

The relationship between mindfulness, work-related stress management, and job satisfaction in a sample of Italian correctional officers

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Abstract

Introduction: The present research aims to investigate the relationship between mindfulness, work-related stress management, and job satisfaction in the correctional context.

Methods: The study enlisted the participation of 131 Italian correctional officers (F = 72,5%) in working age. The quantification of mindfulness levels was achieved by implementing the Five Facets Mindfulness Questionnaire-short form (FFMQ-SF). A subset of the Organizational-Emotional Intelligence Questionnaire (ORG EIQ) facilitated the assessment of work-related stress management. A 5-item Likert scale was employed to gauge job satisfaction. Descriptive statistics (mean and standard deviation) of the sample were analyzed. Subsequently, reliability analyses were performed using Cronbach's alpha. Finally, a simple mediation analysis was conducted to define the role of work-related stress management, and the direct, indirect, and total effects were calculated.

Results: Concerning the indirect effect, mindfulness had a significant impact on work-related stress management [$\beta=0.42$; $p<.05$], which, in turn, showed a significant effect on job satisfaction [$\beta=0.26$; $p<.001$].

Discussion and Conclusion: Our findings highlight mindfulness's potential and beneficial effects within social and occupational contexts, especially in the case of high-risk populations such as correctional officers.

Take-home message: This study indicates a statistically significant correlation between mindfulness, job satisfaction, and work-related stress management among correctional officers. In particular, mindfulness has a significant direct effect on job satisfaction.

Keywords: Correctional Officers; Mindfulness; Organizational Contexts; Stress; Job Satisfaction; Well-being

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INTRODUCTION

This study explores the complex interplay involving mindfulness, the management of work-related stress, and job satisfaction within a distinctive group of Italian correctional officers. The literature surrounding mindfulness has witnessed diverse interpretations, encompassing various approaches, theories, mindsets, and practices [1-5]. To establish clarity, this research adopts the prevailing definition of mindfulness, conceptualized by John Kabat-Zinn as a practice or cognitive state fostering non-judgmental awareness of the present moment [1,2,6]. In alignment, Good and colleagues (2016) characterize mindfulness as a state of consciousness characterized by receptive attention to and awareness of present events and experiences without evaluation, judgment, and cognitive filters [7]. Expanding upon these cornerstones, our study seeks to elucidate the intricate interplay between mindfulness, work-related stress management, and job satisfaction within a specific group of Italian correctional officers.

Psychological mindfulness strategies primarily seek to heighten introspection and awareness of automatic thought patterns and behaviors, cultivating present-moment awareness to disengage from them [6,8,9]. These approaches can be categorized into two major streams: "*meditation-oriented*," rooted in Buddhist traditions and employed in clinical contexts, and "*mindset-oriented*," aligned with modern psychological practices in organizational settings [6,9].

Mindfulness meditation exhibits links to reduced somatic health issues [10] and chronic worry management [10], manifesting in psychological and physiological improvements such as increased cardiac, respiratory sinus arrhythmia [11], cardiac output, lowered respiratory rates [10], and decreased blood pressure [5]. Literature also associates mindfulness with intrapersonal and interpersonal growth [12], evidenced by enhanced stress management, perceived well-being [13], and improved relationship dynamics [14]. Mindfulness-based interventions exhibit efficacy in treating depression, stress, anxiety, pain, and substance abuse [2,5,6,15-17].

Psychological-based mindfulness fosters a negative relationship with depressive symptoms in young adults [18] and positively correlates with sleep quality [19] and overall life satisfaction [5,8,16]. In organizational contexts, mindfulness correlates with goal attainment [20], positive emotions, life satisfaction, and overall well-being [21], along with heightened stress management skills and relationship competencies [11,12]. Furthermore, meditation-oriented mindfulness traits are inversely linked to hostility and aggression [22].

The notion of job satisfaction is intricate. Research on organizational behaviour has extensively centred around the concept of job satisfaction. According to Lu et al. (2012) [23], job satisfaction

encompasses not only an individual's emotional state towards their job but also the inherent characteristics of the job and the individual's expectations regarding the job's provisions [23]. In this regard, job satisfaction encompasses many facets, including job conditions, communication, job characteristics, organizational policies and procedures, compensation and benefits, prospects for advancement, recognition and appreciation, security, supervision, and relationships. While degrees of job satisfaction may vary, several recurrent factors surface in various studies. These factors include working conditions and the organizational milieu, stress levels, role conflicts and ambiguities, role perceptions and content, and organizational and professional commitment [23]. In light of these factors, it becomes evident that low job satisfaction is associated with high levels of burnout and work-related stress [24].

Among correctional officers, a range of occupational hazards can be identified, including excessive work demands, inadequate availability of resources, interactions with inmates, facility overcrowding, feelings of fear or jeopardy, and the contradictory nature of punishment and rehabilitation [24,25]. These risks may increase work-related stress disorders and burnout levels among workers. On the contrary, protective elements encompass the presence of social support within the prison setting. Mitigating strategies involve enhancing officer training, fostering social support networks, and providing psychological assistance. These are some of the most effective work-related stress management measures [25].

Few studies have reported mindfulness efficacy in the correctional setting [22,26–28]. The prison environment is exhausting and complex. Correctional officers have to fulfil two opposing roles: the maintenance of order and security on the one hand and the moral and emotional care of the prisoner. Prison staff present increased levels of stress [26,29], burnout, absenteeism [30], turnover intention [31], and alcohol and drug use [32]. In this regard, it is essential to use resources and occupational tools to improve job satisfaction and promote institutional resilience within the prison environment.

Various studies based on military contexts have shown how mindfulness practices can improve perceived stress and resilience in mitigating post-traumatic stress disorder (PTSD) symptoms [33]. Similarly, in the medical and nursing contexts, mindfulness was effective in significantly reducing state anxiety and depression, reducing burnout levels and improving the perceived well-being of individuals and their state of calmness, awareness, and enthusiasm [26,30,34].

Consequently, investigating mindfulness potential in a stressful setting, such as a correctional facility, seems particularly interesting. Therefore, this study explores the complex interplay involving mindfulness, the management of work-related stress, and job satisfaction within a distinctive group of Italian correctional officers.

Mindfulness, work-related stress management and job satisfaction

Drawing upon the framework of the Affective Events Theory (AET) [35], there is a compelling indication that mindfulness is intricately linked to heightened job satisfaction. This linkage can be attributed to its ability to adequately navigate adversities in micro-daily organizational occurrences and foster harmonious interactions with colleagues and clients [36–38]. The positive impact of mindfulness extends to emotional regulation and affective well-being [39], with a noteworthy inverse correlation between mindfulness traits and emotional exhaustion and a positive association with job satisfaction [40]. Individuals embracing mindfulness typically exhibit a preponderance of affirmative emotional responses compared to unfavourable ones [28,29], fostering an inclination towards acceptance and empathy that fortifies interpersonal relationships within the workplace [7,41].

Furthermore, deploying mindfulness-based stress reduction (MBSR) programs may be a strategic manoeuvre to bolster well-being and resilience in this context. Empirical substantiation affirms the efficacy of MBSR interventions in enhancing the management of distressing scenarios [42,45]. Notably, a concise MBSR regimen tailored for primary care clinicians, orchestrated by Lee and colleagues, yielded discernible reductions in markers of job burnout, depression, anxiety, and

stress [46].

As a catalyst for adaptive and self-directed behaviours, mindfulness plays an affirmative role in work environments [7]. The mediating role of mindfulness in appraisal stress, underscored by prior research by Weinstein and colleagues, signifies its pivotal function [47]. The scholarship of Shapiro and associates [42] highlights how mindful practices can uphold fundamental needs, values, and motivation, tethered to heightened awareness of the present moment and circumvention of automatic thoughts.

Concomitantly, the significance of aligning personal values with the work context finds empirical support in its correlation with job satisfaction [48]. The ameliorative potential of mindfulness in confronting demanding tasks and work-induced stress has been observed to curtail turnover intentions [49]. Furthermore, as postulated by Lee and co-researchers, the positive nexus between mindfulness, the cultivation of a wholesome lifestyle, and elevated job satisfaction reinforces its multifaceted impact [46].

In the broader schema, a discernible connection emerges between positive coping mechanisms within the workplace and an elevated sense of job satisfaction [50]. Consequently, it becomes apparent that effective management of work-related stress is pivotal in bridging the relationship between mindfulness and job satisfaction. In this study, therefore, the following hypotheses can be highlighted:

H1: High levels of mindfulness are positively associated with higher levels of job satisfaction;

H2: High levels of mindfulness are positively associated with higher levels of work-related stress management, which, in turn, are associated with higher levels of job satisfaction.

The hypothesized mediation model is shown in Figure 1.

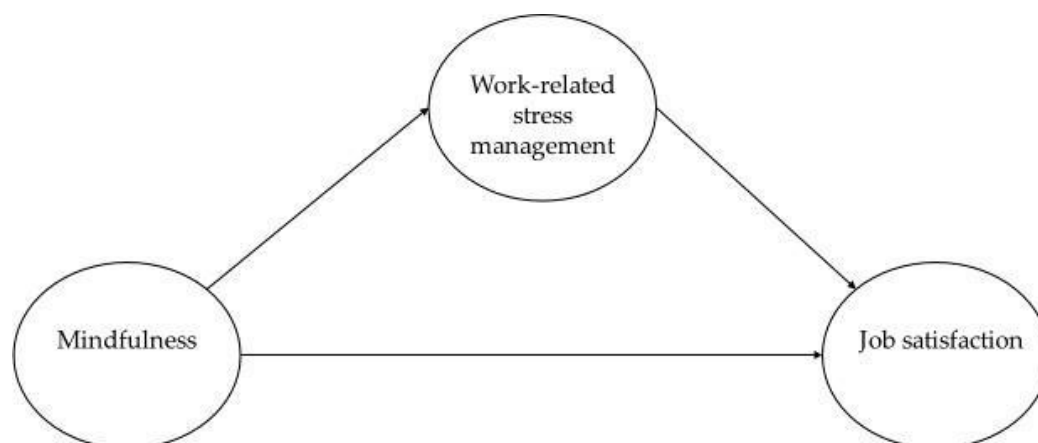


Figure 1. The hypothesized mediation model.

METHODS

Study procedure and data collection

In 2022, a comprehensive cross-sectional study was undertaken within 33 penitentiary centres in central Italy. Penitentiary centres with both sexes were selected; psychiatric penitentiary centres, juvenile centres, and prisons for drug addicts were excluded. The rationale behind choosing this specific year and the cross-sectional design was to examine the intricate relationships among mindfulness, job satisfaction, and work-related stress management within the context of correctional officers' daily experiences. The study enlisted the participation of 131 correctional officers, 72,5% of whom were female and of working age (from 18 to 65 years old), yielding an impressive response rate of 86%. Responses were collected remotely, and anonymity was guaranteed. In the present study, age is a factor that has not been deliberately collected to protect the anonymity of the participants. Instead, we have chosen to focus on variables such as years of service, as this approach helps to maintain the confidentiality of the individuals involved.

Ethical aspects

Every participant voluntarily consented to the study, a process meticulously aligned with the ethical principles outlined in the Declaration of Helsinki. The authorization from the Institutional Review Board of the local Ethics Committee was obtained.

Study measures

The quantification of mindfulness levels was achieved by implementing the *Five Facets Mindfulness Questionnaire-short form (FFMQ-SF)*, developed by Bohlmeijer and colleagues in 2011. This condensed instrument scrutinized five facets pertinent to mindfulness: observation, description, aware actions, non-judgmental inner experience, and non-reactivity. For instance, participants were prompted to respond to statements such as: "I am adept at articulating my emotional states." This abbreviated version, comprising 24 items, exhibited notable promise across clinical and nonclinical settings. The internal consistency of the FFMQ-SF was evaluated using Cronbach's alpha, which demonstrated a commendable value of 0.84.

The assessment of work-related stress management was facilitated by a subset of the *Organizational-Emotional Intelligence Questionnaire (ORG EIQ)*, developed by one of the authors of this study (Gabriele Giorgi) in 2013, an extensive 99-item instrument tailored to evaluate various dimensions of emotional intelligence within the occupational sphere. The specific dimension related to work-related stress management encompassed six items, focusing on gauging participants' strategies for effectively addressing challenges tied to their roles, responsibilities, and duties. The reliability of this subscale was indicated by a Cronbach's alpha value of 0.80.

A 5-item Likert scale was employed to gauge *job satisfaction*, offering participants a response continuum ranging from 1 (disagree) to 5 (agree). This scale synthesized elements from previous research, incorporating three items formulated by Hellgren, Sjöberg, and Sverke [51] alongside two items proposed by De Witte [52].

Data analysis

Following best practices, the IBM SPSS® Statistics Software (v. 25) was harnessed for meticulous data analysis. The initial steps encompassed generating descriptive statistics and correlating reliability coefficients through Cronbach's alpha values. Notably, the assessment of relationships among mindfulness, job satisfaction, and work-related stress management commenced with the calculation of Pearson's correlations.

A mediation analysis was employed to probe deeper into the hypothesized relationships, leveraging PROCESS 3.3 macro [12]. This mediation analysis technique capitalized on a bootstrap method involving 5,000 data samples, generating 95% bias-corrected confidence intervals. By employing this approach, the study effectively unveiled conditional models capable of elucidating direct and indirect effects between the variables under investigation. Notably, a path was deemed statistically significant if its associated 95% confidence interval (CI; adjusted bias) excluded zero.

RESULTS

Table 1 shows the characteristics of our sample. Based on independent variables, the mean comparison between groups revealed no significant differences in mindfulness ability.

Table 1. Characteristics of the study sample (*n* = 131).

Gender	(%)	<i>p</i>-value for the difference
Male	27,5	0.608
Female	72,5	
Region	(%)	
Abruzzo	34,4	0.725

Lazio	55	
Molise	9,2	
Marital status		(%)
Unmarried	18,3	0.081
Married	62,6	
Divorced	8,4	
Separate	2,3	
Partner	6,9	
Widower	1,5	
Education		(%)
Middle school	3	0.848
High school diploma	26	
Bachelor's degree	19,8	
Master's degree	26	
Specialization course	25,2	
Tenure		(%)
0 – 7 years	10,7	0.136
8 – 15 years	13,7	
16 – 23 years	24,5	
24 – 30 years	29	
More than 30 years	22,1	

Table 2 shows descriptive statistics, mean, standard deviation, Cronbach's alpha values and Pearson's correlations between the study variables ($n = 131$).

Table 2. Correlations between the study variables ($n = 131$).

Variable	1	2	3
1. Mindfulness			
2. Job Satisfaction	.30**		
3. Work-related stress management	.42**	.34**	
Mean	3,2	3,0	3,7
Standard Deviation	.45	.90	.82
Cronbach's alpha	.84	.90	.80

Note: ** $p < 0.01$. * $p < 0.05$

As shown in Table 2, a statistically significant correlation was found between mindfulness and job satisfaction ($r = .30$) and work-related stress management ($r = .42$). Similarly, mindfulness and work-related stress management are positively related ($r = .34$), as expected. A mediation analysis was performed to define the role of work-related stress management. Regarding the indirect effect, mindfulness significantly impacts work-related stress management [$\beta = .4219$; $SE = .1445$; $p < .001$; CI 95% (.4779 – 1.04)], which, in turn, shows a significant effect on job satisfaction [$\beta = .2658$; $SE = .0990$; $p < .003$; CI 95% (0.960 – 0.487)]. Moreover, mindfulness significantly affects job satisfaction [$\beta = .1121$; $SE = .0458$; CI 95% (.0318 - .21)]. further analysis did not show a significant relation between gender, level of education, and marital status in mindfulness intervention. Figure 2 shows the mediation model and the relationship between variables.

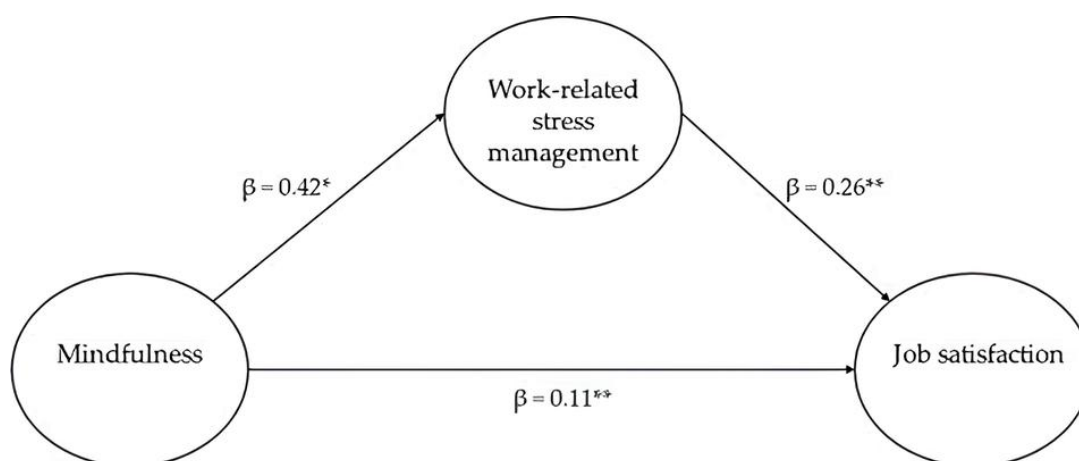


Figure 2. Mediation Model and the relationship between variables.

Note: The path weights in the graph were standardized. $^{**} p < 0.01$. $^* p < 0.05$.

DISCUSSION

The primary objective of this study was to explore the correlation between mindfulness levels within a work environment and job satisfaction while also examining the potential role of work-related stress management as a mediator. Moreover, this study contributed to the research stream on correctional contexts and emphasized the importance of mindfulness within the prison environment. The results confirmed our hypotheses and showed that mindfulness is positively associated with work-related stress management and job satisfaction. Moreover, mindfulness has a significant direct effect on job satisfaction. Therefore, the ability to handle stressful situations might be considered a mechanism in this relationship. This evidence aligns with existing literature that practising mindfulness reduces emotional exhaustion and increases job satisfaction [40].

As shown, in fact, by Lazarus and Folkman, during the coping process, the appraisal phase (primary appraisal) assumes a crucial role in categorizing an external event as unpleasant/pleasant. It influences workers' well-being [12,53]. This is also in line with Lock's definition of job satisfaction. As also demonstrated by Affective Event Theory, adverse events (stressful in this case) generate negative emotions that significantly influence job satisfaction [35]. In summary, mindfulness can benefit emotions and their regulation [39] and, therefore, the ability to manage stress [13]. Mindfulness also acts on the quality of attention paid to a given situation, thus impacting the cognitive evaluations [7] underlying stress tolerance and job satisfaction.

This supports the model examined in this research and the crucial role of work-related stress management as a mediator in the relationship between high levels of mindfulness and job satisfaction. Finally, proposing mindfulness techniques may be valuable for improving employees' positive responses in the workplace and reducing workers' perceived stress [54-61].

Study limitations and future directions

Despite all the precautions, the present study is not without limitations. Firstly, although a solid theoretical foundation supports our hypotheses, the current research followed a cross-sectional design that does not allow causal inferences on the relationships between the variables. Future research should employ longitudinal strategies to replicate these findings and show how mindfulness techniques may increase job satisfaction and how work-related stress may act as an underlying mechanism. A second limitation concerns the sampling technique. We used a non-probabilistic (i.e., convenience sampling), which does not allow for fully generalizing the results. Finally, the research did not consider additional variables that could influence the relationships in our framework, such as engagement and commitment.

Despite these limitations, this research contributes to the existing literature. It highlights how stress management skills play a crucial role in the relationship between the use of mindfulness in organizational contexts and increased job satisfaction. Existing literature has shown how mindfulness in organizational contexts improves well-being and job satisfaction [28], in line with our findings. In addition, we focused on the correctional context, showing how work-related stress management, job satisfaction, and mindfulness are part of a framework in which stress tolerance mediates the relationship between mindfulness levels and increased job satisfaction for prison staff [39].

Therefore, from a practical point of view, intervention and prevention programs should be extended to all organizational contexts to improve job satisfaction. Prevention programs should support employees in improving coping strategies and stress tolerance [28,62]. It would also be desirable to introduce mindfulness sessions as a stable activity within the corporate welfare package to increase job satisfaction and well-being. In addition, it would be helpful to propose organizational surveys to evaluate well-being, work-related stress, and resilience [42].

CONCLUSION

Most psychological approaches based on self-awareness aim to increase introspection, develop automatic thoughts and behavioural patterns, and learn to withdraw them by improving the understanding of the present moment [6,8,9,63,64].

In particular, many studies have correlated psychologically based mindfulness interventions with improvements in stress management and perceived well-being [13]. Individuals trained with psychological mindfulness approaches appear more capable of initiating and maintaining satisfying relationships [14]. From the emerging data, we can deduce that mindfulness correlates with stress tolerance and job satisfaction, as predicted by the previous analyses.

By comparing the studies examined in the previous paragraphs and our research results, it is possible to find mindfulness's beneficial effects and potential within social and work contexts.

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Data Availability Statement: Some or all data and models that support the findings of this study are available from the corresponding author, upon reasonable request.

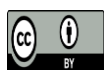
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