

Developing an instrument for measuring the level of employee toxicity

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ABSTRACT

Toxic employee behaviors inflict emotional distress on colleagues, negatively impacting their physical and mental well-being and diminishing their focus on work tasks. This study aims to identify and categorize latent toxicity within the workforce of public sector organizations. A mixed-methods (qualitative-quantitative) approach was employed. The qualitative phase utilized textual content analysis to explore the theoretical literature and supporting theories related to toxic behaviors. This informed the development of interview questions for expert elicitation. Thematic analysis was then applied to the interview data to extract key themes associated with toxic behaviors. A snowball sampling method was used to recruit 13 public sector experts with theoretical and empirical knowledge of toxic employee behaviors. Through interviews, initial model criteria and sub-criteria were identified. In the quantitative phase, content validity was assessed, leading to the refinement of the questionnaire and the removal of three sub-criteria that did not meet the established thresholds. This process resulted in the development of a tool to assess the nature and degree of employee toxic behavior. Analysis of the data ultimately revealed eight distinct categories of toxic behavior, ranging in severity: (1) nearly non-toxic behavior, (2) organochlorine-like toxicity (e.g., DDT), (3) strychnine-like toxicity, (4) asbestos-like toxicity, (5) neurotoxin-like toxicity, (6) nerve agent-like toxicity (e.g., Sarin), (7) mustard gas-like toxicity, and (8) VX-like (lethal agent) toxicity.

Keywords: Toxicity, Toxic Behavior, Toxic Personality, Employees, Public Sector Organizations.

Introduction

Modern organizations are considered integral parts of human life, and the crucial matter of individuals as employees, who are the main and key element of the organization, cannot be easily overlooked (Yao et al., 2022). Employees of any organization are considered the main agents of that organization's survival (Garg et al., 2023). This concept confirms that the organization, influenced by them, seeks to create added value and move towards achieving its goals and missions (Danaeifard et al., 2022). Behavioral diagnosis of employees, which occurs at different organizational levels (Garg, 2023), has been identified with a new phenomenon called "employees with toxic behavior." Toxic employees are defined as those who are motivated solely by personal interests (power, money, special positions) and through the use of illegal or unethical manipulation techniques, and who do not see their negative performance and efficiency (Alen et al., 2023).

Misconduct and destructive behaviors in organizations have existed in all eras and are an inseparable part that does not disappear from the organization with change and the passage of time, and should even be taken more seriously (Garg, 2023). The main framework in the abstract confrontation with the organization and explaining how organizational behavior is formed is norms (Lee et al., 2023). Behavioral diagnosis of employees at various organizational levels has been identified with a new phenomenon called "employees with toxic behavior" (Pour Safar & Afkaneh, 2021). Toxic organizational behaviors will result from dysfunctional behavior in the organization, which causes emotional pain and suffering in the organization (Saremi et al., 2020). Toxic behaviors in the organization, due to their importance in management, have attracted the attention of management researchers and specialists (Pavlo, 2018). Toxic employees, in general, do not conform to the behavioral patterns and norms of the organization. Toxic employees can be the cause of the emergence of toxic work environments in the organization (Hadavinejad, 2020).

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Toxic behavior refers to cruel, painful, and often violent and humiliating behavior towards individuals, and it endangers the safety and health of employees. The most important point is this very concept of the physical and mental health of the organization's members (Pour Safar & Afkaneh, 2020). In this regard, researchers have focused on the existence of personalities that have the potential to exhibit toxic behaviors and have differentiated between bright and dark personalities (Tuna et al., 2016). Personality traits influence misconduct and lead a person to exhibit toxic behaviors (Peryanati et al., 2021).

Toxic behavior of employees in public sector organizations consists of intentional behaviors that, with great intensity and depth, inflict serious harm on the individual, the organization, and employees, and lead to increased material and moral costs and a reduction of social capital in the organization. These types of behaviors, in contrast to other types of negative employee behaviors, have a greater degree of destruction, damage, and lethality (Sheikh al-Islami, 2023; Ghaed Amini et al., 2022). These behaviors cause the organization to be driven toward failure and lack of success, and it will not have the ability to attend to its affairs and goals (Anjum et al., 2018). Especially in public sector organizations, the psychological perspective of employees, their mood, and their type of behavior are very important because they play a significant role in the organization's performance, output, and satisfaction of clients (Badri et al., 2022). It can be said that if employees of public sector organizations have toxic and contaminated behaviors, they can probably inflict dangerous, wider, and undesirable effects on the government and the organization through each of the aforementioned behaviors (Garg et al., 2023).

According to research, approximately 33 to 75 percent of employees engage in at least one form of toxic and dysfunctional behavior. Therefore, as organizations, to improve the job performance of their employees, try to find the causes of these behaviors and, most importantly, develop programs and solutions to deal with or reduce these behaviors, finding the level of toxicity of their behavior and the aspect of toxicity of their behavior is of paramount importance (Poursafar & Afkaneh, 2021: 5). Despite the great importance of the issue of toxic employees and the negative consequences of their presence in public sector organizations, unfortunately, the research conducted in this regard clearly suffers from shortcomings and weaknesses in ambiguous research methods, statistical population, and the influence of personal opinions in this field. The vast majority of these studies focus on the toxic work environment and do not specifically focus on employees. Therefore, considering the gaps in previous research and the need for an instrument to measure the level of toxicity of employee behavior and to identify the direction of this level of toxicity, it is appropriate to, with careful monitoring of previous studies, provide an instrument for measuring the toxic behavior of employees in public sector organizations.

Literature review:

This research aims to develop an instrument for measuring the level of employee toxicity, based on a qualitative-quantitative study that carefully examines the personality aspects of employees. By explaining the dark aspects of organizational behavior, the toxic behavior of employees has been clarified, and it has been addressed what activities other authors have previously undertaken in this regard.

The dark side of organizational behavior:

Since the emergence and recognition of organizational behavior, employees have always been considered a positive resource in the organization (Tarakci et al., 2018), and in the past, most definitions also indicated the presence of positive aspects of organizational behavior (Naseer et al., 2019). Identifying the dark dimensions of behavior in the organization requires further investigation of the dark aspects of the organization, as has been repeatedly requested and pursued by various organizational behavior researchers (Ashforth, 2016; Conroy et al., 2017; Irshad & Bashir, 2020). Our study will focus on the dark side of organizational behavior and the multiple perspectives that exist regarding this dimension of organizational behavior, such as organizational misbehavior, aberrant behaviors, and deviant behaviors, to arrive at new perspectives on the toxic behavior of employees.

The dark side of organizational behavior refers to the elicitation of behaviors by some employees or a group of them that have negative effects on individuals within the organization, a group of individuals in the organization, or the organization itself (Rosander & Salin, 2023). Concerning the dark side of organizational behavior, two points should be mentioned: First, the dark side of behaviors will manifest as negative consequences. Second, behaviors that have a dark aspect are elicited in different ways and are carried out with intention (Salin & Hoel, 2020). What is shown in the dark side of organizational behavior is its high focus on causing harm and increasing costs for the employee and the organization (Singh et al., 2023). The dark side of organizational behavior is derived from the confrontation of positive aspects versus negative aspects of behavior in the organization, which can consciously have irreparable effects on the performance and productivity of the organization (Iqbal et al., 2022).

Organizational misbehavior

The most challenging type of behavior is defined as those behaviors that potentially seek to cause harm (Tastan, 2017). "These harmful behaviors in the workplace can be costly for organizations, employees, and customers" (Wu et al., 2022, p. 752). Organizational misbehavior is any voluntary activity of employees that violates organizational or social norms shared expectations, or social values and standard behavioral practices (Yao et al., 2022). The costs associated with the dark side of organizational behavior are of various types; for example, they may be real and measurable (such as "theft of organizational

property" (Yao et al., 2022, p. 194); "obvious administrative corruption" (Nezami et al., 2021, p. 40) or indirect (such as "loss of resources" (Ashna et al., 2019, p. 42), and "incorrect organizational decisions" (Lin et al., 2018, p. 12)).

Review of previous research

Ghaed Amini et al. (2022), using grounded theory, conducted research and found that causal conditions include (job and organizational attitudes, organizational factors, individual factors, managerial weakness, the existence of power networks, autocratic leadership, weak organizational resource management systems, and unhealthy physical and psychological work environment); intervening conditions (personality traits, self-serving behaviors, political factors, university environment); contextual conditions (weak organizational culture, cultural factors, social factors, political behavior of officials, unmet needs of employees); strategies (management of deviant behaviors, changing deviant behaviors, control of deviant behaviors); and consequences (increased organizational commitment, improvement of the university's situation, group consequences, cultural consequences, social consequences, strengthening organizational culture, strengthening cultural values) were identified. Nikmorad et al. (2022), using textual content analysis and Shannon entropy, conducted an analysis and found that the main dimensions of individual and organizational factors and the sub-dimensions of injustice, compensation and reward structure, work avoidance, insufficient supervision, surplus manpower, formal performance appraisal, lack of organizational support, weak laws, incompatibility, irresponsibility, dissatisfaction, lack of spirituality, and unethical leadership were identified. To prevent and control deviant work behaviors at the university level, managers and policymakers at different levels of the organization should emphasize the expansion of procedural and distributive justice in the organization, as well as continuous and careful monitoring of the performance of administrative staff. Sehat and Rahmatabadi (2021), using structural equation modeling analysis, concluded that the effects of organizational destructive behavior variables on customer satisfaction and trust, the effect of customer satisfaction on customer trust, and also the effect of customer satisfaction and trust on customer loyalty were significant. Ebrahimpour et al. (2020), based on a grounded theory approach, showed that the causal factors affecting the occurrence of deviant political behaviors are divided into three general categories: factors related to managers, factors related to employees, and factors related to customers. The central factors included the violation of the rights of organization members, the formation of destructive coalitions, the spread of Machiavellian culture, and the prevalence of harmful behaviors. The contextual factors were identified with indicators of structural context, job and communication characteristics, and performance evaluation mechanisms. Intervening factors were divided into three general categories: governmental-legal-judicial factors, social-cultural factors, and economic factors. Strategies for managing deviant political behaviors were presented in two general strategies: cultural strategies and executive strategies. Finally, the

consequences of managing deviant political behaviors were identified in two general categories: individual consequences and organizational consequences.

Garg et al. (2023) showed that a toxic workplace has a 45.8% impact on employees' intention to leave, and the significant effect of the appreciation variable on workplace toxicity and intention to leave as a mediator was confirmed. Singh et al. (2023) showed that if an employee experiences incivility in their workplace, friendship at work plays an active role in encouraging cynical behavior of the target employee towards their organization. Mahipalan (2023) concluded that there is a negative relationship between workplace toxicity and employees' psychological capital, and this study recommends institutionalizing an appreciation-based organization to reduce the impact of workplace bullying and uncivil behavior. Mawritz et al. (2023) showed that uncontrolled supervisor aggression and violence affect subordinates' self-esteem and cause more stress and tension in the workplace, and also that two-way and three-way interactions between supervisors and subordinates exist in the moral justifications that exist between them. Narayanan and Moon (2022) concluded that among cultural groups, a higher collectivist culture is associated with less participation in workplace deviance. In addition, when employees are more supported, a supportive culture was also identified as a moderating variable. The tendency towards collectivism is greater in India (not the United States). Interestingly, employees who are more supportive of individualism associated with organizational climate are more likely to engage in destructive deviations.

Materials and Methods

The present research is an applied descriptive-analytical study conducted in a qualitative-quantitative method. In the qualitative part, textual content analysis was used. The literature reviewed in this research included upstream documents and records, and articles and theses related to this field. The statistical population studied included all domestic and foreign research published in the field of destructive behaviors and supporting theories (whether quantitative, qualitative, or mixed). The time frame (domestic studies in the period 2012-2024 and foreign studies in the period 2012-2024) was used, and textual content analysis and coding were used to extract the indicators. To ensure the suitability of the instrument obtained at the end of the qualitative method, the validity and reliability of the qualitative data extracted from the previous literature were examined. A careful examination of the four factors of Lincoln and Guba was carried out. The indicators of credibility, transferability, confirmability, and dependability were confirmed by considering long-term contact with qualified experts, continuous observation, examining various aspects of opinions and exchanging views with them, mechanically recording opinions, repeatedly reviewing these opinions, and careful coding. Finally, the qualitative reliability of the opinions was confirmed by calculating Cohen's Kappa coefficient.

After extracting the concepts related to the dark behaviors of employees, these results were provided to experts, and interviews were conducted with them in the field of toxic employee behaviors. Using the qualitative method of thematic analysis, related themes were extracted from the expert interviews. Sampling was conducted in a purposeful and theoretical manner, and the sample size was determined during the work, in such a way that sampling continued until data saturation was achieved. That is, the researcher concluded that the new data were a repetition of the previous data, and no new conceptual information was obtained. The sampling method was snowball sampling. The interviewees, the target population, were 13 experts who had been active for years in fields related to organizational behavior and toxic behaviors and were also managers and supervisors of public sector organizations. Among these individuals, 2 were women and 11 were men, who were in the age range of 20 to 60 years. Three of them had master's degrees, one had a post-doctoral degree, and the rest had doctoral degrees.

Finally, in the quantitative phase, to present the model, the obtained data for final confirmation of the content validity of the obtained instrument, Lawshe's coefficients were calculated, and the reliability value was confirmed by calculating Cronbach's alpha coefficient. After examining the content validity and determining the final indicators, a model for measuring the level of employee toxicity and the direction of this toxicity was achieved. Based on this, by determining each of the indicators of

toxicity, the level of toxicity of employee behavior is determined.

Results and Discussion

To obtain the relevant criteria and sub-criteria, using the qualitative method of textual content analysis, the components of toxic employee behavior were extracted. Since toxic employee behavior was not specifically mentioned in the articles, to extract the initial components, dark behaviors in the articles were examined, and indicators related to them were extracted. For this purpose, initially, using the search terms "destructive behavior," "aberrant behavior," "deviant behavior," "unproductive behavior," and "counterproductive behavior" in Persian, and the English terms "destructive behavior," "counterproductive work behavior," "deviant behavior," "unproductive behavior," and "counterproductive behavior," 337 articles on the subject were extracted. Of these, 89 articles were removed after a careful study of their subject. 248 articles were removed after studying their abstracts. 72 articles were rejected using the number of references from the abstract perspective, and 111 articles were removed after reading the text of the article. 62 articles were considered as articles that were coded. The stages of selecting the checklist of the studies studied from the selected databases are shown in Fig. 1.

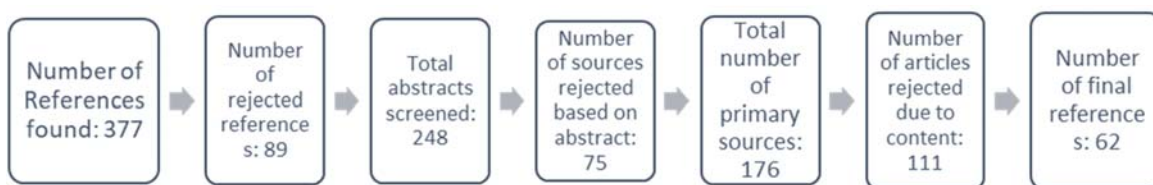


Figure 1. Steps to select a checklist of articles to be studied from selected databases

Based on the studies conducted, the code of the remaining articles is shown in Tab. 1:

Table 1. Content analysis of references

Article code	Author-year	Article code	Author-year
1	Ghaed Imani Haruni, Ebrahimzadeh Dastjerdi, Ebrahimpour, 2022	32	Shojaei, Sadeghi, Dankoob, 2016
2	Khodayari and Ghamkhari, 2021	33	Gholipour, Bayat, Bad, 2016
3	Ahmadi Alvar, Feiz, Modarresi, 2021	34	Amini, Moghimi, 2016
4	Eidipour, Yousefi, Zardoshtian, Eidi, 2020	35	Hadavinejad and Roostaei, 2016
5	Rajabi Farjad, Nozan, Jalal Mohammadi, 2020	36	Heydari Gorji, Janabi, Yazdani Cherati, Jafari, 2015
6	Halimi, 2021	37	Satoorian et al, 2015
7	Hassanpour, Jafarinaia, Vakili, Mahzabi, 2020	38	Golparvar and Qureshi, 2015
8	Hassanpour, Jafarinaia, Vakili, Mahzabi, 2020	39	Golparvar, Waseghi and Ashja, 2014
9	Abdollahi Gadello and Kashef, 2020	40	Hadizadeh Moghadam, Rezaeian, Tabarsa, Ramin Mehr, 2014
10	Mohebi and Islami, 2020	41	Arshadi, Piriaci, Zare, 2012
11	Zakipour, Farrokh Seresht, Taghi Pourian, Aghajani, 2020	42	Salmani and Radmand, 2009
12	Raeisi and Nastizaei, 2019	43	Peltzer et al., 2024
13	Ajami and Dadfar, 2019	44	Tefulin et al., 2023
14	Shol, Damghanian, Rastegar, Danaeifard, Azar, 2019	45	Rasool et al., 2022
15	Tolaei, Mahmoudi, Khodadadian, 2019	46	Chen et al., 2021
16	Ashena, Abbas Pour, Dehqanan, Haghighi Kaffash, 2019	47	Pariyanti et al., 2021

17	Saremi, Mogheli, Sarlak, Kamani, 2019	48	Saxena et al., 2020
18	Hakimi, 2019	49	Michalak & Ashkanasy, 2020
19	Khorasani, Rahimnia, Malekzadeh, Mortazavi, 2019	50	Yu et al., 2020
20	Sadeghi, Mogheli, Sarlak, Hour, 2015	51	Lata & Chaudhary, 2020
21	Salimi, Mehrali Tabar Firuzjaei, Najarpourian, Zia al-Dini, 2018	52	Rasool et al., 2019
22	Asadzadeh & Hadavinejad, 2018	53	Tuna et al., 2019
23	Bakhtiari & Hadavinejad, 2018	54	Kasalak, 2019
24	Piri & Mousavi, 2018	55	Anjum et al., 2018
25	Yasini, Shiri, Moradikia, 2018	56	Baba Abugre, 2018
26	Babaei Aqbalagh & Sattari Ardebili, 2018	57	Tastan, 2017
27	Foruzandeh and Tavakoli, 2018	58	Clark & Walsh, 2018
28	Ghaffari, Ahmadi, Nia Yahya, 2018	59	Tuna et al., 2016
29	Fathollahi, Pour Aghajan Hosseini, 2017	60	Clark et al., 2015
30	Feizabadi, Taherabadi and Khairollahi, 2017	61	Hager et al., 2015
31	Hadavinejad & Asadadeh, 2017	62	Yildtza & Alpkan, 2015

The final components were extracted from the text of these articles. According to the codes presented in Table 1, the

components of dark employee behavior are presented as the final components of the article in Tab. 2.

Table 2. Final components extracted from the texts of previous articles

Primary criterion	Primary sub-criteria and references
Personality traits	Resentment (1, 4, 52, 3, 75, 32, 6, 22, 23, 71, 59)/ Narcissism (41, 51, 53, 17, 26, 70, 33)/ Neuroticism (4, 24, 23, 26, 17, 66, 61)/ Violence (22, 23, 38, 14, 56, 2, 38, 8, 47, 43, 44)/ Bullying (4, 75, 77, 63, 26, 6, 51, 22, 37, 31, 66, 1, 17, 67)/ Evil (1, 53, 54, 10, 22, 46, 73, 65, 51, 38, 43, 44)/ Self-righteousness (27, 1, 4, 22, 37, 57, 52, 49, 29, 7, 19, 32)/ Machiavellian (14, 17, 26, 40, 25, 26, 12, 74)/ Snitch (54, 17, 47, 15, 23, 35)/ Hypocrisy (26, 17, 60, 4, 23, 7, 37)/ Vengeful (34, 17, 7, 46, 24)/ Aggressive (39, 21, 36, 3, 17, 43, 22, 37, 77, 65, 10, 26, 17, 45, 38, 2)/ Autocratic (17, 1, 54, 26, 2, 32), disorderly (4, 35)/ Depressed and inactive (22, 39, 44)/ Tendency to seek power (72, 58, 46)/ Unbalanced personality (41, 23) / Inconsistent (13) / Tendency to disintegrate (19, 7, 55) / Instability (66, 31, 39)
Suspicious attitude	Hard-heartedness (22, 23, 38, 14, 56, 2) / Lack of regret and remorse (56, 30) / Low sense of belonging (34, 76, 40) / capriciousness (48) / Interpersonal conflict (26, 22, 39, 5) / Lack of empathy (1, 54, 51, 73) / Backbiting (14, 49, 8) / Belief in luck (62)
Poor perception	Lack of situational awareness (14, 46, 31)/ Oversimplification (20, 36, 64)/ Escape from self-control (17, 33, 12)/ Inability to perceive reality (27, 22, 41, 15)
Motive for collusion	Breach of promise (23, 38, 14) / Betrayal (1, 17, 8, 57, 54, 47, 66, 5, 9) / Lying (48, 40, 23, 37, 41, 47, 50, 1, 4, 17) / Sabotage of a colleague (17, 8, 26, 14, 37, 22, 18, 39) / Lawlessness (1, 22, 17, 74) / Sabotage of equipment (26, 48, 12, 15, 54) / Theft during colleagues' working hours (56, 27, 37)
Social rejection	Absenteeism (33, 25) / Early resignation (67, 28, 17, 20) / Isolationism (49, 39, 42) / Divisiveness (40, 33) / Lack of confidentiality (57, 14) / Lack of sense of belonging (36, 35, 68) / Hiding information affecting employee performance (69) / Ignoring colleagues' opinions and views (71, 14, 2, 22, 22, 1) / Not recognizing colleagues (71, 49) / Making excuses (49, 54) / Introversion (50, 41)

The Cohen's Kappa index value was obtained as 0.819, which was evaluated as a desirable value. Since every toxic behavior can be a dark behavior, but not every destructive behavior is a toxic behavior, thematic analysis using expert interviews was used to extract the final components of toxic employee behavior. It should be noted that the information obtained from Table 2 was provided to the experts. Step Two: Since there has not been precise research in the field of toxic employee behaviors, the findings from the first step represent the dark behaviors of employees, and the results of the first section can only be considered as a guide to present to the experts, so that, with a background of previous studies, themes related to the toxic behaviors of employees can be extracted. In this step, a

qualitative study of thematic analysis was conducted. The purpose of this stage is to answer the question of what are the components and indicators related to the structure (content) related to the toxic behaviors of employees. To extract and identify the components and indicators related to the toxic behaviors of employees, the thematic analysis method was used. In this part of the research, 13 experts in behavioral sciences were interviewed, and in the interviews, the data reached saturation. In this research, the point of data saturation was completely tangible by the researcher. Sampling continued until the information obtained from the final samples could no longer add new information to the collected information. The results of the interviews are as follows, presented in Tab. 3.

Table 3. Explanation of the final themes of the employee behavior toxicity measurement tool

Sub-themes (organizing themes)	Basic theme(s) in the initial form	Basic theme(s) in modified form	Semantic phrase	Interviewee code	CVI>0.54
Emotional	Increased suffering	Suffering	Hurting others by manipulating colleagues' emotions	P6-P1	0.636
	Creating a contrasting feeling	Creating conflicting feelings in people	Having different behaviors	P3-P9	0.818
	Sexism	Sexist and instrumental views	Superficial and casual views of the opposite sex	P4-P5	0.999
	Lack of empathy	Lack of empathy	Ruthlessness and indifference to the feelings of colleagues	P10	0.818
	Behavioral motivation	Obsessive self-importance	Creating tension in the organization to attract the attention of others and the desire for reciprocal behavior	P1-P8	0.999
	Pent-up anger	Pent-up anger	Long-lasting suppressed anger	P4	0.636
	Slander atmosphere	Forcibly exposing others to foul language and swearing	Obsessive and seemingly humorous verbal communication and use of swear words	P3-P2	0.818
	Distrust of the organization	The prevalence of distrust	Devaluation of the organization's reputation	P7-P8	0.636
	Incapable of emotions	Inability to express emotions	Self-censorship and fear of expressing opinions due to rejection	P2-P1	0.64
	Angerism	Pushing people to engage in violent and dangerous behavior	Not showing emotions and holding onto negative emotions and self-pity	P5	0.999
	Diminishing a sense of stability from others	Hurting the souls and minds of others	The tendency towards situational and hypocritical behaviors	P1-P5	0.636
	Disorder	Disorganization in decision-making	The presence of behavioral conflict	P7-P9	0.818
	Lack of focus	Lack of focus on activities	Having different behaviors	P2-P13	0.636
	Cognitive	Mental confusion	Preoccupation and rumination	Excessive preoccupation with matters that are often different from the organization's goals	P4
Momentary decisions		Momentary decision-making	Ruthlessness and indifference to the feelings of colleagues	P3-P1	0.671
Escape from the solution		Inability to solve problems	Creating tension in the organization to attract the attention of others and the desire for reciprocal behavior	P10	0.831
Weakness in understanding topics		Weakness in understanding sensitive job positions and situations	Inability to properly understand issues related to the organization	P4-P13	0.671
Mood swings		Mood swings	Obsessive and seemingly humorous verbal communication and use of swear words	P2-P9	0.636
Misunderstanding		Misunderstanding	Misperception of issues and inability to understand reality	P8-P10	0.831
Inverted perception of reality		Stagnation	Self-censorship and fear of expressing opinions due to rejection	P2-P6	0.831
Lack of boundaries in behavior		Lack of behavioral boundaries	Imbalance in behavior, instability, and tendency to collapse	P7-91	0.64
Behavioral conflict		High conflicts	The tendency towards situational and hypocritical behaviors	P9	0.818
Lack of effort in advancing goals		Lack of effort to advance the organization's goals	Lack of accountability for the organization's mission and goals and perfunctory behaviors	P1-P7	0.999
Dodging responsibility			Intentional neglect of duty	P3-P1-P6	0.501
Functional	Indifference at work	Indifference at work and deliberate reduction in efficiency	Attempting to eliminate the right and expert employees	P4-P6	0.636
	Failure to observe attendance	Failure to observe attendance (absenteeism)	Making excuses, factitious disorder, and expressing family problems	P2-P3	0.617

Being against the goals of the organization	Intentional disruption of colleagues' activities and irreparable and damaging disruptions to the organization's resources	P10-P1	0.03
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As shown in Tab. 3, the themes of toxic employee behaviors have been identified. To confirm the content validity of the indicators obtained from the theme analysis finalize the indicators for the questionnaire, and obtain a suitable instrument for measuring the toxicity of toxic employee behaviors, Lawshe's coefficients were first calculated, and in this process, two themes from the functional themes were removed.

By extracting the indicators and final dimensions of toxic behavior in Table 2, it can be summarized that the dimensions of toxic behavior include three dimensions:

1. Emotional Dimension
2. Cognitive Dimension
3. Functional Dimension

Now, based on the fact that a 5-point Likert scale (strongly disagree, disagree, neutral, agree, and strongly agree) was used for scoring in the questionnaire instrument, for the emotional

and cognitive dimensions with 11 questions, considering the minimum, maximum, and midpoint scores, below score 3 (less than 33) and above score 3 (above 33) were considered. However, for the functional dimension with 3 questions, considering the minimum, maximum, and midpoint scores, below score 3 (less than 9) and above score 3 (above 9) were considered. Now, considering (the emotional dimension range, cognitive dimension range, and functional dimension range), the range of each can be determined. According to the characteristics of each dimension and their indicators, based on the behaviors that occur in the desired category of individuals and the equivalence of these behaviors with the function of existing toxins, naming was done. It should be noted that in the abbreviated symbol, only factors that have the maximum range of that dimension are mentioned, and this naming is shown in abbreviated form in Tab. 4.

Table 4. Naming the employees toxic behaviors

Indicators' range	Abbreviation	Toxic behavior	Indicators' range	Abbreviation	Toxic behavior
(< 9, < 33, < 33)	—	nearly non-toxic behavior	(> 9, > 33, < 33)	EC	neurotoxin-like toxicity
(< 9, < 33, > 33)	E	organochlorine-like toxicity (e.g., DDT)	(> 9, < 33, > 33)	EF	nerve agent-like toxicity (e.g., Sarin)
(< 9, > 33, < 33)	C	strychnine-like toxicity	(< 9, > 33, > 33)	CF	mustard gas-like toxicity
(> 9, < 33, < 33)	F	asbestos-like toxicity	(> 9, > 33, > 33)	ECF	VX-like (lethal agent) toxicity

Conclusion

The present study aimed to provide an instrument to measure the level of employee toxicity. Toxic behavior of employees in public sector organizations consists of intentional behaviors that, with great intensity and depth, inflict serious harm on the individual, the organization, and employees, and lead to increased material and moral costs and a reduction of social capital in the organization. These types of behaviors, in contrast to other types of negative employee behaviors, have a greater degree of destruction, damage, and lethality. The phenomenon of toxic employee behavior, as the central phenomenon, includes three categories of characteristics: emotional, cognitive, and functional. Emotional characteristics, which are usually in the section of understanding feelings and emotions, include issues that are mostly in the individual and group domains. For example, in most of the interviews conducted, the existence of suffering, deep pain, and lethality caused by toxic behavior was mentioned, and the extent of psychological involvement was raised as the main issue in the phenomenon of toxic behavior, which forms the concept and conceptual basis of toxic employee behavior in the organization. These behaviors, due to their contaminated nature, will affect any environment they enter, immediately or gradually. Cognitive characteristics, which

include lack of focus on activities, mood swings, disarray in decision-making, weakness in understanding sensitive work issues and situations, lack of behavioral boundaries, and stagnation, are issues that are considered in the process of forming behavior and actions and reactions. Therefore, toxic behaviors are amplified due to the individual's lack of knowledge of themselves and their surroundings, and as a result, the entire organization is affected by it. In functional characteristics, the most prominent of which is inefficiency, and includes the employee's lack of effort in advancing the affairs and mission of the organization to damage and destroy, the function of toxic behaviors in the organization by the employee will be in direct opposition to the success and health of the organization. Toxic behavior, in a sense, is a destructive and conscious action that seeks to achieve its goals by using causticity and pain. Employees with these types of behaviors, by choosing toxic strategies that are evident in their specific behaviors, target the health of the organization and other employees, or both. It should be noted that due to the diversity of organizations and the culture and administrative climate in each region, the application of these behaviors will be different. Sometimes, some of these behaviors, due to being common and frequent, are reduced to a common administrative tactic that penetrates deep into the organization

over time and gradually replaces healthy behaviors with dangerous behavioral patterns.

Furthermore, to determine the aspect of toxicity of the toxic personality of employees in public sector organizations, the following types were identified. It should be noted that in the naming, the similarity of the functional aspect of toxins and the manner of behavior in the model extracted from the qualitative section was used. Nearly non-toxic behavior was extracted from responding to the dimensions of toxic employee behavior. Based on the supporting components, this type of personality can be defined as having traits that can be in harmony with existing toxicity and exhibit toxic behaviors depending on the time and place but usually has a low level of toxicity. Behavior with organochlorine-like toxicity (e.g., D.D.T.) has anti-productive and self-superior behavior. Just as organochlorines found their place among fertilizers but gradually caused disruption, employees with this behavior also lead to organizational failure and lack of organizational success, as they refrain from advancing the organization's goals with anti-productive behaviors and self-superior attitudes, and try to shirk work with bullying behaviors. Behavior with strychnine-like toxicity stems from excessive pessimism and suspicious attitudes toward others and the organization. Like strychnine, which is colorless and odorless, and was known for years as a pesticide and helper to farmers, but after a while, its toxicity was revealed (Patocka et al., 2020). This type of toxic personality, due to mental and emotional insecurities, is constantly role-playing and interacts suspiciously with their surroundings, and can be among the people who can inflict a lot of damage on the organization's members. Asbestos-like toxicity, like asbestos, initially presents itself as a very useful, desirable, and versatile material, and, like asbestos, quickly spreads everywhere and after a while gradually poisons the space in which it is located (Thives et al., 2022). It has traits that show him/her to be a very cunning and divisive person, and because they live in a polluted intellectual space, they exhibit behaviors that can maintain or improve their position in the organization. Therefore, they will do anything to achieve this goal. Neurotoxin-like toxicity targets their own and others' feelings and emotions. Like neurotoxin, it directs its effects to the nervous system of the organization (Rho et al., 2021). Individuals with this type of behavior contaminate the organization's atmosphere with painful and hurtful behaviors and try to advance their goals through humiliation, ridicule, injustice, divisiveness, and backstabbing. Nerve agent-like toxicity (Sarin) is more likely to engage in physical and psychological abuse. Like Sarin gas, which causes severe harassment including upset stomach, nausea, diarrhea, and vision problems, and immediately afterward, muscle contractions, seizures, and possibly paralysis and suffocation (Jett et al., 2020). This behavior also exhibits behaviors with the intention of physical and psychological abuse. Most of the behaviors of these employees are accompanied by violence and tyranny, and they enjoy the pain and suffering of others and try to remove people from their path. In Mustard gas-like toxicity, destruction will be the hallmark of the behaviors. This behavior is like its toxin name, which is a chemical weapon

and has destructive and long-term effects on the skin, eyes, respiratory system, and digestive system (Sarabadani et al., 2012). The behavior of toxic employees is one who considers the only way to succeed and advance their goals to be destruction, either of the individual or the organization. They exhibit destructive behaviors to destroy and assassinate the personality, property, resources, credibility, and goodness of the organization. VX-like toxicity, like VX toxin, which is man-made (Schaefer et al., 2024), engages in toxic behavior consciously and purposefully. They are at the highest level of toxicity and have a set of traits that lead to toxic behaviors, including the destruction of the individual, other employees, and the organization. This toxic personality is very contaminated, and the rate of transmission of this toxicity is also high.

Managers are advised that, when identifying the phenomenon of toxic behaviors, they should try to consider all dimensions of toxic behaviors, including: "lack of behavior within the defined framework, lack of professional competence, weakness in integrity and transparency in the job, weakness in observing laws and law evasion, intentional emotional and ethical norm-breaking, failure to observe daily and monthly attendance, deviation from prevailing work goals and regulations, lack of decision-making power, instability in communication and a tendency towards deviant communication, inability to perform group and teamwork, the prevalence of an atmosphere of silence and fear, failure to observe job justice and meritocracy, excessive tolerance of mental and psychological suffering, extreme despair, indifference to the fate of the organization, a tendency to destroy and use others as a ladder, and a fondness for spreading rumors." They should try to measure, monitor, and track these concepts, instances, and dimensions fully in their organizations to be aware of the changes and transformations in the behavior of their organization's human resources.

It is recommended that managers if they want to prevent the occurrence of toxic behaviors in their organization, should guide their actions and efforts in the right direction by considering both proactive and reactive approaches. In the proactive approach, it is recommended that managers establish a special executive and research structure for this approach in the main centers for human resource decision-making in the organization, to facilitate timely understanding and use of all dimensions of the conceptual model. In this way, a committee called the "Committee for Identifying and Addressing Toxic Behaviors in the Organization" should be formed to identify key stakeholders, define the purpose and objectives of the committee, determine the roles and responsibilities of the committee, create a framework or guidelines, provide training and resources, establish reporting mechanisms, hold regular meetings, review reported incidents, take appropriate action, and monitor and evaluate progress. Based on the results of the initial actions, behavior improvement projects should be defined and implemented, similar to organizational vaccination and immunization. In the reactive approach, it is recommended that managers take actions in the field of neutralization and corrective action. Remedial actions to treat the contamination caused by toxicity must be timely and

efficient. This can be achieved by adopting strategies such as establishing clear and transparent behavioral expectations, providing regular feedback, offering coaching and guidance, encouraging open communication, implementing a confidential reporting system, training managers in conflict resolution and effective communication, identifying positive behaviors, and rewarding them, fostering a culture of accountability, encouraging self-reflection and personal growth, and seeking professional help if necessary.

It is suggested that researchers conduct research in the private sector to provide the possibility of comparative comparison. This will create a broader understanding of the concept of toxic employee behaviors. Longitudinal studies should be considered. Toxic behaviors can be complex and may change over time. Longitudinal studies can help understand the dynamic nature of toxic behaviors and identify any patterns or trends. As mentioned in the research literature, the concept of toxic employee behaviors and its impact on individuals and organizations can contribute significantly to explaining many organizational phenomena from a micro perspective, such as organizational rebellion, organizational silence, and organizational indifference, and from a macro perspective, on participatory management and also human resource management, such as performance appraisal, and so on. These factors have been largely neglected, to the extent that the absence of fundamental studies to discover new dimensions of this concept is quite evident.

The limitations of the present research include: the difficulty of assessing the construct of toxic employee behaviors due to the novelty of the topic; the difficulty of gaining the trust of individuals to participate in qualitative interviews due to fear of the consequences of toxic behaviors; the reluctance of managers to distribute the toxic employee behaviors questionnaire in their organizations; the lack of cooperation from some members of the statistical population in distributing, completing, and collecting questionnaires; the scarcity of domestic and foreign research on toxic employee behaviors; and the lack of attention of members of the statistical population to research due to the absence of a research culture, especially in the public sector.

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Ethics statement

This study was conducted in accordance with the ethical principles of the Declaration of Helsinki. The research protocol, including the procedures for data collection and analysis, was reviewed and approved by senior faculty members of the Islamic Azad University. Participation in this study was entirely voluntary, and all participants provided informed consent prior to the interviews. Confidentiality and anonymity of responses were ensured through coding and the removal of any identifying information. No personal or sensitive data were disclosed, and participants retained the right to withdraw from the study at any stage without any consequences. The use of this article is permitted for all researchers, provided that proper credit is given to the authors.

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