.
8. Exercise improves the way my body looks.

Health Belief

1. I believe that maintaining regular exercise is essential for preventing serious health problems.
2. I perceive myself to be at risk of health issues if I do not engage in consistent physical activity.
3. Regular participation in wellness programs can significantly improve my overall health and performance.
4. I feel confident that adopting a healthy lifestyle can positively impact my professional achievements.
5. I am concerned about the potential health risks associated with ignoring exercise benefits.
6. I believe that the benefits of maintaining a health-conscious routine outweigh the effort it requires.

Smoking Cessation

1. Have you ever tried to, or felt the need to, Cut down on your smoking?
2. Do you ever get Annoyed when people tell you to quit smoking?
3. Do you ever feel Guilty about smoking?
4. Do you ever smoke within one-half hour of waking up (Eye-opener)?

Smoking Urge

1. Nothing would be better than smoking a cigarette right now.
2. Smoking would make me less depressed.
3. Smoking a cigarette would not be pleasant.
4. All I want right now is a cigarette.
5. Even if it were possible, I probably would not smoke now.
6. I have no desire for a cigarette right now.
7. Smoking now would make things seem just perfect.
8. A cigarette would not taste good right now.
9. I have an urge for a cigarette.

10. I could control things better if I could smoke right now.
11. I am going to smoke as soon as possible.
12. I would do almost anything for a cigarette right now.

Achievement Enhancing HR Bundles

1. Employees receive extensive formal training in this firm each year.
2. Training and development are viewed as critical to the success of the employees.
3. Employees' performance appraisal results are used to plan employee development activities.
4. Training resources and programs are regularly available for employees.
5. People clearly know what performance expectations will be used to evaluate them and they tend to get timely feedback about their progress regarding those expectations.