



EMOTIONAL INTELLIGENCE AND WORKPLACE  
AGGRESSION: A META-ANALYSIS

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**Abstract**

*Aggression and violence are of increasing concern to employees and employers. However, these issues have received limited research attention in scientific literature. In this paper, we report the findings of a meta-analysis investigating the relationship between emotional intelligence (EI) and aggressive workplace behaviors by focusing on the personal differences among aggressive employees. The results supported the hypothesis that EI is negatively associated with counterproductive work behaviors. The limitations and implications are discussed in terms of psychometric issues, differentiated approach of emotional intelligence constructs and organizational context.*

**Cuvinte cheie:** meta-analiză, inteligență emoțională, agresivitate, contraproductiv.

**Keywords:** meta-analysis, emotional intelligence, aggression, counterproductive.

## 1. INTRODUCTION

Organizations are a complex environment in terms of human relationships, as well as an open environment, which can be influenced in a direct or indirect way by many factors (economic, social, personal, etc.). Also, the employees' activity can be efficient as far as we know these factors and the way they can influence the organizational culture and the organizational environment. In order to achieve high performance, the climate should be a healthy and positive one. No organization wants to create a toxic climate. When the organizational climate develops on its own, without taking into account human relationships, and employees are not held accountable for the lack of manners and respect, the climate in any organization can be changed dramatically. Symptoms include lack of productivity, low morale, and increased absenteeism. Relations between employees represent a risk factor for aggressive behavior (Cameron et al., 1987).

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Depending on the situational and individual characteristics, the conflicts between employees can escalate, the effects reaching unmanageable levels. Employees' reactions can be really different even if the situation is the same. This is where personality traits and emotional intelligence levels are highlighted (Patel, 2011). Each of the constructs of emotional intelligence, as presented by Goleman in 1995 (self-knowledge, self-regulation, self-motivation, empathy, social skills), can influence the behavior of employees involved in that conflict. Aggressive behavior in the workplace is associated with negative consequences for the individual as well as for the organization. Among the most studied consequences we would like to emphasize the ones related to health and attitude for the people exposed to aggressive behavior in the workplace (Schatt & Kelloway, 2003). On the other hand, there are less studies which claim that aggression influences work behaviors leading to job performance. This lack of attention is striking when taking into account the central role of performance within organizational frameworks.

Statistics claim that a surprisingly number of employees were subjected to aggressive behavior (both from colleagues and people outside their organization), the most common form being verbal aggression (Parent-Thiron et al., 2007). Therefore, it is important for managers and organizations to understand the effects that aggressive behavior in the workplace has on performance and productivity.

## **2. WORKPLACE AGGRESSION AND EMOTIONAL INTELLIGENCE**

One of the aims of this study is to get a clear view on the concept of workplace aggression. As the interest in this phenomenon has increased over latest years, its operationalization became more and more difficult. For example, some authors describe it as a process in which a person tries to physically harm a coworker (O'Leary-Kelly et al. 1996). Neuman and Baron (1998) define workplace aggression as any form of behavior directed by one or more people to harm others in that workplace in ways that motivate victims to avoid them. This kind of doing harm is intentional and includes psychological as well as physical injury. Efforts to harm others in the organizational context vary from subtle and hidden actions to active confrontations, destruction of property and direct physical aggression (Barling, 1996; Robinson & Bennett, 1995). Forms of aggression in the workplace include: intimidation, rudeness, organizational behavior related to retaliation, emotional abuse and tyranny (Dupré & Barling, 2006).

In this study we will use the definition adopted by the European Commission (2002) for a better description of workplace aggressive behaviors: "incidents where persons are abused, threatened or assaulted in circumstances related to their work, involving an explicit or implicit challenge to their safety, wellbeing or health". These are the kinds of behaviors that are the subject of our analysis. We will focus on aggression manifested (under the preserve of different behaviors) by employees in the workplace in relation to their colleagues (either the same hierarchical level or bosses or subordinates). We will address individual factors that play an important

role in the manifestation of aggression and we will focus on those related to emotional intelligence.

With regard to emotional intelligence, we approached it from the perspective of the multiple constructs it includes (such as: empathy, social skills, self-regulation, etc.). There are studies that deal with it globally, as well as studies that treat each construct individually. One of the secondary objectives of our research is to highlight those components that have a higher association with aggressive behaviors in the organizational environment. One benefit of such an approach is to use these findings in future research where these constructs will be molded in order to mitigate conflicts between employees.

### **3. OBJECTIVES**

Our main objective is to investigate the association between emotional intelligence and aggression in the workplace by synthesizing the results of existing studies that use rigorous methodological designs and a series of relevant standardized tools. Another objective is to identify those skills that facilitate aggressive behavior and those that reduce its level, by underlying the direction of the association between them as well as the effect size variations. Based on this information, our scientific approach can go further by capturing in a methodological design the associations between different components of emotional intelligence and different aggressive behaviors in the organizational context. In addition to the objectives mentioned above, we would like explore the instruments that ensure greater effect size, as well as to identify variables that may play a moderator role.

Statistically, the procedure of meta-analysis consists in combining results from different studies that address a set of common assumptions. In its simplest form it is identified with the effect size, so that the weighted average could be the result of meta-analysis. Its results are a better estimate of the actual effect than those resulting from single studies. While classical studies focus on the significance of the results, the meta-analysis aims to determine the direction and magnitude of the effect. Modern statistical meta-analysis does more than combine the effect size for a number of studies. It can test if the results of the studies show a greater variation than expected due to participants sampling differences. Meta-analysis changes focus from simple to multiple studies. It emphasizes the practical importance of the effect size instead of statistical significance, as it usually happens in the individual studies.

### **4. METHOD**

#### **4.1. Data and sample**

The design of this research focuses on two variables: emotional intelligence (or constructs of emotional intelligence) and aggression (in various forms of behavioral manifestations)

Several inclusion criteria were used for a better selection of relevant studies. First of all, the sample consists of employees (regardless of age, level of education, socioeconomic status), the writing languages of the studies are English and Romanian. The publication type refers to articles from scientific journals and PhD thesis, due to their eligibility.

#### 4.2. Databases and keywords

Used databases: PsychInfo, Dissertation Abstract, Sagepub, Scopus, Academica, ProQuest, Summon, ScienceDirect, Emerald.

Keywords for English language: “emotional intelligence”, “workplace”, “deviant behavior”, “organization”, “aggress\*”, “verbal aggress\*”, “bully\*”, “mobbing”, “antisocial behavior”, counterproductive work behavior\*, assault, incivility, mistreatment, mobbing, retaliat\*.

Keywords for Romanian language: “inteligență emoțională”, “agresivitate”, “comportament deviant”, “autoreglare”, “abilități sociale”, “organizație”, “empatie”. Appropriate filters were used for each database in order to locate potentially controlled clinical studies. Search terms were modified to meet the requirements of each database regarding differences in fields and filters for studies identification. We used “\*” in order to allow the search for all words containing the letters preceding the asterisk.

Type of studies – correlation studies

Number of studies: 200.996 studies were identified containing at least one on the research variables. The number of studies containing the three elements in the title and the abstract (emotional intelligence / emotional intelligence constructs + aggression / forms of aggression + words describing the sample as consisting of employees), however, was much smaller – 1.248. From this multitude of studies, only some were retained: those containing a correlation model in the design with sample consisting of employees and an association between the two variables: emotional intelligence (or one of its components) and aggression (or one of its forms). This way, the number of filtered studies was reduced to 33 but, since not all of them had a research design that met the inclusion criteria, only 13 studies were kept (out of which 13 have employees as sample and two have students). We kept those two studies as well just for descriptive purpose, in order to observe the descriptive characteristics of statistical indicators. Also, we noted a distinction – 11 studies showed significant correlations between the level of emotional intelligence and aggression while in four of the studies this correlation is statistically insignificant. We kept these articles (out of which two are those with students in the samples) in order to analyze the possible causes that led to such a result, which helped us in setting future directions of research.

## 5. RESULTS

Our first objective addresses the association between emotional intelligence and aggression in the workplace. Below, a table with data extracted from the 11

studies is presented. Table 1 shows data regarding the authors' names, variable names and their instrumentation, sample size, the internal validity, correlation coefficients and significance level.

Table 1: Statistical indicators

	Author/ Year	Variables		N	r	p
		EI	Aggression			
1.	Austin (2006)	EI	Machiavelism	199	-0.33	0.010
2.	Austin (2006)	EI	Machiavelism	199	-0.22	0.010
3.	Berry (2007)	Emotional Stability	Interpersonal Deviance	2,318	-0.2	0.050
4.	Bracket (2002)	EI	Social Deviance	207	-0.27	0.001
5.	Bracket (2002)	EI	Social Deviance	207	-0.21	0.010
6.	Cote (2011)	Emotional Regulation	Machiavelism	252	-0.28	0.001
7.	Douglas (2001)	Self- Control	Incidence of a.b.	151	-0.57	0.050
8.	Jensen (2011)	Emotional Stability	CWB-I	517	-0.21	0.050
9.	Jung (2012)	EI	CWB	319	-0.55	0.010
10.	Kisamore (2010)	EI	CWB-C2	213	-0.17	0.050
11.	Restubog (2010)	Emotional Regulation	Deviant Behavior	279	-0.32	0.001

Note: EI = Emotional Intelligence; N = sample size; r = correlation coefficient; p = significance level

In order to move on to the statistical procedure specific to a meta-analysis, we used the software created by a team of researchers from the U.S. and UK led by Michael Borenstein - director of Biostat, specialized in software that aim at facilitating the process of meta-analysis. The program we used is called CMA (Comprehensive Meta Analysis) and it facilitates automatic calculation of relevant statistical parameters. The section for processing the intensity of correlations was used.

As types of meta-analysis, both fixed and random models were used. For the fixed model, the researcher assumes there is a theoretical effect equal for all studies and the differences that occur are caused by errors in sampling (small variations from one study to another, inherent in working with samples that limited the number of subjects drawn from a population). It is possible, however, that the effect is not consistent across the chosen population leading to presuming the existence of differences in sampling. This model assumes that the effects are distributed around an average while depending also on the variation between studies (Hunter & Schmidt, 1990). The value of the correlation coefficient for the fixed model is -0.259 (confidence interval between 0.233 - 0.285) while for the random model the value is -0.307 (0.224 – 0.385).

Table 2: Effect size (fixed vs random model)

Model	Study name	Statistics for each study				
		Correlation	Lower limit	Upper limit	Z-Value	p-Value
	Austin (2006)	-0.330	-0.440	-0.200	-4,800	0.000
	Austin (2006)	-0.220	-0.348	-0.083	-3,131	0.002
	Berry (2007)	-0.200	-0.239	-0.161	-9,754	0.000
	Bracket (2002)	-0.270	-0.392	-0.339	-3,954	0.000
	Bracket (2002)	-0.210	-0.337	-0.076	-3,045	0.002
	Cote (2011)	-0.280	-0.390	-0.162	-4,540	0.000
	Douglas (2001)	-0.570	-0.669	-0.451	-7,877	0.000
	Jensen (2011)	-0.201	-0.291	-0.126	-4,833	0.000
	Jung (2012)	-0.550	-0.622	-0.468	-10,993	0.000
	Kisamore (2010)	-0.170	-0.298	-0.036	-2,488	0.013
	Restubog (2010)	-0.320	-0.422	-0.210	-5,510	0.000
Fixed		-0.259	-0.285	-0.233	-18,427	0.000
Random		-0.307	-0.385	-0.224	-6,986	0.000

The dispersion caused by the differences between studies (Q) has a value of 76.756 . Together with the associated significance level (0.000) it leads us to conclude that there is a high level of heterogeneity between studies. The value of the standard error is 0.013, which means that there is a weak variation of the correlation values so we can trust its representativeness. This follows from the descriptive data as well, two of the studies being out of order (Douglas and Jung) reporting level of correlation higher than 0.5. If we eliminate these studies from the calculation, the result is as follows:  $Q = 9,221$  and  $I^2 = 13,246$ . It is clear in this situation that the two studies bring heterogeneity.

Table 4: heterogeneity

Model	Heterogeneity					Tau-squared			
	No. of studies	Q-val	df (Q)	P-val	I-sq	Tau-sq	Std. Error	Var.	Tau
Fixed	11	76.756	10	0.000	86.972	0.019	0.013	0.000	0.137
Random	11								

Furthermore, we want to emphasize those instruments which have greater internal validity. The main instruments for the measure of emotional intelligence used in this study are: MSCEIT, EQ-i and SREIT. Of these three, a high internal consistency belongs to MSCEIT ( $\alpha$  Cronbach = 0.91). The Mayer-Salovey Caruso Emotional Intelligence Test is one of the most popular measure for EI.

The test covers the four content areas of emotional intelligence: recognition of emotion, emotion integration into thought and thinking processes, emotional complexity and emotional regulation or emotion management (Mayer et al., 2000; Roberts et al., 2006). MSCEIT has demonstrated good reliability and reasonable

construct validity in different settings (Brackett & Mayer, 2003). The test has 141 items divided into eight sub groups (two for each of the content areas). Responses are given on a Likert scale or on a semantic differential scale to assess levels of accuracy for each answer given. The main criticism against the current version of MSCEIT focuses on two points. The first deals with the validity criterion of fairness . The second talks about the MSCEIT in intercultural context - some evidence suggests that the measure is vulnerable to cross-cultural variation (Tett et al., 2005).

Regarding the measures for aggression, greater internal consistency was demonstrated by the Fox and Spector scale which studies counterproductive behaviors at work ( $\alpha$  Cronbach = 0,94) (Jung, 2012) and the instrument called CWB-C used in the Kisamore's study ( $\alpha$  Cronbach = 0,86). Both instruments measure the same type of behavior. Counterproductive behaviors include abusive behavior towards others, physical and verbal aggression, making improper work intentionally sabotage, theft, absenteeism, delays, etc. These behaviors are a set of distinct acts that have common characteristics: they are intentional (not accidental) and harm or intend to harm the organization and/ or their stakeholders - customers, colleagues and supervisors (Spector and Fox, 2005).

As mentioned above, there were four studies showing no significant correlations between the research variables. An explanation of these results, brought by the researchers, comes from measurement errors and sampling. Equally important is the incremental validity. Therefore, a separate study of groups of men and women is suggested. The results show that women have a higher level of emotional intelligence while men a lower one. At the same time, men have a higher level of aggression than women. Another explanation for these results is given by the way in which instruments of measure of emotional intelligence are built. There are instruments that addresses intelligence as a mixed construct consisting of unrelated attributes. The authors suggest that they can be addressed individually.

## **6. CONCLUSIONS AND FUTURE DIRECTIONS**

Based on the reviewed studies, we can assume that negative emotions as well as low levels of self-control experienced by employees can occur when there is a low level of emotional intelligence. Employees with low levels of emotional intelligence may have a high level of counterproductive work behavior (CWB). Although the reported results were statistically significant, the correlation was not high. This raises the need to address the association between emotional intelligence and aggression as a complex phenomenon, taking into account the intermediate variables related to context, organization , personality traits. On the other hand, the approach of separated samples of men and women is justified due to the fact that differences have been reported between the two groups. Another suggestion for future analysis would be to highlight the differences between the various hierarchical levels (subordinates vs. managers). There are studies which state that

with age, emotional intelligence increases (Martin, 2013). This aspect is worth investigating. There is one more suggestion to make - to treat each scale of the emotional intelligence instruments separately, not as a general construct.

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## REZUMAT

*Agresivitatea și violența reprezintă o preocupare crescătoare pentru angajați și angajatori. Chiar și în acest context, acestea reprezintă o problemă care a atras puțină atenție în literatura de specialitate. În această lucrare, raportăm rezultatele obținute ca urmare a unei meta-analize prin intermediul căreia am investigat relația dintre inteligența emoțională (EI) și comportamente agresive la locul de muncă, concentrându-ne pe diferențele personale existente între angajații agresivi. Rezultatele au susținut ipoteza că EI este negativ asociată cu comportamente contraproductive. Limitările și implicațiile cercetărilor sunt discutate în termeni de probleme psihometrice, abordare diferențiată a constructelor inteligenței emoționale și a contextului organizațional.*