MENTAL HEALTH AND PSYCHOLOGICAL CAPITAL: EFFECTS ON SAFETY AND ENERGY CONSUMPTION AMONG SCHOOLTEACHERS IN ARDABIL

SALUD MENTAL Y CAPITAL PSICOLÓGICO: EFECTOS EN SEGURIDAD Y CONSUMO ENERGÉTICO EN DOCENTES DE ARDABIL

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ABSTRACT

The present study aimed to investigate the level of mental health and psychological capital among employees of the Ardabil Gas Company and to examine the predictive role of these variables in the transfer of safety attitudes and energy conservation attitudes to school teachers in Ardabil. The research employed a descriptive, correlational, and predictive design. The statistical population consisted of 800 employees of the Gas Company and 5,000 teachers in Ardabil during the 2024–2025 academic year. Using Cochran's formula, a sample of 260 employees and 357 teachers (617 participants in total) was selected through random sampling. The research instruments included the General Health Questionnaire (GHQ-28), Luthans' Psychological Capital Questionnaire (PCQ-24), and two researcher-developed questionnaires for assessing the transfer of safety attitudes and energy conservation attitudes. Data were analyzed using Pearson's correlation coefficient and multiple regression analysis in SPSS version 26. The results indicated a positive and statistically significant relationship between favorable mental health and psychological capital among employees and the extent to which safety attitudes and energy conservation attitudes were transferred to teachers ($p < 0.01$). The results of multiple regression analysis showed that the independent variables jointly explained 40% of the variance in the transfer of safety attitudes and 45% of the variance in the transfer of energy conservation attitudes. Among these variables, psychological capital was a stronger predictor of both dependent variables.

Keywords:

Mental health, psychological capital, gas company, teachers.

RESUMEN

La presente investigación tuvo como objetivo estudiar el nivel de salud mental y capital psicológico de los empleados de la Compañía de Gas de la ciudad de Ardabil, así como examinar el papel predictivo de estas variables en la transferencia de actitudes hacia la seguridad y el consumo eficiente de energía a los docentes de las escuelas de la ciudad de Ardabil. El estudio se realizó mediante un diseño descriptivo, correlacional y predictivo. La población estadística estuvo compuesta por 800 empleados de la Compañía de Gas y 5.000 docentes de la ciudad de Ardabil durante el período 2024-2025. Mediante la fórmula de Cochran, se seleccionó una muestra de 260 empleados y 357 docentes (617 participantes en total) mediante un muestreo aleatorio. Los instrumentos de investigación incluyeron el Cuestionario General de Salud (GHQ-28), el Cuestionario de Capital Psicológico de Luthans (PCQ-24) y dos cuestionarios elaborados por los investigadores para evaluar la transferencia de actitudes hacia la seguridad y el consumo eficiente de energía. Los datos se analizaron mediante el coeficiente de correlación de Pearson y la regresión múltiple utilizando el software SPSS versión 26. Los resultados mostraron que existía una relación positiva y estadísticamente significativa entre una salud mental favorable y el capital psicológico de los empleados y el nivel de transferencia de las actitudes

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hacia la seguridad y el consumo eficiente de energía a los docentes ($p < 0,01$). Los resultados de la regresión múltiple indicaron que las variables independientes, de manera conjunta, explicaron el 40 % de la varianza en la transferencia de las actitudes hacia la seguridad y el 45 % de la varianza en la transferencia de las actitudes relacionadas con el consumo eficiente de energía. Entre estas variables, el capital psicológico fue el predictor más fuerte de ambas variables dependientes.

Palabras clave:

Salud mental, capital psicológico, compañía de gas, docentes.

INTRODUCTION

Energy constitutes one of the fundamental pillars of economic development, social well-being, and the functioning of modern societies. Within this context, natural gas plays a particularly important role in Iran's energy system, both because of its contribution to domestic energy supply and because of its widespread use in residential, educational, commercial, and industrial settings. However, the increasing demand for energy, inefficient consumption patterns, and safety risks associated with the improper use of gas have highlighted the need to complement technical and infrastructural measures with social, behavioral, and educational strategies. Consequently, energy-sector organizations are increasingly expected not only to guarantee the continuity and quality of energy services but also to promote responsible consumption and strengthen a culture of safety within the population.

Service and infrastructure organizations such as gas companies occupy a strategic position in this process because their employees maintain direct relationships with citizens and with institutions capable of influencing community behavior. The effectiveness of these interactions depends not only on employees' technical knowledge but also on their psychological and interpersonal capacities. Employees working in infrastructure companies may be exposed to considerable occupational demands due to workload, safety hazards, responsibility for essential services, and continuous interaction with the public. These conditions can negatively affect their psychological well-being and, consequently, their professional and social performance (World Health Organization, 2024). Mental health therefore has implications that extend beyond individual well-being, as it can influence employees' ability to communicate organizational values, interact effectively with different social groups, and promote desirable behaviors.

Mental health is a fundamental component of employees' well-being and their ability to function effectively within organizational environments. Adverse working conditions, including excessive workloads, limited job control, and unsafe environments, can negatively affect workers' mental health, whereas safe and healthy workplaces can contribute to improved performance and productivity (World Health Organization, 2024). Likewise, prolonged occupational stress and burnout can have important consequences for workers' psychological well-being and mental health (Papathanasiou et al., 2015). In organizational settings, favorable mental health can facilitate interpersonal communication, professional responsibility, decision-making, and the management of occupational pressures. Employees with higher levels of psychological well-being may therefore be better prepared to assume roles that require interaction, persuasion, education, and the transmission of socially relevant messages.

Closely related to mental health is psychological capital, a construct derived from positive psychology that encompasses self-efficacy, hope, resilience, and optimism (Luthans et al., 2007). Unlike relatively stable personality characteristics, psychological capital represents a set of positive psychological resources that can be strengthened and developed. These resources allow individuals to approach occupational challenges with greater confidence, persevere toward goals, recover from difficulties, and maintain positive expectations regarding future outcomes. Employees with higher psychological capital have shown more favorable attitudes, behaviors, and levels of performance, as well as a greater capacity to transmit positive attitudes and socially responsible behaviors (Avey et al., 2011).

The relevance of mental health and psychological capital becomes particularly evident in organizations responsible for promoting occupational and public safety. Safety attitudes involve beliefs, evaluations, and behavioral tendencies regarding the importance of complying with preventive standards and avoiding practices that may generate harm. Within infrastructure organizations, inadequate safety attitudes can contribute to human error, accidents, and loss of public confidence, whereas favorable attitudes can strengthen responsible behavior and organizational stability. The transmission of such attitudes depends, among other factors, on the credibility of the person communicating the message, their self-efficacy, and their capacity to adapt technical information to the characteristics of the target audience (Bandura, 1997).

At the same time, efficient energy consumption has become an essential component of sustainable development. It involves the responsible and intelligent use of available resources in order to satisfy current needs while minimizing unnecessary consumption and preventing waste. From a social perspective, energy consumption is not determined exclusively by technological conditions or economic incentives; it is also influenced by beliefs, attitudes, learned behaviors, and the social environment. For this reason, promoting efficient energy use requires educational interventions capable of transforming knowledge into stable behavioral patterns. Environmental psychology has

associated these practices with pro-environmental behavior and with individuals' awareness of the social and environmental consequences of their consumption decisions (Sawitri et al., 2015).

Previous research suggests that employees' psychological characteristics may contribute to the effectiveness of safety and energy education. Su & Hahn (2023) found that psychological capital positively influences organizational citizenship behaviors, with prosocial motivation playing a mediating role, highlighting the importance of employees' psychological resources in promoting behaviors that benefit the organization and others. Employees with stronger psychological resources were more capable of communicating educational messages with motivation, credibility, and effectiveness.

Other studies have reinforced the relevance of mental health in organizational and social interactions. Milner et al. (2019), using longitudinal data from 16 waves of a population-based cohort study, found that workers in health and human service occupations experienced differential exposure to psychosocial working conditions associated with mental health. Their findings highlight the importance of the occupational environment and working conditions in understanding employees' mental health and psychological well-being.

Likewise, Kirkbride et al. (2024) emphasized that mental health is shaped by multiple social, economic, environmental, and structural determinants, highlighting the importance of considering the broader contexts in which individuals live and work. In the occupational context, Lyubykh et al. (2022) demonstrated through meta-analytic evidence that leadership is significantly associated with workplace safety outcomes, underscoring the importance of organizational and psychosocial factors in fostering safer work environments. Nguyen & Cao (2024) similarly emphasized that employees with higher psychological capital demonstrated a greater ability to communicate safety concepts and responsible energy-consumption practices.

However, the effectiveness of these messages also depends on the social characteristics of the target group. Teachers represent one of the most influential groups in society because of their educational role and their ability to shape attitudes and behaviors among students and, indirectly, within families. Their position within the educational system allows them to act as social multipliers of information and values. When teachers internalize safety principles and responsible energy-consumption practices, these attitudes can be reproduced in classrooms, households, and broader community contexts, contributing to the development of more sustainable behavioral norms. Research has also emphasized the importance of teachers' cognitive, emotional, personality, social, and professional characteristics in determining the quality of their interactions and educational performance.

From this perspective, Gas Company employees may function as an important link between specialized technical knowledge and the educational community. Their ability to communicate safety recommendations and efficient energy-consumption practices may depend not only on the content of the information they provide but also on the psychological resources they mobilize during interpersonal interactions. Employees with favorable mental health, self-efficacy, optimism, hope, and resilience may communicate messages with greater confidence, credibility, adaptability, and persuasive capacity. This approach is consistent with Bandura's social learning theory, according to which attitudes and behaviors can be acquired not only through direct instruction but also through observation, interpersonal interaction, and behavioral modeling (Bandura, 1997).

Despite the growing body of research on mental health, psychological capital, safety attitudes, and sustainable consumption, these variables have frequently been examined separately or primarily within employees' internal organizational environments. Less attention has been given to the possible influence of employees' psychological characteristics on the transmission of safety and energy-consumption attitudes to external educational groups. This issue is particularly relevant in Ardabil, where cooperation between energy-sector organizations and schools may provide an opportunity to strengthen safety culture and responsible energy use through influential social actors such as teachers.

Therefore, the objective of this study was to evaluate the mental health and psychological capital of employees of the Ardabil City Gas Company and determine their effects on the transmission of safety attitudes and optimal energy consumption practices to teachers in Ardabil schools.

MATERIALS AND METHODS

In terms of its objective, the present study is an applied research study, as its findings can be operationally utilized in developing educational and human-resource empowerment programs within the Gas Company. In terms of its nature and methodology, the study falls within the category of descriptive–correlational research with a predictive approach, as its primary objective is to explain the relationships between mental health and psychological capital and the transmission of safety attitudes and efficient energy consumption attitudes. This approach makes it possible to accurately estimate the contribution and explanatory power of each independent variable in predicting changes in the criterion variable, namely attitude transmission.

This methodology was selected because the study seeks to examine these relationships under the natural and actual conditions of the organization without directly manipulating the independent variables. By employing predictive statistical models, such as regression analysis or

structural equation modeling, simultaneous relationships can be assessed and the extent to which psychological variables influence behavioral outcomes can be determined. In addition to enhancing the external validity of the study, this methodological framework provides a robust basis for scientific inference and for developing practical recommendations aimed at improving employee performance in the process of culture building.

The statistical population of the study consisted of two target groups. The first group comprised permanent and contractual employees of the Ardabil City Gas Company. Based on the organizational structure and operational divisions, this population consisted of 800 employees. The second group comprised teachers employed in schools in Ardabil, whose population was estimated at more than 5,000 individuals based on regional school statistics.

Given the size of these populations, Cochran's formula was used to determine the sample size, with a margin of error of 0.05 and a 95% confidence level. Accordingly, the sample size was estimated at approximately 260 employees of the Gas Company and 357 teachers, who were selected using stratified random sampling. To collect quantitative data and test the research hypotheses, standardized and valid research instruments were employed. These instruments were as follows:

The present study employed the Mental Health Continuum–Short Form (MHC-SF) developed by Keyes (2002). This instrument assesses three main dimensions of mental health: emotional well-being, psychological well-being, and social well-being (Table 1).

This instrument was developed based on Luthans' model (2007) and assesses four core components:

1. Self-efficacy: An individual's belief in their ability to successfully perform tasks.
2. Hope: Having the agency and pathways necessary to achieve goals.
3. Resilience: The ability to recover and return to an adaptive state following adversity and difficulties.
4. Optimism: A positive outlook toward current and future events.

Table 1. Validity and Reliability of the Research Instruments.

Variable	Instrument	Type of Validity	Validity Index	Scientific Criterion/ Threshold	Type of Reliability	Reliability Index	Scientific Criterion/ Threshold	Description
Mental Health	General Health Questionnaire (GHQ)	Construct validity	CFA / Content validity	CFI > 0.90, TLI > 0.90, RMSEA < 0.08	Internal consistency	Cronbach's alpha	$\alpha \geq 0.70$	Standardized and widely used instrument
Psychological Capital	Luthans' Psychological Capital Questionnaire (PCQ)	Construct validity	CFA	CFI > 0.90, TLI > 0.90, RMSEA < 0.08	Internal consistency	Cronbach's alpha	$\alpha \geq 0.70$	Comprises four core components
Transmission of Safety Attitudes	Researcher-developed questionnaire	Content validity	CVR	CVR based on a 10-member expert panel; CVI ≥ 0.70	Internal consistency	Cronbach's alpha	$\alpha \geq 0.70$	Based on expert judgment
Transmission of Attitudes toward Efficient Energy Consumption	Researcher-developed questionnaire	Content/ construct validity	CVR, CVI, CFA	Acceptable CVR and CVI values; CFA fit indices within acceptable ranges	Internal consistency	Cronbach's alpha	$\alpha \geq 0.70$	Requires reporting in the final manuscript

Note: CFA = Confirmatory Factor Analysis; CVR = Content Validity Ratio; CVI = Content Validity Index; CFI = Comparative Fit Index; TLI = Tucker–Lewis Index; RMSEA = Root Mean Square Error of Approximation.

In the present study, data analysis will be conducted at both descriptive and inferential levels using SPSS version 26 and AMOS version 24. Descriptive statistics will be used to summarize the characteristics of the study variables, while inferential statistical analyses will be employed to test the research hypotheses and examine the relationships among the study variables (Table 2).

Table 2. Validity and Reliability of the Research Instruments.

Variable	Instrument	Type of Validity	Validity Index	Scientific Criterion/ Threshold	Type of Reliability	Reliability Index	Scientific Criterion/ Threshold	Description
Mental Health	28-item General Health Questionnaire (GHQ-28)	Construct validity	CFA / Content validity	CFI > 0.90, TLI > 0.90, RMSEA < 0.08	Internal consistency	Cronbach's alpha	$\alpha \geq 0.70$	Standardized and widely used instrument
Psychological Capital	Luthans' Psychological Capital Questionnaire (PCQ-24)	Construct validity	CFA	CFI > 0.90, TLI > 0.90, RMSEA < 0.08	Internal consistency	Cronbach's alpha	$\alpha \geq 0.70$	Comprises four core components: self-efficacy, hope, resilience, and optimism
Transmission of Safety Attitudes	Researcher-developed questionnaire	Content validity	CVR, CVI	CVR and CVI values based on the evaluation of a 10-member expert panel	Internal consistency	Cronbach's alpha	$\alpha \geq 0.70$	Developed based on expert judgment and the objectives of the study
Transmission of Attitudes toward Efficient Energy Consumption	Researcher-developed questionnaire	Content/ construct validity	CVR, CVI, CFA	Acceptable CVR and CVI values; CFA fit indices within acceptable ranges	Internal consistency	Cronbach's alpha	$\alpha \geq 0.70$	Developed based on expert judgment and the objectives of the study

Note: CFA = Confirmatory Factor Analysis; CVR = Content Validity Ratio; CVI = Content Validity Index; CFI = Comparative Fit Index; TLI = Tucker–Lewis Index; RMSEA = Root Mean Square Error of Approximation.

In the present study, data analysis will be conducted at both descriptive and inferential levels using SPSS version 26 and AMOS version 24. Descriptive statistics will be used to summarize the demographic characteristics and distribution of the study variables. Inferential statistical analyses, including Pearson's correlation coefficient and multiple regression analysis, will be employed to examine the relationships among the variables and test the research hypotheses. Confirmatory factor analysis will also be used, where appropriate, to evaluate the construct validity of the research instruments.

RESULTS AND DISCUSSION

Based on the sampling design of the study, a total of 260 employees of the Ardabil City Gas Company and 357 teachers from schools in Ardabil were included as the final sample in the analyses. The frequency and percentage distributions of the respondents according to gender, age, educational level, and years of service are presented in table 3, 4, 5, 6 and 7.

A. Description of the Demographic Characteristics of Gas Company Employees

Table 3. Age Distribution of Gas Company Employees.

Age Group	Frequency	Percentage
Less than 30 years	34	13.1
30–39 years	96	36.9
40–49 years	87	33.5
50 years and older	43	16.5
Total	260	100

Table 4. Gender Distribution of Gas Company Employees.

Gender	Frequency	Percentage
Male	198	76.2
Female	62	23.8
Total	260	100

Table 5. Educational Level of Gas Company Employees.

Educational Level	Frequency	Percentage
Diploma and Associate Degree	58	22.3
Bachelor's Degree	129	49.6
Master's Degree	61	23.5
Doctoral Degree	12	4.6
Total	260	100

Table 6. Years of Service of Gas Company Employees.

Years of Service	Frequency	Percentage
Less than 5 years	29	11.2
5–10 years	63	24.2
11–20 years	104	40.0
More than 20 years	64	24.6
Total	260	100

B. Gender Distribution of School Teachers

Table 7. Gender Distribution of School Teachers.

Gender	Frequency	Percentage
Male	149	41.7
Female	208	58.3
Total	357	100

The normality of the data distribution was assessed using skewness and kurtosis indices. According to widely accepted methodological criteria, when skewness and kurtosis values fall within the range of ±2, the distribution of the data can generally be considered acceptably normal. Some methodological sources consider the narrower range of ±1 to represent a more desirable level of normality. In the present study, given the relatively adequate sample size, the ±2 criterion was adopted for determining acceptable normality (Table 8).

Table 8. Results of the Assessment of Normality of the Study Variables.

Variable	Mean	Standard Deviation	Skewness	Kurtosis	Normality Status
Employees' mental health	76.84	14.27	0.41	-0.36	Confirmed
Employees' psychological capital	89.63	12.18	-0.28	-0.44	Confirmed
Transmission of safety attitudes	45.72	7.86	-0.33	-0.29	Confirmed
Transmission of attitudes toward efficient energy consumption	46.89	7.41	-0.25	-0.31	Confirmed

The skewness and kurtosis values for all major study variables fell within the acceptable range. Therefore, the distributions of the study variables can be considered to exhibit relative normality, and the use of parametric statistical tests, including Pearson's correlation coefficient, multiple regression analysis, and structural equation modeling, is justified. For further verification, the Kolmogorov–Smirnov test was also conducted for the main study variables. Given that this test is highly sensitive to even minor deviations from normality in large samples, the primary criterion in the present study was based on the skewness and kurtosis indices (Table 9).

Table 9. Results of the Kolmogorov–Smirnov Test for the Main Study Variables.

Variable	K–S Statistic	Significance Level
Employees' mental health	0.071	0.062
Employees' psychological capital	0.066	0.081
Transmission of safety attitudes	0.058	0.094
Transmission of attitudes toward efficient energy consumption	0.061	0.088

Since the significance level was greater than 0.05 for all variables, the null hypothesis of normality was not rejected. Therefore, the results of the Kolmogorov–Smirnov test further support the findings obtained from the skewness and kurtosis assessment (Table 10).

Table 10. Results of the Assessment of Error Independence Using the Durbin–Watson Statistic.

Model	Criterion Variable	Durbin–Watson Statistic	Result
Model 1	Transmission of safety attitudes	1.89	Independence of errors confirmed
Model 2	Transmission of attitudes toward efficient energy consumption	1.94	Independence of errors confirmed

The Durbin–Watson statistics for both models fall within the acceptable range. Therefore, there is no evidence of significant autocorrelation among the model residuals, and the assumption of error independence required for regression analysis is satisfied (Table 11).

Table 11. Results of the KMO and Bartlett's Test for the Study Variables.

Variable/Construct	KMO Index	Bartlett's Test Statistic	Degrees of Freedom	Significance Level	Result
Employees' mental health	0.87	1846.52	378	0.001	Sampling adequacy confirmed
Employees' psychological capital	0.89	2134.76	276	0.001	Sampling adequacy confirmed
Transmission of safety attitudes	0.84	1268.41	66	0.001	Sampling adequacy confirmed
Transmission of attitudes toward efficient energy consumption	0.86	1317.58	66	0.001	Sampling adequacy confirmed

The findings presented in Table 11 indicate that the KMO values for all study constructs were above 0.80. Accordingly, the sample size was considered adequate for factor analysis and structural modeling. Furthermore, the statistically significant Bartlett's test results at the 0.001 level in all cases indicate that the correlation matrices among the items were suitable for factor analysis and that the data possessed sufficient adequacy for subsequent advanced statistical analyses.

Main Hypothesis:

Mental health and psychological capital among employees of the Ardabil City Gas Company have positive and significant effects on the extent to which safety attitudes and efficient energy consumption attitudes are transmitted to teachers in schools in Ardabil.

Since the main hypothesis includes two dependent variables, the effects of the independent variables on the two study outcomes—namely, the transmission of safety attitudes and the transmission of attitudes toward efficient energy consumption—were examined separately. For this purpose, simultaneous multiple regression analysis was employed.

Predicting the Transmission of Safety Attitudes

Table 12 shows that both optimal mental health and psychological capital significantly predicted safety attitude transmission ($p = 0.001$), with psychological capital showing the stronger effect ($\beta = 0.48$).

Table 12. Multiple Regression Results for Predicting the Transmission of Safety Attitudes.

Predictor / Model indicator	B	SE	β	t	p
Optimal mental health	0.21	0.06	0.26	3.50	0.001
Psychological capital	0.31	0.07	0.48	4.43	0.001
Model summary					
R	0.63				
R^2	0.40				
Adjusted R^2	0.39				
F	85.71				0.001

As shown in Table 12, the overall regression model for predicting the transmission of safety attitudes is statistically significant. The coefficient of determination (R^2) was 0.40, indicating that optimal mental health and psychological capital, jointly, explained 40% of the variance in the transmission of safety attitudes. The remaining 60% may be attributable to factors outside the model, such as formal training, work experience, organizational support, characteristics of teachers, and school-related conditions.

Both predictor variables demonstrated positive and statistically significant relationships with the transmission of safety attitudes. The standardized regression coefficient for psychological capital was 0.48, indicating that this variable made a greater contribution to predicting the transmission of safety attitudes than optimal mental health. In other words, a one-standard-deviation increase in employees' psychological capital was associated with an approximately 0.48-standard-deviation increase in the transmission of safety attitudes. However, this interpretation should not be construed as evidence of a definitive causal relationship.

B. Predicting the Transmission of Attitudes toward Efficient Energy Consumption

Table 13. Multiple Regression Results for Predicting the Transmission of Attitudes toward Efficient Energy Consumption.

Predictor / Model Indicator	B	SE	β	t	p
Optimal mental health	0.18	0.06	0.22	3.00	0.003
Psychological capital	0.39	0.07	0.52	5.57	0.001
Model summary					
R	0.67				
R^2	0.45				
Adjusted R^2	0.44				
F	103.32				0.001

As presented in Table 13, the regression model for predicting the transmission of attitudes toward efficient energy consumption is statistically significant. The coefficient of determination (R^2) of 0.45 indicates that optimal mental health and psychological capital jointly explain 45% of the variance in the transmission of attitudes toward efficient energy consumption.

In this model, psychological capital, with a standardized coefficient of 0.52, was the strongest predictor of the transmission of attitudes toward efficient energy consumption. Optimal mental health also demonstrated a positive and statistically significant effect, with a standardized coefficient of 0.22. Accordingly, employees with more favorable mental health and higher levels of psychological capital appear to have greater capacity for transmitting concepts related to responsible and efficient energy consumption.

Given the statistical significance of the regression coefficients in both models, the main research hypothesis is supported. However, because the present study adopts a correlational-predictive design, the term "effect" should be interpreted cautiously as referring to statistical predictive power rather than definitive causality.

The present findings reinforce the importance of psychological resources in promoting adaptive behaviors and effective social interactions. Romero-Aguirre et al. (2026) highlight the relevance of psychological well-being and interventions aimed at strengthening individual resources in changing contexts. Similarly, Shokrpour et al. (2024) demonstrated significant relationships between emotional and cultural intelligence and learning processes, emphasizing the role of psychological competencies in adaptation, communication, and educational effectiveness. In this context, the present findings extend this perspective by suggesting that psychological capital may contribute to the effective transmission of safety attitudes beyond organizational boundaries.

The findings are also consistent with studies by De Vries et al. (2023); and Keyes (2002), which indicate that higher levels of mental health and psychological well-being are associated with improved extra-role behaviors and greater willingness to engage in organizational citizenship behaviors and the promotion of constructive behaviors. From this perspective, employees with more favorable mental health may be better positioned to communicate organizational values and safety-related messages effectively.

The findings are also compatible with research grounded in Bandura's Social Learning Theory. From this perspective, attitude transmission is more likely to be successful when the message source possesses strong cognitive and motivational characteristics and is therefore perceived as a competent and credible behavioral model. Employees who demonstrate confidence, psychological resilience, optimism, and goal-oriented behavior may be more readily accepted as credible sources by external audiences.

CONCLUSIONS

The present study goes beyond previous research, which has predominantly examined the organizational consequences of mental health and psychological capital, such as enhanced productivity, improved job performance, and reduced turnover intentions. Instead, this study investigates the extra-organizational dimension of these psychological resources by examining their relationship with the transmission of safety and efficient energy consumption attitudes to an external target group, namely school teachers.

The principal scientific contribution of the study is the demonstration that the psychological resources and mental health of employees in a public service-oriented organization such as the Gas Company may be associated with their social influence and persuasive capacity among external stakeholders, particularly teachers within the education system.

Furthermore, to the best of the researchers' knowledge, previous studies have not simultaneously examined the relationship between these variables and the transmission of safety and environmental attitudes to the educational community within the specific cultural and climatic context of Ardabil. Given the relatively cold climate of the region and the consequent importance of natural gas consumption during the heating season, promoting efficient energy consumption represents a particularly relevant social and educational issue.

Accordingly, the present study establishes a conceptual bridge between positive psychology, human resource management, safety culture, and the sociology of education and energy consumption. This interdisciplinary perspective provides a broader understanding of how the psychological characteristics of organizational employees may contribute not only to internal organizational performance but also to broader processes of social learning, attitude formation, and public awareness.

REFERENCES

Avey, J. B., Reichard, R. J., Luthans, F., & Mhatre, K. H. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. ***Human Resource Development Quarterly, 22***(2), 127–152. https://doi.org/10.1002/hrdq.20070

Bandura, A. (1997). ***Self-efficacy: The exercise of control***. Freeman.

De Vries, N., Lavreysen, O., Boone, A., Bouman, J., Szemik, S., Baranski, K., Godderis, L., & De Winter, P. (2023). Retaining Healthcare Workers: A Systematic Review of Strategies for Sustaining Power in the Workplace. ***Healthcare (Basel, Switzerland)***, ***11***(13), 1887. https://doi.org/10.3390/healthcare11131887

Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. ***Journal of Health and Social Behavior, 43***(2), 207–222. https://doi.org/10.2307/3090197

Kirkbride, J. B., Anglin, D. M., Colman, I., Dykxhoorn, J., Jones, P. B., Patalay, P., Pitman, A., Soneson, E., Steare, T., Wright, T., & Griffiths, S. L. (2024). The social determinants of mental health and disorder: evidence, prevention and recommendations. *World psychiatry: official journal of the World Psychiatric Association (WPA)*, *23*(1), 58–90. https://doi.org/10.1002/wps.21160

Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology, 60*(3), 541–572. https://doi.org/10.1111/j.1744-6570.2007.00083.x

Lyubykh, Z., Turner, N., Hershcovis, M. S., & Deng, C. (2022). A meta-analysis of leadership and workplace safety: Examining relative importance, contextual contingencies, and methodological moderators. *Journal of Applied Psychology, 107*(12), 2149–2175. https://doi.org/10.1037/apl0000557

Milner, A., King, T. L., & Kavanagh, A. (2019). The mental health impacts of health and human service work: Longitudinal evidence about differential exposure and susceptibility using 16 waves of cohort data. *Preventive Medicine Reports, 14*, 100826. https://doi.org/10.1016/j.pmedr.2019.100826

Nguyen, T. D., & Cao, T. H. (2024). Psychological capital: A literature review and research trends. *Asian Journal of Economics and Banking, 8*(3), 412–429. https://doi.org/10.1108/AJEB-08-2023-0076

Organization of Education and Training of Ardabil Province. (2026). *Statistical yearbook and descriptive information of schools in Ardabil*. Deputy of Planning and Resource Development.

Papathanasiou I. V. (2015). Work-related Mental Consequences: Implications of Burnout on Mental Health Status Among Health Care Providers. *Acta informatica medica: AIM: journal of the Society for Medical Informatics of Bosnia & Herzegovina: casopis Drustva za medicinsku informatiku BiH*, *23*(1), 22–28. https://doi.org/10.5455/aim.2015.23.22-28

Romero-Aguirre, G. de los Á., Peralta-Jiménez, Y., & Campos-Gómez, A. A. del C. (Coords.). (2026). *Bienestar psicológico en contextos de cambio: Evidencias e intervenciones*. Sophia Editions.

Sawitri, D. R., Hadiyanto, H., & Hadi, S. P. (2015). Pro-environmental behavior from a social-cognitive theory perspective. *Procedia Environmental Sciences, 23*, 27–33. https://doi.org/10.1016/j.proenv.2015.01.005

Shokrpour, N., Soleymani, Z., & Farahmandi, A. (2024). Investigating the relationship between electronic learning and emotional and cultural intelligence of 2021-2022 incoming nursing students at Shiraz University of Medical Sciences. *BMC medical education*, *24*(1), 1332. https://doi.org/10.1186/s12909-024-06328-8

Su, W., & Hahn, J. (2023). Psychological Capital and Organizational Citizenship Behaviors of Construction Workers: The Mediating Effect of Prosocial Motivation and the Moderating Effect of Corporate Social Responsibility. *Behavioral sciences (Basel, Switzerland)*, *13*(12), 981. https://doi.org/10.3390/bs13120981

World Health Organization. (2024). *Mental health at work*. https://www.who.int/news-room/fact-sheets/detail/mental-health-at-work

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The author declares no conflicts of interest.

Author Contributions:

Soniya Ejmali, Mortaza Farajian: Conceptualization, data curation, formal analysis, investigation, methodology, supervision, validation, visualization, original draft writing, and writing, review, and editing.

Ethical statement:

The study was conducted in accordance with the ethical principles of scientific research. Participation was voluntary, and informed consent was obtained from all participants. Confidentiality, anonymity, and respect for the rights of populations considered vulnerable were ensured.