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Perpetrator Workplace Aggression: Development of a Perpetrator Aggression Scale (PAS)

Md Rashedul Islam
Wright State University

PERPETRATOR WORKPLACE AGGRESSION: DEVELOPMENT OF A PERPETRATOR

AGGRESSION SCALE (PAS)

A dissertation submitted in partial fulfillment of the

requirements for the degree of

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By

MD RASHEDUL ISLAM

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I HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER MY SUPERVISION BY <u>Md Rashedul Islam</u> ENTITLED <u>Perpetrator Workplace Aggression: Development of a Perpetrator Aggression Scale (PAS)</u> BE ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF <u>Doctor of Philosophy</u>.

Nathan A. Bowling, Ph.D.
Dissertation Director

Scott N. J. Watamaniuk, Ph.D.
Graduate Program Director

Debra Steele-Johnson, Ph.D.
Chair, Department of Psychology

Barry Milligan, Ph.D.
Vice Provost for Academic Affairs
Dean, Graduate School

Committee on Final Examination

(Nathan A. Bowling, Ph.D.)

(Brian D. Lyons, Ph.D.)

(Corey E. Miller, Ph.D.)

(David M. LaHuis, Ph.D.)

ABSTRACT

Islam, Md Rashedul. Ph.D., Department of Psychology, Wright State University, 2022. Perpetrator Workplace Aggression: Development of a Perpetrator Aggression Scale (PAS)

Perpetrator workplace aggression has always been considered as a uni-dimensional construct from the uni-dimensional perspective. The most popular and widely used scale, interpersonal deviance scale (IDS; Bennett & Robinson, 2000), to assess perpetrator workplace aggression has only seven items (i.e., seven content areas), which lacks a high level of content-related and construct-related validity. Recently, researchers have suggested that perpetrator workplace aggression may be a construct with a general factor at the top (Sackett & DeVore, 2001); however, this general factor can be less clear for a more complex model (Marcus et al., 2016). Using three samples (N = 271, 337, & 264), this research found that perpetrator workplace aggression was also a uni-dimensional construct from the multi-dimensional perspective, the general factor was very clear for a complex model, and developed a new scale with a higher level of content-related (i.e., 24 different content areas of perpetrator workplace aggression) and construct-related validity (by developing a large nomological network). In addition to a higher level of content-related and construct-related validity, the new scale showed a higher level of internal consistency and substantive validity. Hence, I recommend that researchers and practitioners use this new scale in future when assessing perpetrator workplace aggression.

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Introduction

Workplace aggression, an alarming issue for researchers and organizations, has received much more attention for past three decades. Theoretically, there are three categories of causes for workplace aggression: (1) characteristics of the work environment, (2) the perpetrator, and (3) the victim (Bowling & Beehr, 2006). However, much of the research on workplace aggression has taken two different perspectives- the perspectives of the victim and the perspectives of the perpetrator. The perspectives of the victim refer to the phenomenon when employees experience workplace aggressive behaviors from others at work (Duffy et al., 2002; Morris, 1996; Rayner, 1997), while the perspectives of the perpetrator refer to the phenomenon when employees show their workplace aggressive behaviors to others at work (Aquino et al., 2001; Bennett & Robinson, 2000; Skarlicki & Folger, 1997), which was the focus of this study.

Much research from the perspectives of perpetrator generally treats workplace aggression as a uni-dimensional construct (e.g., Bennett & Robinson, 2000; Spector et al., 2005). Sackett and DeVore (2001) suggested that counterproductive work behavior (CWB; perpetrator workplace aggression is one type of CWB) may be a construct with a "general factor" concept. Like Marcus et al. (2002), Marcus et al. (2016) also found that a "general factor" underlies all acts of counterproductive work behavior (CWB), which is another support for considering perpetrator workplace aggression as a uni-dimensional construct. However, one of the biggest arguments is that considering perpetrator workplace aggression as a uni-dimensional construct may have restricted our understanding about the true nature of the 'workplace aggression' construct, a situation generally known as construct-deficiency-phenomenon in industrial and organizational psychology literature. It is also important to better understand workplace aggression construct because is a universal and serious economic threat to organizations (see

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Bensimon, 1994; McGun, 1988; Murphy, 1993). Though it is a pervasive and expensive

problem to organizations, no research paid attention to find whether perpetrator workplace

aggression is a uni-dimensional or multi-dimensional construct from the perspective of a multi-

dimensional approach. A multi-dimensional construct would offer two primary benefits: (1) help

researchers better understand the fundamental character of perpetrator workplace aggression

construct and (2) provide practitioners with specific, actionable information that could be used to

guide organizations to minimize perpetrator workplace aggression caused.

Existing scales also lack content-related validity of this construct, which I described later.

In addition, Marcus et al. (2016) suggested that the "general factor" concept may become less

clear if the model is more complex. I aimed to develop a perpetrator workplace aggression scale

that includes all possible content-areas of the construct, perpetrator workplace aggression.

Therefore, I considered 24 different content-areas of the construct, with two-three items

representing their respective content-area. Developing a scale of at least 48 items is a more

complex process than developing a scale of 10 items as fulfilling the statistical requirements for

a model of at least 48 items is more complex than for a model of 10 items. One of the common

findings in the scale development study is that when there are more items in a scale that assess

the same construct, the positive correlation between two predictor items of that scale becomes

higher (e.g., Bennett & Robinson; Gruys & Sackett, 2003). Thus, I expected that some of the

correlations between two predictor items of my 49-item perpetrator workplace aggression scale

might be higher (e.g., $\geq$ .60, .70, & .80).

Therefore, there were four purposes of this study: (1) whether perpetrator workplace

aggression was a uni-dimensional or multi-dimensional construct from the perspective of a

multi-dimensional approach, (2) if it was a uni-dimensional construct, whether the predictor

items showed a very high level of positive correlation between them (e.g., $\geq$ .60, .70, & .80), (3) if it was a uni-dimensional construct, whether the general factor concept was more clearly established, and (4) developing a measure with necessary items that may more accurately assess perpetrator workplace aggression with a higher level of content-related validity and construct-related validity.

In the following sections, I first defined perpetrator workplace aggression, discussed why we should care about it, and argued why it may be a multi-dimensional construct by critically evaluating the most popular and widely used perpetrator's workplace aggression scale, interpersonal deviance scale (Bennett & Robinson, 2000).

Defining "perpetrator workplace aggression." Perpetrator workplace aggression refers to the behavior of a perpetrator that harms or is intended to harm others psychologically or physically or both in a work setting (Neuman & Baron, 1998; Schat & Kelloway, 2005). This definition is based on the general human aggression literature (e.g., Baron & Richardson, 1994; Berkowitz, 1993), which includes a wide range of physical or psychological or both behaviors, and takes into account a variety of sources within (e.g., supervisors, coworkers) and outside of (e.g., customers, clients, patients) the organization (e.g., Greenberg & Barling, 1999; LeBlanc & Kelloway, 2002).

Why we should care about workplace aggression. We should care about workplace aggression because of its relationships with various workplace outcomes. For example, it is positively related to job stress (Bowling & Beehr, 2006; Fox & Spector, 1999; Glomb, 2002), job dissatisfaction (e.g., Bowling & Beehr; Budd et al.,1996; Hershcovis & Barling, 2010), lower affective commitment (Barling et al.; LeBlanc & Kelloway, 2002), higher turnover intentions (Hershcovis & Barling; LeBlanc & Kelloway; Rogers & Kelloway, 1997), increased job neglect

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(Barling et al.; Schat & Kelloway, 2000), and lower productivity (Budd et al.). It is negatively

related to job performance of employees (Barling et al., 2001; Bowling & Beehr, 2006; Harris et

al., 2007) as well as their psychological and physical well-being (Barling, 1996; Bowling &

Beehr), for example, psychological distress, depression, and emotional exhaustion (Hershcovis &

Barling, 2010; Jex & Beehr, 1991; Kahn & Byosiere, 1992). It also causes both fear and anxiety

in employees (Barling et al.; Schat & Kelloway, 2000), affects the cognitive and emotional

resources of employees (Barling), and leads employees to show interpersonal deviance and

organizational deviance (e.g., Bowling & Beehr; Hershcovis & Barling).

Workplace aggression also predicts fear reactions, which in turn predict depression,

anxiety, hostility, sleep disturbance, and gastrointestinal phenomenon (Rogers & Kelloway,

1997; Schat & Kelloway, 2000). More importantly, workplace aggression begets workplace

aggression (Andersson & Pearson, 1999; Baron & Neuman, 1996; Greenberg & Barling, 1999),

which resembles the term incivility spiral (Andersson & Pearson, 1999). Incivility spiral refers

to situations created by employees in a workplace that follow a pattern of consecutive increases

or decreases (Lindsley et al., 1995). It happens mainly because employees have inadequate

understanding of the situations they create, or they are unwilling, or they are unable to change

their behaviors (Masuch, 1985)

Why perpetrator workplace aggression may be a multi-dimensional construct.

Research taking the victim perspectives has distinguished between several different types of

aggression, for example, bullying (e.g., Rayner, 1997), social undermining (e.g., Duffy et al.,

2002), ostracism (e.g., Robinson et al., 2013), and incivility (e.g., Morris, 1996). On the other

hand, except a few studies, for example, anti-social behavior (e.g., Robinson & O'Leary-Kelly,

1998), interpersonal deviance (e.g., Bennett & Robinson, 2000), and retaliation (e.g., Skarlicki &

Folger, 1997), research taking the perpetrator's perspectives generally treats workplace

aggression as a uni-dimensional construct (e.g., Bennett & Robinson; Spector et al., 2005).

Unsurprisingly, the most popular and widely used perpetrator workplace aggression scale, the

interpersonal deviance scale developed by Bennett and Robinson, measures workplace

aggression with the items that assess overall perpetrator workplace aggression. Therefore, it

would make sense to draw distinctions between different forms of perpetrator workplace

aggression. I supported my argument with the critical evaluation of the interpersonal deviance

scale (Bennett & Robinson) below.

Critical evaluation of Bennett and Robinson's (2000) interpersonal deviance scale.

This scale has 7 distinct items: (1) "Made fun of someone at work," (2) "Said something hurtful

to someone at work," (3) "Made an ethnic, religious, or racial remark at work," (4) "Cursed at

someone at work," (5) "Played a mean prank on someone at work," (6) "Acted rudely toward

someone at work," and (7) "Publicly embarrassed someone at work." Critically looking at the

items makes it apparent that the items can fit into more than one possible dimension. For

example, perpetrators may make fun of someone at work because they want to verbally abuse

that person for some reasons (e.g., they do not like that person, that person is a challenge for

them), or they want to make unwanted joke about that person for some reasons (e.g., that person

is an easy target, they just want to make unwanted jokes about that person). Based on my critical

evaluation of all the distinct items, I have created a table. The first column of the Table 1

contains the items of interpersonal deviance scale, while the second column represents the

possible dimensions of which the respective item can be part of.

As Bennett and Robinson's (2000) interpersonal deviance scale assesses only seven types

of perpetrator workplace aggressive behavior, it may cause the criterion deficiency or construct

deficiency phenomenon. This is because this scale does not include any item that measures perpetrator workplace aggression from the perspectives of work-specific verbal abuse, yelling, work-specific doubted competence, blaming, social isolation, social manipulation, failing to protect someone from harm, lying, general obstruction, restricting communication, withholding credit, invasion of privacy, aggressive gesture, harming property, theft, sexual aggression, workplace violence: threat of physical violence, workplace violence: actual physical violence, and any other items (i.e., "Omnibus items") that may or might be related to it (e.g., "While at work, I made someone feel incompetent."). Together, they all show a high level of lack of content-related validity, and subsequently, a construct-related validity.

Therefore, the most important purpose of this research was to develop a perpetrator workplace aggression scale that shows a higher level of content-related and construct related validity. To do so, I designed my research with three studies. Study 1 was designed to generate items and conduct an exploratory factor analysis. Study 2 was designed to conduct a confirmatory factor analysis, while Study 3 was designed to examine PAS' construct validity. In the following sections, I described why I considered the comprehensive list of items provided by Bowling et al. (2015) to generate items, how the list ended up with 106 items, and pilot study.

Study 1: Item Generation and Pilot Study

Consideration of the items provided by Bowling et al. (2015). Bowling et al. (2015) listed all the workplace aggression items, which produced a comprehensive list of 306 items with 26 sub-dimensions. The items in Bowling et al. are actually the items of the scales that were developed by researchers to assess workplace aggression both from victim's and perpetrator's perspectives. Instead of writing items, I selected items from this comprehensive list for several reasons. First, the items capture the workplace aggression construct. Second, the list includes a

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broad range of workplace aggressive behaviors. Third, it serves the purpose of my study.

Finally, it is unnecessary to create something when it is already there. The selection criteria of

the items were their relevance to the perpetrator and face validity, which ultimately produced a

list of 102 items. I didn't consider sub-dimensions "Manipulation of work tasks" as it is entirely

supervisor or manager related, "Supervisor-specific abuse" as it is entirely supervisor related,

and "Items that could not be placed into any of the above subthemes" as many of this sub-

dimension's items were worded slightly differently than the items I considered for the remaining

sub-dimensions. Leaving these three sub-dimensions initially made 23 sub-dimensions.

However, I made the sub-dimension "Harming property/theft" into two different sub-

dimensions: "Harming property" and "Theft," which eventually made 24 sub-dimensions.

Whether items should contain the word, "coworkers" or "someone," I chose "someone"

because it includes subordinates, supervisors, managers, and other employees at work as well as

customers and clients outside work. Inclusion of customers and clients is important because an

organization might lose its business with them if they experience perpetrator workplace

aggression while buying products or receiving service. I had also made some changes in the

items in a way that kept the face validity of the items intact, but at the same time they could

represent the perpetrator perspectives based on workplace interactions. For example, the original

item, "Hurt your feelings? (Duffy et al., 2002)" can be understood that perpetrator hurt

someone's feeling outside workplace or for nonwork-related matter. Thus, to make it more work

or workplace specific, the item was written as "While at work, I hurt someone's feelings."

Likewise, the original item, "Made negative comments to you about your personality? (Rospenda

& Richman, 2004)" was written as "While at work, I made negative comments to someone about

his or her personality."

How the list ended up with 106 items. I had thoroughly gone through the existing scales to find at least two distinct items with relevance to perpetrator and face validity. Because I did not find at least two distinct items, I made a list of some new items for some of the sub-dimensions (e.g., sub-dimension "Unwanted jokes"). To make this list, I requested 25 people (graduate students of various disciplines including IO psychology doctorate program and employees who worked full-time and part-time) to write down some workplace aggressive behaviors they could think of. Nine of those 25 people provided their response. In addition, I also wrote down some items. After reviewing all the items, I selected 4 items (i.e., "While at work, I made negative comments about a coworker's job knowledge.," "While at work, I made negative comments about a coworker's expertise.," "While at work, I took items from someone's desk without prior permission.," "While at work, I made jokes about someone's race, ethnicity, religion, or nationality.") that showed relevance to perpetrators and face validity. Thus, adding these 4 items to the 102 items selected from Bowling et al. (2015) eventually created a list of 106 items.

Pilot study. I reviewed seminal articles (i.e., Bennett & Robinson, 2000; Hershcovis, 2007) and a book chapter (Bowling et al., 2015) that describe the nature of the workplace aggression construct. I also reviewed the existing scales (e.g., Bennett & Robinson; Spector et al., 2005). Next, to examine whether perpetrator workplace aggression was a uni-dimensional or multi-dimensional construct from the perspective of a multi-dimensional approach, I conducted a pilot study where participants responded to 106 items of perpetrator workplace aggressive behaviors, and then ran an exploratory factor analysis (EFA). This pilot study also included an open-ended question asking participants to describe up to five workplace aggressive behaviors they had experienced as victim, perpetrator, or witness. I included the open-ended question to

learn if there was any other perpetrator workplace aggressive behavior that was not listed in the comprehensive list of Bowling et al. This open-ended question produced no new perpetrator workplace aggressive behavior.

Study 1: Method

Participants and Design

Participants (N = 271) were on average 36 years old (SD = 9.97), worked for an average of 10.34 years, (SD = 8.08 years), and employed for an average of 34.11 hours (SD = 13.22 hours) per week. 64.6% of them were male and 35.4% were female. They were Caucasian (60.9%), Asian (13.3%), African American (12.2%), Hispanic (7.4%), American Indian (1.8%), and others (4.4%). They had bachelor's degree (64.2%), master's degree (21.8%), regular high school diploma (3.3%), associate degree (3.0%), some college credit (2.2%), and other academic qualifications (5.5%). The sample job titles were "manager," "IT employee," "teacher," "finance," "accountant" and "sales-person."

Participants were recruited through Amazon Mechanical Turk (MTurk) and received $1.00 for completing an online packet of questionnaires. Researchers in social science have been frequently using MTurk (Behrend et al., 2011, Porter et al., 2019; Walter et al., 2019) to collect data for experimental (e.g., Crump et al. 2013; Horton et al. 2011; Sprouse 2011) and observational research (e.g., Buhrmester et al. 2011). To maximize internal validity, external validity, statistical conclusion, and construct validity of this sample, I detected and screened inattentive responses and ensured its characteristics (e.g., English fluency of participants) closely matched the characteristics of the targeted population (Aguinis et al., 2021; Cheung et al., 2017).

Measures

Participants responded to a comprehensive list of 106 items (e.g., "While at work, I started an argument with someone.," "While at work, I swore at someone.," "While at work, I excluded someone from important work activities or meetings.") using a 7-point scale from 1= *Never* to 7 = *Daily*.

Analysis

I conducted the EFA to examine whether the perpetrator workplace aggression is a uni-dimensional or multi-dimensional construct from the perspective of a multi-dimensional approach. Researchers recommend different sets of parameters to decide whether the EFA results are acceptable. The parameters that I considered were: (1) eigen value, (2) factor loading (3) cross-factor loading, (4) correlation between items, (5) correlation between factors, (6) parallel analysis (PA), (7) sampling adequacy (i.e., Kaiser-Meyer-Olkin Measure of Sampling Adequacy), (8) Bartlett's Test of Sphericity, (9) determinant, and (10) scree plot.

Even though these parameters have limitations, the inclusion of the above parameters were recommended by researchers for respective reasons (Beavers et al., 2013; Conway & Huffcutt, 2003; Fabrigar et al., 1999; Ford et al., 1986; Humphreys & Montanelli, 1975; Kline, 2013). In the EFA, to have a positive reliability coefficient of the factors, it is necessary and sufficient that the respective factor's eigen values must be greater than 1 (Kaiser, 1960). Items with factor-loadings $\geq$ .70 should be considered as this cut-off score indicates that those items are strongly loaded onto their respective factors, while cross factor-loadings of those items should be $\leq$ .40 as this cut-off score indicates those items are not strongly loaded onto any other factor (Linn, 1968; Zwick & Velicer, 1982; Zwick & Velicer, 1986). A correlation of $<$ .70 between items or factors should be considered as a correlation of $\geq$ .70 between items or factors indicates that they are redundant (DeVellis, 2003; Nunnally, 1978; Nunnally & Bernstein, 1994).

Parallel analysis (PA) is a statistical method that simulates a set of random data with the same number of variables and participants as the real data (Horn, 1965). It then compares the resulted eigen values to the eigen values resulted from the original data. Factors from the original data are retained if their eigen value is greater than that of random data (Horn; Watkins, 2006; Zwick & Velicer, 1982). Thus, PA reconfirms whether the factors resulted with the original data should be retained and considered for further statistical analyses in a scale development study (Fabrigar et al., 1999; Ford et al., 1986; Pallant, 2010). Bartlett's (1954) test of Sphericity is an objective test that statistically examines whether the correlation matrix based on random data has ones on the diagonal and zeros on the off-diagonals, and whether the EFA is justifiable (Beavers et al., 2013; Watkins, 2018). This test also confirms whether the items share a pattern relationship with their respective factors (Yong & Pearce, 2013). If the computed $\chi2$ value of a Bartlett's (1954) test is significant at $p < .001$, it is concluded that random data has generated the correlation matrix, justifies the application of the EFA, and the factors have a pattern relationship (Beavers et al.; Carpenter, 2018; Watkins).

A non-zero determinant (ranges from 0 to 1) implies that a factor or component is mathematically possible (Beavers et al., 2013). The cut-off score of determinant is .00001, which indicates an absence of multicollinearity (Yong & Pearce, 2013). If the determinant is less than .00001, multicollinearity is a potential concern indicating highly correlated or redundant items (Beavers et al.; Yong & Pearce). Sampling adequacy is important as fewer than required number of participants may affect the accuracy of decision making on number of components to be retained (Zwick & Velicer, 1986). The scree plot (i.e., Cattell's Scree Plot; Cattell, 1966) provides a graphical representation of the factors and their respective eigen values. The plot takes a shape of elbow as the first component usually accounts for the highest amount

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of variance, followed by gradual decrease in variance accounted by later components. Researchers use this plot with recommendation that factors before the bend of its elbow shape are the factors that should be considered (Beavers et al.; Fabrigar et al., 1999; Ledesma & Valero-Mora, 2007).

Study 1: Results

Perpetrator workplace aggression is a uni-dimensional construct. The parameters that I considered to decide whether the EFA results were acceptable were (1) eigen value (i.e., $\geq$ 1), (2) factor loading ($\geq$ .70), (3) cross-factor loading ($\leq$ .40), (4) correlation between items ($\leq$ .70), (5) correlation between factors ($\leq$ .70), (6) parallel analysis (PA), (7) sampling adequacy (i.e., Kaiser-Meyer-Olkin Measure of Sampling Adequacy: $\geq$.80), (8) Bartlett's (1954) test of Sphericity ($\chi2$ value's significance at $p < .001$), (9) determinant ($> .00001$), and (10) scree plot.

The EFA initially showed that perpetrator workplace aggression was a multi-dimensional construct (i.e., 2 dimensions). However, when I looked at the loading and cross-loading of the items onto respective dimension, I found that all 106 items were loaded onto the first dimension as it explained the highest amount of variance (78.78%) with an eigen value of 83.51. The next dimension explained only 1.20% variance with an eigen value of 1.27 though no single item was loaded onto this dimension. I then looked at the correlation between dimensions and found the correlation between dimensions 1 and 2 was very small (i.e., $r = .115$). Later, I looked at the correlations of the items and found some of them showed a very high positive correlation between them (e.g., .859 between items 9 and 24; .849 between items 1 and 13). Next, I looked at the Kaiser-Meyer-Olkin Measure of Sampling Adequacy, which showed the sampling adequacy was marvelous with .986 (it ranges from 0 to 1). I then looked at the Bartlett's (1954) test of Sphericity, which showed that the $\chi2 = 47642.977$ was significant at $p = .000$ ($< .001$).

Later, I looked at the determinant, which was 3.262E-89, much lower than the cut-off score of .00001. Finally, I looked at the scree plot, which showed that there was only one dimension before the elbow shape bent (see Figure 1). Therefore, to make sure whether there were actually two dimensions or one dimension, I then ran the parallel analysis. The parallel analysis showed that the eigen value of the original data was greater than the eigen value of the random data only for the first dimension (i.e., 83.51 > 2.544483). Thus, I was confirmed that the perpetrator workplace aggression was actually a uni-dimensional construct from the perspective of a multi-dimensional approach.

24 sub-dimensions with 49 items represented 24 content areas. Since all the 106 items loaded onto the first dimension, I needed to sift items in order to empirically identify the items that represent all 24 sub-dimensions, and thus, they should be in this uni-dimensional PAS. To do this, I conducted an item analysis with a focus on item total correlation. Item total correlation is administered to identify the items that are consistent or inconsistent with the average or total score of the item pool of a measure (Churchill Jr, 1979). Items with higher item total correlation are the items that are more consistent with the average or total score of the item pool of a measure, and thus, they should be included in that measure (Kline, 1983; Nunnally, 1978). Researchers consider different cut-off points for an item to be considered as a consistent item, for example, ≥ .30 (Cristobal et al., 2007; Field, 2009); ≥ .40 (Loiacono et al., 2002); and ≥ .50 (Kim & Stoel, 2004; Wolfinbarger & Gilly, 2003). For my study, I considered a cut-off point of ≥ .50.

I conducted the first item analysis with the four items of the "Omnibus Abuse" sub-dimension. Each of the 4 items performed exceptionally well (see Table 2)—each had high item-total correlation (the lowest value was .819 and the highest value was .861). Given that all

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the items had exceptional item-total correlation, I selected two items that showed the highest

item total correlation. I followed the same strategy for the remaining 23 sub-dimensions. For

the sub-dimension, 'General Obstructionism,' two items showed the second highest item-total

correlation (i.e., .913). Hence, I included three items for this particular sub-dimension. Thus, a

list of 49 items was developed. I then conducted an item analysis that analyzed mean, standard

deviation (SD), skewness, and kurtosis for each of the 49 items (see Table 4). Based on these

criteria, I found no unusual item. With a Cronbach alpha of .99, these 49 items explained 81%

variance in perpetrator workplace aggression (see Table 3).

Many of the predictor items showed a very high level of positive correlation between

them. Among the 49 items, the correlations between two predictor items were between .60s and

.80s (the lowest was .67 between items 15 and 30 and the highest was .88 between items 39 and

48). This high positive correlation between two predictor items served the second purpose of

this research as well as was a support for Bennett and Robinson (2000) and Gruys and Sackett

(2003).

PAS is a reflective indicator measure. A reflective indicator measure (also known as

effect indicator measure) has items that are parallel form of each other, substitutable, and

functionally equivalent that share a common concept, and thus, assess the interchangeable

components (if there are any) of the same construct, while a formative indicator (also known as

causal indicator measure) measure has items or subset of items that are not parallel form of each

other, non-substitutable, functionally inequivalent that might not share the common concept, and

thus, assess conceptually distinct respective components being combined to assess a construct

(Spector & Jex, 1998; Bennett & Robinson, 2000). Spector and Jex also suggested that the items

of a reflective indicator measure might have a very high correlation between them and a very

high internal consistency. My PAS is a reflective indicator measure because the items are parallel form of each other, substitutable, and functionally equivalent with sharing the common concept "causing harm to someone" as well as showed a very high correlation between them and a very high internal consistency, and thus, assess the interchangeable components (if there are any) of the construct, perpetrator workplace aggression.

Study 1: Discussion

I conducted the pilot study to examine whether perpetrator workplace aggression was a uni-dimensional or multi-dimensional construct from the perspective of a multi-dimensional approach. The EFA analyses showed that the perpetrator workplace aggression was a uni-dimensional construct from the multi-dimensional approach. To measure this uni-dimensional construct, I also developed a new scale, PAS. This 49-item self-report PAS has crucial impact in organizations.

Impact of the items in organizations. First, it assesses 24 content areas of the construct, perpetrator workplace aggression, which overcomes the shortcomings of the interpersonal deviance scale by Bennett and Robinson (2000) that assesses only seven content areas. Second, given the strict position of today's organizations against any workplace aggressive behaviors that are apparent, there must be some perpetrators who show their aggression in passive ways. My study showed that this particular type of perpetrators might prefer social isolation or social manipulation or restricting communication. This is because any of these three types of aggressive behavior is one of the safest strategies that negatively impacts someone's professional career and personal life in many ways and serves the ugliest purposes of the perpetrator, simultaneously. Even though none of them is a new route, it becomes important because most of the today's perpetrators are using one of them to express their workplace aggression.

Third, expecting less of someone than others at work may lead an employee to develop poorer knowledge over time about that person's true competence. Poor knowledge about someone has generally been seen as a major drawback in communication and interpersonal relationships at work (e.g., Hargie et al., 2002; Heide & Simonsson, 2011; Madlock & Booth-Butterfield, 2012). Thus, inclusion of the item representing content-area, work specific doubted competence, is of importance as it also leads employees to show workplace aggression to someone at work. Fourth, lying is one of the top unethical activities in today's workplaces that employees may engage in, which in turn might weaken all sorts of efforts to make a better decision for a given situation (Robbins & Judge, 2019). My study showed that perpetrator may prefer lying indirectly (e.g., breaking promise), which might bring at least two negative impacts. With making promise to give a piece of information to someone at work, perpetrator keeps that person hopeful that he or she will fulfill the promise he or she has made. When promised, a person usually does not look for any other source to have that information. Later, when perpetrator breaks his or her promise, the victim loses two things for sure. First, the information; and second, the time that the victim waited for. Both information and time are critical to make sound decision at work.

Fifth, taking credit for someone's work or ideas has long been a big concern for organizations, particularly for when innovativeness and creativity are practiced (e.g., Shaw & Olson, 2015). It has several major negative impacts in organizations. *First*, innovative and creative people become less willing to collaborate in the future, develop lower commitment, and experience increased turnover intention (cf. Duffy et al., 2002; Pozner, 2007). *Second*, organizations might encounter that the norms of reciprocity and equity at work are weakened, transparency between employees is reduced, and trust between employees is destroyed (Brown

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& Robinson, 2011; Fortin and Fellenz, 2008; McFarlin & Sweeney, 1992). *Third*, when an organization needs the same level of innovativeness and creativity showed by innovative and creative employees in the past, it may not receive either one anymore as perpetrators who took credit may not be able to deliver the same level of innovativeness and creativity. Sixth, withholding resources that affect someone's job performance has three different types of negative impacts. *First*, the victim cannot complete his or her task in time, which makes him or her a poorer job performer, which in turn affects his or her professional career (e.g., Evans et al., 2015; Kidwell & Valentine, 2009). *Second*, the organization cannot reach its goals in a timely manner, which might impede it to stay competitive in its business world with products or service or both. *Third*, the victim may experience higher level of organizational constraints, job dissatisfaction, work stress, lower level of motivation, lower level of psychological well-being, and lower level of physical well-being (see Kwan et al., 2018; Pindek & Spector, 2016). Given that today's workplaces strongly emphasize cooperation and collaboration to get individual and team goals accomplished in a timely manner, having perpetrators who show workplace aggression by withholding resources may turn out as one of the biggest challenges for organizations to deal with.

Seventh, even though almost all organizations have written document that they are Equal Opportunity Employer and strongly prohibit any kinds of stereotypes, or discriminations, or racism, perpetrators might show his or her aggression by making jokes about race, ethnicity, religion, and nationality (see Mullgn, 1997; Sangganjanavanich & Cavazos Jr., 2010). My study showed that any jokes related to race, ethnicity, religion, and nationality are unwanted regardless of whether they are purely harmless or a sign of workplace friendship. Eight, failing to protect someone from harm can be understood as a sign that the victim's psychological or physical well-

being is not important to his or her coworkers or customers or clients or organization, and thus, he or she is not safe at work (see Gillen et al., 2002; Tucker et al, 2008). As a result, victim may quit his or her job, or if the victim is a customer or client, he or she may stop buying products or receiving service. Either way, the organization may suffer for both short-run and long-run in terms of hiring and retaining employees or selling products or providing services to customer or clients.

The remaining 41 items assess other content-areas that are important to learn about in order to better understand how perpetrators may prefer expressing their aggression at work. This understanding may help organizations to create an environment in workplace that not only discourages perpetrators to show their aggressive behaviors, but also encourage them to maintain a higher level of organizational citizenship behavior (OCB) with their coworkers.

I also conducted the pilot study to examine if perpetrator workplace aggression was a uni-dimensional construct, whether the predictor items showed a very high level of positive correlation between them. Because the predictor items showed a very high level of correlations (i.e., $\geq$ .60, .70, & .80), the very next two questions that arose were: (1) whether the items were redundant and (2) whether there was a multicollinearity.

Whether the items were redundant. It is noteworthy that these 49 items were different from each other and represented 24 different sub-dimensions as only two items (only exception was three items representing the sub-dimension, "General Obstructionism") represented one respective sub-dimension. For example, the item 39 ("While at work, I directed an obscene gesture (e.g., "gave the finger") at someone.") and item 48 ("While at work, I hit or kicked someone.") were different and represented different sub-dimensions, namely *aggressive gesture* and *workplace violence: actual physical violence*, even though they showed the highest

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correlation (i.e., .88). Likewise, the item 15 ("While at work, I doubted that someone would perform his or her job the correct way.") and item 30 ("While at work, I restricted someone's opportunity to speak.") were different and represented different sub-dimensions, namely *work-specific doubted competence* and *restricting communication*, even though they showed the lowest correlation (i.e., .66).

Bennett and Robinson (2000) suggested that a perpetrator is more likely to choose another aggressive behavior depending on the situation, feasibility, and possible cost from the same family than from another family because behaviors from the same family are substitutable and functionally equivalent to serve the common purpose (in our case, "causing harm to someone"). Therefore, the positive correlation between two predictor items of a family of behaviors (in our case, the family is *perpetrator workplace aggression*) should be very high, which I found in my pilot study. Marcus et al. (2016) also suggested that all CWB items should be highly correlated even though they represent different content-areas as there might be a "general factor" underlies all acts of CWB (Sackett & DeVore, 2001). Noteworthy, the EFA of my pilot study showed that perpetrator workplace aggression was a uni-dimensional construct, which indicated there may be support for the "general factor concept" (Sackett & DeVore, 2001). I would like to mention that I conducted other research projects where I found very high correlations (e.g., .873, .824, .798, .793) between two predictor items selected from the same family of behaviors; however, I did not report those high correlations in published or unpublished paper. In addition, I also looked at the Bartlett's (1954) test of Sphericity, which was $\chi2 = 21537.438$ and significant at $p = .000$ ($< .001$). This significance means the correlation matrix was based on random data having ones on the diagonal and zeros on the off diagonals, the EFA was justifiable, and items shared a pattern relationship with their respective sub-dimension.

Whether there was a multicollinearity. I looked at the determinant, which was 1.011E-37 and much lower than the cut-off point, .00001. This much lower value of determinant indicates that there may be a case of multicollinearity, which is very high correlation between two predictor items (Beavers et al., 2013; Yong & Pierce, 2013). To have the multicollinearity, the rule of thumb is that correlation between two predictor items must be ≥ .80 (some researchers argue about ≥ .90; Yong & Pearce). Because there were several cases of having a correlation ≥ .80 between two predictor items, the multicollinearity may have been a possible case here. If that was a case, then we had another support for Bennett and Robinson (2000) and Marcus et al.'s (2016) suggestion of high positive correlation between predictor items.

As Study 1 found that perpetrator workplace aggression was a uni-dimensional construct from the perspective of a multi-dimensional approach, I collected a new sample ($N = 337$) for Study 2 to conduct a CFA.

Study 2: Method

Participants and Design

Participants ($N = 337$) were on average 33.82 years old ($SD = 10.44$), worked for an average of 10.13 years, ($SD = 9.47$ years), and employed for an average of 39.16 hours ($SD = 7.32$ hours) per week. 59.1% of them were male and 40.9% were female. They were Caucasian (89.9%), African American (4.7%), Asian (2.4%), Hispanic (1.2%), and others (1.8%). They had bachelor's degree (61.7%), master's degree (23.7%), regular high school diploma (3.6%), associate degree (3.3%), some college credit (3.0%), and other academic qualifications (4.7%). The sample job titles were "engineer," "nurse," "manager," "IT employee," "software developer," and "accountant."

Participants were recruited through Amazon Mechanical Turk (MTurk) and received $1.00 for responding to 49 items of the PAS developed in Study 1 (Pilot Study). Researchers in social science have been frequently using MTurk (Behrend et al., 2011, Porter et al., 2019; Walter et al., 2019) to collect data for experimental (e.g., Crump et al. 2013; Horton et al. 2011; Sprouse 2011) and observational research (e.g., Buhrmester et al. 2011). To maximize internal validity, external validity, statistical conclusion, and construct validity of this sample, I detected and screened inattentive responses and ensured its characteristics (e.g., English fluency of participants) closely matched the characteristics of the targeted population (Aguinis et al., 2021; Cheung et al., 2017).

Measures

Participants responded to 49 items (e.g., "While at work, I reminded a coworker about his or her past mistakes and failures.," "While at work, I failed to protect someone from harm.," "While at work, I withheld resources, which affected someone's performance.") using a 7-point scale from 1= *Never* to 7 = *Daily*. A higher score indicated perpetrators showed a higher level of workplace aggression.

<div align="center">

Study 2: Results

</div>

In the first model, all 49 items were directly loaded onto PAS. With $\chi 2 = 2880.076$ and degrees of freedom (*df*) = 1127, this model resulted $CFI = 0.920$ (< 0.95; unfit), $RMSEA = 0.068$ (> 0.06; unfit), and $SRMR = 0.024$ (< 0.08; fit). In the second model, respective items were loaded onto their respective sub-dimensions. With $\chi 2 = 1446.875$ and $df = 710$, this model resulted $CFI = 0.964$ (> 0.95; fit), $RMSEA = 0.055$ (< 0.06; fit), and $SRMR = 0.018$ (< 0.08; fit). In the third model, respective items were first loaded onto their respective sub-dimensions, then all the sub-dimensions were loaded onto PAS. With $\chi 2 = 1485.384$ and $df = 686$, this model

resulted *CFI* = 0.961 (> 0.95; fit), *RMSEA* = 0.059 (< 0.06; fit), and *SRMR* = 0.018 (< 0.08; fit).

Based on the *CFI*, *RMSEA*, and *SRMR*, both the second and third models were a good fit (see

Table 5). Next, I ran another statistical analysis to decide which one fitted better based on the

changes in $\chi 2$, changes in *df*, and the *p* value. This analysis showed that the third model fitted

better (i.e., a model of a uni-dimensional construct with a general dimension at the top and

multiple sub-dimensions at the lower levels; see Table 6), which also provided statistical

evidence that the "general factor concept" (Sackett & DeVore, 2001) was more clearly

established (cf. Marcus et al., 2016) in a complex model. I reported $\chi 2$, *df, CFI, RMSEA, SRMR,*

$\Delta\chi 2$, Δdf, *and p*-value in Tables 4 and 5. I also conducted an item analysis that analyzed mean,

standard deviation (SD), skewness, and kurtosis for each of the 49 items (see Table 7). Based on

these criteria, I found no unusual item.

Study 2: Discussion

I conducted a CFA to examine whether a model of a uni-dimensional construct with no

sub-dimension (first model) fitted better than either a model of a uni-dimensional construct with

multiple sub-dimensions (second model) or a model of a uni-dimensional construct with a

general dimension at the top and multiple sub-dimensions at the lower levels (third model) based

on their respective *CFI*, *RMSEA*, and *SRMR*. The CFA results showed that the third model fitted

better, which confirmed that there is a general dimension of perpetrator workplace aggression at

the top and sub-dimensions that carry unique variance at lower levels, which was a support for

Sackett and DeVore (2001), Marcus et al. (2002), and Marcus et al. (2016). Thus, perpetrator

workplace aggression is a hierarchically organized construct.

As Study 2 found that perpetrator workplace aggression is a hierarchically organized

construct, I collected another sample (*N* = 264) for Study 3 to examine the construct validity of

my PAS. I thus developed a nomological network (see Cronbach & Meehl, 1955) of PAS that examined its hypothesized and analyzed relationships with some external variables (see Table 10). This nomological network included five types of external variables: (a) workplace deviant behaviors (i.e., interpersonal deviant behavior and organizational deviant behavior), (b) job attitudes (i.e., global job satisfaction, organizational commitment, satisfaction with coworkers, and turnover intention), (c) personality traits (i.e., neuroticism, conscientiousness, agreeableness, trait anger, trait self-control, and honesty-humility), (d) emotional responses (i.e., negative work-related emotions, frustration, and job boredom), and (e) work stressors (i.e., organizational constraints, interpersonal conflict, role ambiguity, and role conflict).

I hypothesized that PAS would be positively related to the external variables purported to measure the same or similar constructs (e.g., anger, negative work-related emotion, boredom), while negatively related to the external variables purported to measure an opposite or dissimilar constructs (e.g., conscientiousness, honesty-humility, satisfaction with coworker). I also hypothesized that PAS would be more strongly related with the interpersonal deviance scale (IDS) than with the organizational deviance scale (ODS) of Bennett and Robinson (2000). With Study 3, I also examined whether PAS explained unique variance in criterion variables (e.g., global job satisfaction, organizational commitment, frustration, agreeableness) after the effect of IDS (Bennett & Robinson, 2000) was controlled for.

Study 3: Method

Participants and Design

Participants ($N = 264$) were on average 35.63 years old ($SD = 10.33$), worked for an average of 12.05 years, ($SD = 9.85$ years), and employed for an average of 40.29 hours ($SD = 6.11$ hours) per week. 55.7% of them were male, 43.9% were female, and 0.4% were other sex.

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They were Caucasian (86.7%), African American (5.7%), Asian (3.0%), Hispanic (2.3%), American Indian (0.4%), and others (1.8%). They had bachelor's degree (58.3%), master's degree (22.7%), associate degree (3.8%), one or more year of college (3.8%), regular high school diploma (3.8%), some college credit (3.4%), and other academic qualifications (4.1%). The sample job titles were "sales manager," "IT employee," "welder," "finance," "data analyst" and "registered nurse."

Participants were recruited through Amazon Mechanical Turk (MTurk) and received $3.00 for completing an online packet of questionnaires. Researchers in social science have been frequently using MTurk (Behrend et al., 2011, Porter et al., 2019; Walter et al., 2019) to collect data for experimental (e.g., Crump et al. 2013; Horton et al. 2011; Sprouse 2011) and observational research (e.g., Buhrmester et al. 2011). To maximize internal validity, external validity, statistical conclusion, and construct validity of this sample, I detected and screened inattentive responses and ensured its characteristics (e.g., English fluency of participants) closely matched the characteristics of the targeted population (Aguinis et al., 2021; Cheung et al., 2017).

Measures

Perpetrator workplace aggression. I assessed perpetrator aggressive behavior at work ($\alpha = .99$) using the perpetrator aggression scale (PAS; App B) developed in this study. Participants responded to 49 items (e.g., "While at work, I broke promises I made to someone.," "While at work, I restricted someone's opportunity to speak.," "While at work, I made jokes about someone's race, ethnicity, religion, or nationality.") using a using a 7-point scale from 1= *Never* to 7 = *Daily.* A higher score indicated a higher level of display of perpetrator workplace aggression.

Interpersonal deviant behaviors. I assessed interpersonal deviant behavior ($\alpha = .96$) using interpersonal deviance scale developed by Bennett and Robinson (2000; App C). Participants responded to 7 items (e.g., "Said something hurtful to someone at work," "Publicly embarrassed someone at work") using a 7-point scale from 1= *Never* to 7 = *Daily*. A higher score indicated a higher level of engagement of perpetrators in interpersonal deviant behaviors.

Organizational deviant behaviors. I measured organizational deviant behavior ($\alpha = .96$) using organizational deviance scale developed by Bennett and Robinson (2000; App D). Participants responded to 12 items (e.g., "Taken property from work without permission," "Discussed confidential company information with an unauthorized person") using a 7-point scale from 1= *Never* to 7 = *Daily*. A higher score indicated a higher level of engagement of perpetrators in organizational deviant behaviors.

Global job satisfaction. I measured global job satisfaction ($\alpha = .74$) using the scale developed by Cammann et al. (MOAQ-JSS; 1983; App E). Participants responded to 3 items (e.g., "All in all I am satisfied with my job") using a 7-point scale from 1= *Strongly disagree* to 7 = *Strongly agree*. A higher score indicated a higher level of global job satisfaction of perpetrators.

Organizational commitment. I measured organizational commitment ($\alpha = .93$) using organizational commitment scale developed by Porter et al. (1974; App F). Participants responded to 6 items (e.g., "I am proud to tell others that I am part of the organization where I work") using a 7-point scale from 1= *Strongly disagree* to 7 = *Strongly agree*. A higher score indicated a higher level of organizational commitment of perpetrators.

Satisfaction with coworkers. I measured satisfaction with coworkers at work ($\alpha = .68$) using the satisfaction with coworkers scale developed by Bowling et al. (2018; App G).

Participants responded to 5 items (e.g., "Overall, I am very pleased to work with my coworkers")

using a 7-point scale from 1= *Strongly disagree* to 7 = *Strongly agree*. A higher score indicated

perpetrators experienced a higher level of satisfaction with coworkers at work.

Turnover intention. I measured turnover intention (α = .92) using the turnover intention

scale developed by Jaros (1997; App H). Participants responded to 3 items (e.g., "I often think

about quitting my job.") using a 7-point scale from 1= *Strongly disagree* to 7 = *Strongly agree*.

A higher score indicated a higher level of turnover intention of perpetrators.

Neuroticism. I assessed neuroticism (α = .76) using the International Personality Item

Pool (IPIP) – Neuroticism Scale (Goldberg, 2006; App I). Participants responded to 10 items

(e.g., "I often feel blue," "I am not easily bothered by things (R)") using a 7-point scale from 1 =

Strongly disagree to 7 = *Strongly agree*. A higher score indicated a higher level of neuroticism

of perpetrators.

Conscientiousness. I assessed conscientiousness (α = .80) using the International

Personality Item Pool (IPIP) – Conscientiousness scale (Goldberg, 2006; App J). Participants

responded to 10 items (e.g., "I am always prepared," "I leave my belongings around (R)") using

a 7-point scale from 1 = *Strongly disagree* to 7 = *Strongly agree*. A higher score indicated a

higher level of conscientious of perpetrators.

Agreeableness. I assessed agreeableness (α = .79) using the International Personality

Item Pool (IPIP) – Agreeableness scale (Goldberg, 2006; App K). Participants responded to 10

items (e.g., "I have a good word for everyone," "I get back at others (R)") using a 7-point scale

from 1 = *Strongly disagree* to 7 = *Strongly agree*. A higher score indicated a higher level of

agreeableness of perpetrators.

Trait anger. I assessed anger (α = .93) using the State-Trait Anger Scale (STAS) developed by Spielberger et al. (1983; App L). Participants responded to 10 items (e.g., "Hotheaded person," "Furious when criticized," "Slowed by others") using a 4-point scale from 1= *Not at all* to 4 = *Always*. A higher score indicated a higher level of anger of perpetrators.

Trait self-control. I assessed self-control (α = .84) using the Brief Self-control Scale (BSS) developed by Tangney et al. (2004; App M). Participants responded to 13 items (e.g., "I am good at resisting temptation," "Pleasure and fun sometimes keep me from getting work done (R)") using a 5-point scale from 1= *Not at all* to 5 = *Always*. A higher score indicated a higher level of self-control of perpetrators.

Honesty-Humility. I assessed honesty-humility (α = .74) using the honesty-humility scale developed by Ashton and Lee (2009; App N). Participants responded to 10 items (e.g., "I would never accept a bribe, even if it were very large.," "I want people to know that I am an important person of high status. (R)") using a 5-point scale from 1= *Strongly disagree* to 5 = *Strongly agree*. A higher score indicated a higher level of honesty-humility of perpetrators.

Negative work-related emotion. I assessed negative work-related emotion (α = .93) using the negative work-related emotion scale developed by Van Katwyk et al. (2000; App O). Participants responded to 10 items (e.g., "My job made me feel angry," "My job made me feel discouraged") using a 5-point scale from 1= *Never* to 5 = *Extremely often*. A higher score indicated perpetrators experienced a higher level of negative emotion at work.

Frustration. I measured frustration (α = .87) using the frustration scale developed by Peters et al. (1980; App P). Participants responded to 2 items (i.e., "Trying to get this "job" done was a very frustrating experience" and "Being frustrated comes with this "job"") using a 7-point

scale from 1= *Strongly disagree* to 7 = *Strongly agree*. A higher score indicated perpetrators experienced a higher level of frustration at work.

Job boredom. I measured job boredom (α = .92) using the scale developed by Bauer and Spector (2015; App Q). Participants responded to 5 items (e.g., "I experienced feelings of boredom at work," "I became sluggish due to the monotony of the job") using a 7-point scale from 1= *Strongly disagree* to 7 = *Strongly agree*. A higher score indicated perpetrators experienced a higher level of boredom at work.

Organizational constraints. I measured organizational constraints (α = .96) using the Global Multi-facet Organizational Constraints Scale (G-MOCS) developed by Bowling et al. (2022; App R). Participants responded to 16 items (e.g., "My job is needlessly difficult because of the workplace physical condition," "My job is needlessly difficult because supervisor fails to give help") using a 7-point scale from 1= *Strongly disagree* to 7 = *Strongly agree*. A higher score indicated perpetrators experienced more organizational constraints at work.

Interpersonal conflict. I measured interpersonal conflict at work (α = .90) using the interpersonal conflict scale developed by Spector and Jex (1998; App S). Participants responded to 4 items (e.g., "How often do you get into arguments with others at work?") using a 5-point scale from 1= *Never* to 5 = *Very often*. A higher score indicated perpetrators experienced interpersonal conflict more frequently at work.

Role ambiguity. I measured role ambiguity (α = .78) using the role ambiguity scale developed by Bowling et al. (2017; App T). Participants responded to 6 items (e.g., "I am not sure what is expected of me at work," "I know what I am required to do for every aspect of my job (R)") using a 7-point scale from 1= *Strongly disagree* to 7 = *Strongly agree*. A higher score indicated perpetrators experienced a higher level of role ambiguity at work.

Role conflict. I measured role conflict (α = .71) using the role conflict scale developed by Bowling et al. (2017; App U). Participants responded to 6 items (e.g., "My superiors often tell me to do two different things that can't both be done," "The things I am told to do at work do not conflict with each other (R)") using a 7-point scale from 1= *Strongly disagree* to 7 = *Strongly agree*. A higher score indicated perpetrators experienced a higher level of role conflict at work.

Analysis

With the Study 3 sample, I ran correlation analyses to find whether the study variables were correlated, and if yes, whether they were statistically significant. I also ran the correlation analyses to test the extent to which the empirically established PAS behaved in the manner predicted in the nomological network. To examine whether PAS explained additional variance in criterion variables, I used *SPSS*, a software program, to conduct hierarchical regression analyses. I ran the first regression analysis to analyze how much of variance in each criterion variable was explained by the IDS (Bennett & Robinson, 2000). Then, I ran a second regression analysis to analyze how much additional variance in each criterion variable was explained by PAS after the effect of IDS (Bennett & Robinson) was controlled for.

<center>**Study 3: Results**</center>

Table 8 and 9 report the descriptive statistics of study variables. Table 10 reports the hypothesized and analyzed relationships of PAS with hypothesized correlates, while Table 11 reports the hierarchical regression analyses examining the incremental validity of PAS.

Correlation analyses. As described in the following subsections, I used correlation analyses to examine whether PAS was more strongly related with IDS than with the ODS (Bennett & Robinson, 2000). I also used the correlation analysis to examine PAS's hypothesized relationships with the external variables included in the nomological network.

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PAS's relationships with external variables. As predicted, PAS was more strongly related with the IDS ($r = .91$, $p < .01$) than with the ODS ($r = .87$, $p < .01$). Consistent with my prediction, three of the job attitudes were correlated with PAS: global job satisfaction ($r = -.12$), satisfaction with coworkers ($r = -.28$, $p < .01$), and turnover intention ($r = .56$, $p < .01$). However, contrary to my prediction, the organizational commitment ($r = .16$, $p < .01$), one of the job attitudes, was positively correlated with PAS. As predicted, all six personality traits were correlated with PAS: neuroticism ($r = .45$, $p < .01$), conscientiousness ($r = -.57$, $p < .01$), agreeableness ($r = -.62$, $p < .01$), anger ($r = .76$, $p < .01$), self-control ($r = -.67$, $p < .01$), and honesty-humility ($r = -.52$, $p < .01$). As predicted, all three types of emotional responses were correlated with PAS: negative work-related emotions ($r = .66$, $p < .01$); frustration ($r = .23$, $p < .01$), and job boredom ($r = .60$, $p < .01$). As predicted, all four work-stressors were correlated with PAS: organizational constraints ($r = .71$, $p < .01$), interpersonal conflict ($r = .83$, $p < .01$), role ambiguity ($r = .43$, $p < .01$), and role conflict ($r = .17$, $p < .01$). I reported all the hypothesized and analyzed relationships of PAS with hypothesized correlates from Study 3 in Table 10.

Regression analyses. I conducted hierarchical regression analyses to examine whether PAS explained unique variance in the Study 3 external variables after the effect of IDS was controlled for. In Step 1 of each analysis, I regressed the criterion variables onto IDS; in Step 2, I added PAS as a predictor. I found that PAS explained unique variance in 13 out of 18 external variables after the effect of IDS was controlled for. For example, PAS explained unique variance in boredom (6%) organizational deviant behavior (4%), self-control (4%), anger (3%), conscientiousness (2%), agreeableness (2%), interpersonal conflict (2%), and role ambiguity (2%). In Table 11, I reported how much unique variance in each of the Study 3 external

variables was explained by PAS after the effect of IDS was controlled for. I then conducted an item analysis that analyzed mean, standard deviation (SD), skewness, and kurtosis for each of the 49 items (see Table 12). Based on these criteria, I found no unusual item.

Next, I conducted another hierarchical regression analysis to examine whether IDS explained unique variance in the Study 3 external variables after the effect of PAS was controlled for. The purpose of this analysis was to examine whether PAS or IDS was a better scale of assessing perpetrator workplace aggression in terms of their usefulness. I found that IDS explained unique variance in nine of 18 external variables after the effect of PAS was controlled for (see Table 13). As the first hierarchical regression analysis found that PAS explained unique variance in 13 out of 18 external variables after the effect of IDS was controlled for, I concluded that the PAS was a better scale of assessing perpetrator workplace aggression in terms of its usefulness.

I also found that PAS explained unique variance in all personality traits (i.e., neuroticism, conscientiousness, agreeableness, trait anger, trait self-control, and honesty-humility) after the effect of IDS was controlled for, while IDS explained unique variance in only two of six personality traits (i.e., agreeableness and trait anger) after the effect of PAS was controlled for (see Table 13). Finally, I found that IDS explained unique variance in two (i.e., organizational constraints and interpersonal conflict) of four work stressors after the effect of PAS was controlled for. Though PAS explained unique variance in two (i.e., interpersonal conflict and role ambiguity) of four work stressors after the effect of IDS was controlled for, the amount of explained variance is lower than the amount of explained variance by IDS after the effect of PAS was controlled for. Later, I conducted another regression analysis to determine whether dispositional predictors (i.e., conscientiousness, neuroticism, agreeableness, trait anger, self-

control, honesty-humility, and negative work-related emotion) or situational predictors (i.e., global job satisfaction, organizational commitment, satisfaction with coworker, turnover intention, frustration, boredom, organizational constraints, interpersonal conflict, role ambiguity, and role conflict) or both are strongly related to perpetrator workplace aggression. Based on the value of standardized coefficient β (see Table 14), I found that situational predictors were more strongly related than dispositional predictors to perpetrator workplace aggression.

Study 3: Discussion

This study investigated the construct-validity of PAS by developing a nomological network (see Cronbach & Meehl, 1955) describing PAS's hypothesized relationships with external variables. The statistically analyzed relationships of the five sets of external variables (i.e., workplace deviant behavior, job attitudes, personality traits, emotional responses, and work stressors) showed consistency with their hypothesized relationships with PAS, except the organizational commitment of employees, one of the job attitudes. This job attitude showed a positive correlation with PAS, while it was hypothesized to have a negative correlation. I then looked at its relationships with other external variables and found those relationships were consistent; for example, it showed positive correlation with global job satisfaction, satisfaction with coworkers, and agreeableness, while negative correlation with frustration, role conflict, and turnover intention. One of the possible reasons may be that perpetrators' positive organizational commitment brings them to work on a regular basis, which later paves the path to show aggressive behavior at work. Noteworthy, perpetrators organizational commitment barely showed direct aggressive behavior towards organization.

The high correlations of PAS with IDS and ODS were expected as perpetrators have the same functional similarity that they want to harm either individuals at work or organizations

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(Bennett & Robinson, 2000; Marcus et al., 2016). Another reason for the high correlation between PAS and IDS may be the inclusion of IDS's seven content areas of perpetrator workplace aggression in the 24 content areas of PAS. PAS's high correlation with anger was also expected as perpetrator workplace aggression represents a narrower part of anger, which is a broad tendency to act aggressively (see Booth & Mann, 2005; Douglas & Martinko, 2001). Perpetrators high in trait anger are more likely to show frequent workplace aggression as they have strong tendency to find situations as anger-provoking (Hershcovis et al., 2007; Spielberger, 1991). PAS's high correlations with organizational constraint and interpersonal conflict may be a result of a higher level of stress that perpetrators experience because of different types of organizational constraints (Bowling et al., 2022; Fox et al., 2001; Spector & Jex, 1998). According to the Stressor-Emotion Model of CWBs (Spector & Fox, 2005), perpetrators might experience different types of organizational constraints more stressful and develop negative emotion (e.g., anger; Spector, 1998), which lead them to lose temper, and subsequently, engage in interpersonal conflict with people at work. Finally, the high correlation of PAS with negative work-related emotion was also expected as Spector and colleagues (e.g., Fox et al, 2001; Penny & Spector, 2005; Spector & Fox, 2005; Spector and Jex; Spector et al., 2006) found that employees who frequently experience negative work-related emotion are more likely to engage in CWBs. They suggested that employees with a higher level of negative affectivity experience negative work-related emotion more frequently, which develops higher level of stress over time, and finally results in engagement in CWBs.

This study also investigated whether PAS explained unique variance in criterion variables after the effect of IDS was controlled for. I found that PAS explained unique variance in the manner implied by the nomological network for 13 of 18 criterion variables (see Table 11). The

usefulness of PAS was expected to be higher as items of this scale assess both dispositional factors and situational factors that predict perpetrator workplace aggression. As situational predictors were more strongly related to perpetrator workplace aggression, it supports the situation-based causes of CWB (Jex & Britt, 2014). Research found that opportunity (Marcus & Schuler, 2004), norms (Martocchio, 1994), unsafe behavior (Clarke, 2006), and abusive behavior (Sliter et al., 2013) are consistently related to some of the CWBs.

In summary, Study 3 provided evidence of the construct validity of PAS. First, PAS was related with the external variables (except organizational commitment) in the manner it was predicted in the nomological network. Second, PAS was more strongly related with IDS than with ODS. Finally, PAS explained unique variance in several criterion variables from the nomological network.

General Discussion

This research found that (a) the perpetrator workplace aggression was a uni-dimensional construct from the perspective of a multi-dimensional approach, (2) the predictor items showed a very high level of positive correlation between them, and (3) the general factor concept was more clearly established for a complex model. In addition, it developed a PAS with 24 different content areas and their respective items, which may overcome the lack of content-related validity of the IDS (Bennett & Robinson, 2000) and more accurately assess perpetrator workplace aggression with a higher level of content-related validity. It also provided evidence that this PAS has a higher level of construct validity as it yielded a pattern of relationships with a larger set of external variables that matched the pattern described in the nomological network. Finally, it provided evidence that this PAS has other desirable psychometrics properties (e.g., it showed a very high level of internal-consistency reliability and predicted important work-related criteria).

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Even though PAS showed a very high correlation with IDS ($r = .91$) and ODS ($r = .87$), it is an important contribution to the literature as it has more implications than either IDS or ODS. In comparison to IDS (a 7-item scale), PAS shows that perpetrators may display their workplace aggression to individuals in additional 42 different ways. For example, a perpetrator may engage in workplace aggression by reminding a coworker about his or her past mistakes and failures at work. Similarly, perpetrators may display their workplace aggression to organizations in additional 37 different ways than that of ODS (a12-item scale). For example, a perpetrator may engage in workplace aggression by blaming someone for an error he or she made. If this someone is an employee, he or she may experience interpersonal conflict (see Spector & Jex, 1998), job dissatisfaction and turnover intention (see Bowling & Hammond, 2008), which may result in poorer job performance, which in turn affects organizational productivity. If this someone is a customer or client, it is more likely that this customer or client is not coming back to buy products or services from the organization.

Implication

First, the PAS can provide insights into the nature of perpetrator workplace aggression, which may help researchers better understand the fundamental characteristics of this construct. Second, it can provide practitioners with specific, actionable information that could be used to guide organizations to minimize perpetrator workplace aggression.

Limitation

I should mention a few limitations of this study. First, I collected data using a set of self-report measures. Using only the self-report measures may produce inflated correlations, particularly if socially desirable responding contaminates the measures. Thus, the common-method variance (CMV) may have influenced the results. However, Spector (2006) found that

the problem of CMV is generally overstated. In addition, perhaps the best way of measuring the

variables of this study is the use of self-report measures as they assess internal psychological

states of perpetrators. To reduce CMV, I measured study variables using different scale

properties (e.g., scale type, number of scale points, anchor labels; see Feldman & Lynch 1988;

Kothandapani, 1971; Podsakoff et al., 2012), made scale items simple, specific, and concise

(Krosnick, 1991; Podsakoff et al.), and balanced positive and negative items of the scales

(Baumgartner & Steenkamp, 2001; Podsakoff et al.). Second, I recruited the participants through

Amazon Mechanical Turk (MTurk). However, datasets collected through commercial online

panel data (OPD; e.g., MTurk) show similar psychometric properties and produce criterion

validities just like the datasets collected from more traditional ways (e.g., in-person surveys;

Walter et al., 2019). Besides, MTurk participants are more anonymous than participants from

other traditional ways. As Berry et al. (2012) found that anonymity is critical when using self-

reports to assess CWB, my research may have provided better CWB data. Third, I used cross-

sectional data for each of the studies. Cross-sectional data do not allow to examine causal

relationship between variables under consideration (Hill & Hansen, 1991). Therefore, although

perpetrator workplace aggression showed statistically significant relationships with other study

variables, I was in fact only able to show that these variables were correlated.

Future Research

As cross-sectional data disallowed us from examining the causal relationships (Hill &

Hansen, 1991), one line of future research should focus on longitudinal studies using the PAS.

Another line of future research should investigate the convergent and divergent validity of the

PAS using multiple studies rather than a single study (Spector & Jex, 1998). This is because

multiple studies provide more accurate estimation of relations among constructs. Another line of

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future research should focus on PAS's test-retest reliability as it implies the internal validity and stability over time of a newly formed measure (Kenny, 1975). Since all three studies used Amazon MTurk samples collected online, in-person organizational samples should be considered for another line of future research to investigate how reliable and valid results this PAS can produce when there are in-person participants. Finally, using the PAS to collect supervisor-reported CWB data might also be worthwhile in a future study as it is a frequently used strategy to address CMV (see Podsakoff et al., 2003; Podsakoff & Organ, 1986; Spector, 2006).

Summary

Previous research overlooked the necessity of an improved perpetrator workplace aggression scale with a higher level of content-related and construct-related validity. As a result, I conducted this current research to develop and validate the new scale, PAS. Across a series of three studies, I found statistical support for a higher level of content-related and construct-related validity of PAS. I therefore recommend its use in future research addressing perpetrator workplace aggression.

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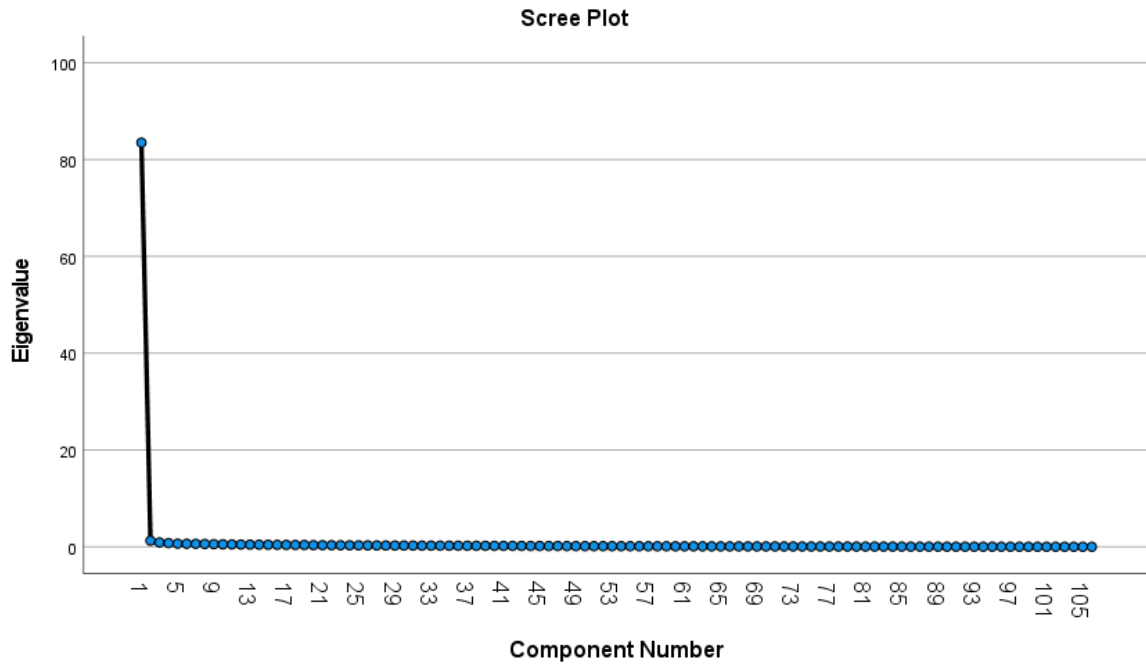
Figure 1. The scree plot after running the EFA for all the 106 items.

Table 1

Items of interpersonal deviance scale (Bennett & Robinson, 2000) and their possible dimensions.

Interpersonal Deviance Scale (Bennett & Robinson, 2000)	Possible Dimensions
Made fun of someone at work	1. Verbal abuse 2. Unwanted joke
Said something hurtful to someone at work	1. Work-specific verbal abuse 2. Verbal abuse 3. Blaming
Made an ethnic, religious, or racial remark at work	1. Demographic-specific verbal abuse 2. Verbal abuse 3. Invasion of privacy
Cursed at someone at work	1. Swearing 2. Verbal abuse 3. Work-specific verbal abuse
Played a mean prank on someone at work	1. Demographic-specific verbal abuse 2. Unwanted joke

	3. Verbal abuse
Acted rudely toward someone at work	1. Workplace violence: Threats of physical violence
	2. Verbal abuse
	3. Workplace violence: Actual physical violence
Publicly embarrassed someone at work	1. Demographic-specific verbal abuse
	2. Social manipulation
	3. Invasion of privacy
	4. Verbal abuse
	5. Work-specific verbal abuse
	6. Interchangeable with the fifth item, "Played a mean prank on someone at work"

Table 2

24 Sub-dimensions and their respective items with item total correlation.

Sub-dimensions	Item Total Correlation
Omnibus Abuse (All-encompassing abuse items with ambiguous content.)	
1. While at work, I hurt someone's feelings.	.852
2. While at work, I was rude to someone.	**.853**
3. While at work, I made someone feel incompetent.	**.861**
4. While at work, I was mean to someone.	.819
Verbal Abuse (General verbal Abuse Subtheme: All-encompassing verbal abuse items with ambiguous content.)	
1. While at work, I said something hurtful to someone.	.880
2. While at work, I criticized or insulted someone.	**.884**
3. While at work, I started an argument with someone.	.857
4. While at work, I made fun of someone.	.831
5. While at work, I made demeaning remarks about someone.	.873
6. While at work, I put someone down.	**.889**
7. While at work, I addressed someone unprofessionally.	.831
Personal Verbal Abuse (Perpetrator makes fun of victim's personal life or criticizes victim's personal characteristics [e.g., personality, physical appearance].	
1. While at work, I made negative comments about someone's personality.	.867
2. While at work, I made negative comments about someone's appearance.	**.883**
3. While at work, I made negative comments about someone's intelligence.	.880
4. While at work, I made negative comments about someone's private life.	**.882**

Work-Specific Verbal Abuse (Perpetrator reminds victim of his or her past work mistakes or criticizes victim's job performance.)	
1. While at work, I reminded a coworker about his or her past mistakes and failures.	**.872**
2. While at work, I insulted a coworker about his or her job performance.	**.878**
3. While at work, I made negative comments about a coworker's job knowledge.	.870
4. While at work, I made negative comments about a coworker's expertise.	.864
5. While at work, I unhelpfully criticized the way a coworker handled things on the job.	.866
Demographic-Specific Verbal Abuse (Verbal abuse that makes reference to the victim's race, ethnicity, religion, sexual orientation, nationality, disability, or political beliefs.)	
1. While at work, I attacked someone's political beliefs.	.882
2. While at work, I attacked someone's religious belief.	.902
3. While at work, I made a racial remark about someone.	.900
4. While at work, I made an ethnic remark about someone.	**.909**
5. While at work, I made negative comments about someone's disability.	.903
6. While at work, I made negative comments about someone's sexual orientation.	**.905**
Swearing (Perpetrator swears directly at victim.)	
1. While at work, I swore at someone.	**.816**
2. While at work, I cursed at someone.	**.816**
Yelling (Perpetrator yells or uses an aggressive tone when speaking to victim.)	
1. While at work, I yelled at someone.	.866
2. While at work, I raised my voice while speaking to someone.	.869
3. While at work, I spoke to someone in an aggressive tone.	**.891**
4. While at work, I shouted at someone.	**.876**
Work-specific Doubted Competence (Perpetrator expresses doubt in victim's judgment or competence.)	

1. While at work, I doubted someone's judgment on a matter over which he or she had responsibility.	.808
2. While at work, I expected less of someone than others in his or her position.	**.820**
3. While at work, I questioned someone's decisions.	.742
4. While at work, I doubted that someone would perform his or her job the correct way.	**.823**
Blaming (Perpetrator blames victim for another person's work mistakes or accuses victim of intentionally making an error at work.)	
1. While at work, I blamed someone for the mistakes other people made.	.871
2. While at work, I accused someone of deliberately making an error.	**.886**
3. While at work, I blamed someone for an error I made.	**.884**
4. While at work, I blamed someone to save myself from embarrassment.	.874
Social Isolation (Victim is excluded from social interaction or is ignored.)	
1. While at work, I gave someone the "silent treatment."	**.857**
2. While at work, I ignored someone's opinions.	.818
3. While at work, I refused to talk to someone.	.853
4. While at work, I paid little attention to someone's statement.	.721
5. While at work, I excluded someone from important work activities or meetings.	.840
6. While at work, I excluded someone from work-related social gatherings.	**.858**
Social Manipulation (Behavior intended to damage victim's interpersonal relationships within the workplace.)	
1. While at work, I talked badly about someone behind his or her back.	.849
2. While at work, I spread rumors about someone.	**.913**
3. While at work, I belittled someone's opinions in front of other.	.906
4. While at work, I did something to make someone look bad.	.896
5. While at work, I lied to get someone in trouble.	.889
6. While at work, I turned other coworkers against someone.	**.913**

Failing to Protect from Harm (Perpetrator fails to defend victim from verbal abuse or physical danger.)	
1. While at work, I did not defend someone when other people spoke poorly of him or her.	.803
2. While at work, I failed to correct false information about someone.	.849
3. While at work, I failed to protect someone from harm.	**.850**
4. While at work, I failed to warn someone about an impending danger.	**.880**
Lying (Perpetrator breaks promises or gives incorrect information to the victim.)	
1. While at work, I lied to someone.	.804
2. While at work, I gave someone incorrect information about his or her job.	**.839**
3. While at work, I broke promises I made to someone.	**.832**
General Obstructionism (Perpetrator creates conditions that inhibit the victim's job performance.)	
1. While at work, I delayed work to make someone look bad or slow someone down.	.911
2. While at work, I withheld information, which affected someone's performance.	**.913**
3. While at work, I withheld resources, which affected someone's performance.	**.913**
4. While at work, I sabotaged someone's work.	.904
5. While at work, I refused to help someone.	.851
6. While at work, I undermined someone's effort to be successful on the job.	**.922**
7. While at work, I purposely interfered with someone doing his/her job.	.899
8. While at work, I hid something so someone at work couldn't find it.	.873
9. While at work, I avoided returning a phone call to someone at work, which affected his or her job performance.	.892
Restricting Communication (Perpetrator prevents victim from speaking.)	
1. While at work, I interrupted someone when he or she was speaking.	.788
2. While at work, I restricted someone's opportunity to speak.	**.868**
3. While at work, I interrupted someone while he or she was speaking on the telephone.	.821

4. While at work, I prevented someone from expressing his or her opinions or thoughts.	**.839**
Withheld Credit (Perpetrator ignores victim's work contributions or takes credit for victim's contributions.)	
1. While at work, I did not give someone credit for jobs requiring a lot of effort.	.799
2. While at work, I took credit for someone's work or ideas.	**.832**
3. While at work, I ignored someone's contributions.	**.841**
Invasion of Privacy (Perpetrator shares victim's personal information or engages in unwanted involvement in victim's personal life.)	
1. While at work, I invaded someone's privacy.	.902
2. While at work, I read communications addressed to someone, such as e-mails or faxes.	.897
3. While at work, I opened someone's desk drawers without prior permission.	.898
4. While at work, I publicly discussed someone's confidential personal information.	.893
5. While at work, I threatened to reveal private information about someone to others.	**.904**
6. While at work, I told someone how to manage his or her personal life.	.869
7. While at work, I made unwanted attempts to draw someone into a discussion of personal matters.	**.903**
Unwanted Jokes (Perpetrator plays mean prank on victim.)	
1. While at work, I played a mean prank on someone.	**.827**
2. While at work, I made jokes about someone's race, ethnicity, religion, or nationality.	**.827**
Aggressive Gesture (Perpetrator engages in aggressive facial expression or aggressive gestures.)	
1. While at work, I rolled my eyes at someone.	.818
2. While at work, I made offensive gestures at someone.	**.879**
3. While at work, I directed an obscene gesture (e.g., "gave the finger") at someone.	**.876**
4. While at work, I showed hostile body language toward someone.	.872
5. While at work, I imitated a person's gait, voice, or gestures.	.870
Harming Property (Abusive behavior directed at victim's property.)	

1. While at work, I threatened someone with property damage.	**.891**
2. While at work, I defaced or damaged someone's personal property.	**.901**
3. While at work, I destroyed someone's property belonging.	.887
Theft (Abusive behavior directed at victim's property.)	
1. While at work, I took items from someone's desk without prior permission.	**.804**
2. While at work, I stole someone's personal property.	**.804**
Sexual Aggression (Perpetrator engages in verbal or physical abuse with sexualized content.)	
1. While at work, I made unwanted attempts to touch, fondle, kiss, or grab someone.	.873
2. While at work, I made sexist remarks.	**.879**
3. While at work, I made sexual approaches and sexual offers.	.872
4. While at work, I committed sexual violence.	**.902**
Workplace Violence: Threats of Physical Violence Subtheme (Perpetrator threatens victim with physical harm.)	
1. While at work, I threatened someone with a weapon.	**.843**
2. While at work, I threatened someone with physical violence.	**.843**
Workplace Violence: Actual Physical Violence Subtheme (Perpetrator engages in some form of physical abuse, such as hitting, throwing objects, or spitting.)	
1. While at work, I threw objects at someone.	.878
2. While at work, I spat on someone.	**.909**
3. While at work, I bit someone.	.896
4. While at work, I hit or kicked someone.	**.917**
5. While at work, I aggressively grabbed someone.	.905
6. While at work, I pushed or punched someone.	.901

Note. Total 106 items

Table 3

24 Sub-dimensions and 49 items with their item total correlations, determinant, bartlett's (1954)

test of sphericity, Cronbach alpha, and the explained variance in perpetrator workplace

aggression.

Sub-dimension and items	Item total correlation	Determinant of 49 items	Bartlett's (1954) test: 49 items	Cronbach Alpha of 49 items	Variance Explained by 49 items
Omnibus Abuse					
1. While at work, I made someone feel incompetent.	.861	1.011E-37	$\chi 2 =$ 21537.438	.99	81.002%
2. While at work, I was rude to someone.	.853		$p = .000$		
Verbal Abuse					
1. While at work, I put someone down.	.889				
2. While at work, I criticized or insulted someone.	.884				
Personal Verbal Abuse					
1. While at work, I made negative comments about someone's appearance.	.883				
2. While at work, I made negative comments about someone's private life.	.882				
Work-Specific Verbal Abuse					
1. While at work, I insulted a coworker about his or her job performance.	.878				

2. While at work, I reminded a coworker about his or her past mistakes and failures.	.872				
Demographic-Specific Verbal Abuse					
1. While at work, I made an ethnic remark about someone.	.909				
2. While at work, I made negative comments about someone's sexual orientation.	.905				
Swearing					
1. While at work, I swore at someone.	.816				
2. While at work, I cursed at someone.	.816				
Yelling					
1. While at work, I spoke to someone in an aggressive tone.	.891				
2. While at work, I shouted at someone.	.876				
Work-specific Doubted Competence					
1. While at work, I doubted that someone would perform his or her job the correct way.	.823				
2. While at work, I expected less of someone than others in his or her position.	.820				

Blaming					
1. While at work, I accused someone of deliberately making an error.	.886				
2. While at work, I blamed someone for an error I made.	.884				
Social Isolation					
1. While at work, I excluded someone from work-related social gatherings.	.858				
2. While at work, I gave someone the "silent treatment."	.857				
Social Manipulation					
1. While at work, I spread rumors about someone.	.913				
2. While at work, I turned other coworkers against someone.	.913				
Failing to Protect from Harm					
1. While at work, I failed to warn someone about an impending danger.	.880				
2. While at work, I failed to protect someone from harm.	.850				
Lying					
1. While at work, I gave someone incorrect information about his or her job.	.839				

2. While at work, I broke promises I made to someone.	.832				
General Obstructionism					
1. While at work, I undermined someone's effort to be successful on the job.	.922				
2. While at work, I withheld information, which affected someone's performance.	.913				
3. While at work, I withheld resources, which affected someone's performance.	.913				
Restricting Communication					
1. While at work, I restricted someone's opportunity to speak.	.868				
2. While at work, I prevented someone from expressing his or her opinions or thoughts.	.839				
Withheld Credit					
1. While at work, I ignored someone's contributions.	.841				
2. While at work, I took credit for someone's work or ideas.	.832				
Invasion of Privacy					

1. While at work, I threatened to reveal private information about someone to others.	.904				
2. While at work, I made unwanted attempts to draw someone into a discussion of personal matters.	.903				
Unwanted Jokes					
1. While at work, I played a mean prank on someone.	.827				
2. While at work, I made jokes about someone's race, ethnicity, religion, or nationality.	.827				
Aggressive Gesture					
1. While at work, I made offensive gestures at someone.	.879				
2. While at work, I directed an obscene gesture (e.g., "gave the finger") at someone.	.876				
Harming Property					
1. While at work, I defaced or damaged someone's personal property.	.901				
2. While at work, I threatened someone with property damage.	.891				

Theft					
1. While at work, I took items from someone's desk without prior permission.	.804				
2. While at work, I stole someone's personal property.	.804				
Sexual Aggression					
1. While at work, I committed sexual violence.	.902				
2. While at work, I made sexist remarks.	.879				
Workplace Violence: Threats of Physical Violence					
1. While at work, I threatened someone with a weapon.	.843				
2. While at work, I threatened someone with physical violence.	.843				
Workplace Violence: Actual Physical Violence					
1. While at work, I hit or kicked someone.	.917				
2. While at work, I spat on someone.	.909				

Table 4 (Study 1)

Item analysis of 49 items of the PAS

Item	Mean	Standard deviation	Skewness-statistics	Skewness-std. error	Kurtosis-statistics	Kurtosis – std. error
Omnibus Abuse						
1. While at work, I made someone feel incompetent.	4.033	1.9988	-.324	.148	-1.263	.295
2. While at work, I was rude to someone.	3.815	2.1402	-.135	.148	-1.470	.295
Verbal Abuse						
1. While at work, I put someone down.	3.937	2.0709	-.235	.148	-1.340	.295
2. While at work, I criticized or insulted someone.	3.778	2.0982	-.139	.148	-1.450	.295
Personal Verbal Abuse						
1. While at work, I made negative comments about someone's appearance.	3.808	2.1047	-.155	.148	-1.411	.295
2. While at work, I made negative comments about someone's private life.	3.733	2.0265	-.186	.148	-1.402	.295
Work-Specific Verbal Abuse						
1. While at work, I insulted a coworker about his or her job performance.	3.833	2.0687	-.159	.148	-1.416	.295
2. While at work, I reminded a coworker about his or her past mistakes and failures.	3.863	2.1081	-.199	.148	-1.424	.295
Demographic-Specific Verbal Abuse						

1. While at work, I made an ethnic remark about someone.	3.808	2.1722	-.232	.148	-1.505	.295
2. While at work, I made negative comments about someone's sexual orientation.	3.672	2.1941	-.091	.148	-1.537	.295
Swearing						
1. While at work, I swore at someone.	3.814	2.1280	-.217	.148	-1.487	.295
2. While at work, I cursed at someone.	3.820	2.1338	-.194	.148	-1.464	.295
Yelling						
1. While at work, I spoke to someone in an aggressive tone.	3.845	2.0830	-.151	.148	-1.377	.295
2. While at work, I shouted at someone.	3.836	2.1106	-.192	.148	-1.398	.295
Work-specific Doubted Competence						
1. While at work, I doubted that someone would perform his or her job the correct way.	4.015	1.9925	-.298	.148	-1.274	.295
2. While at work, I expected less of someone than others in his or her position.	3.993	1.9051	-.210	.148	-1.100	.295
Blaming						
1. While at work, I accused someone of deliberately making an error.	3.745	2.1356	-.140	.148	-1.522	.295
2. While at work, I blamed someone for an error I made.	3.804	2.1488	-.171	.148	-1.460	.295
Social Isolation						

1. While at work, I excluded someone from work-related social gatherings.	3.915	2.0157	-.277	.148	-1.331	.295
2. While at work, I gave someone the "silent treatment."	3.807	2.1011	-.110	.148	-1.368	.295
Social Manipulation						
1. While at work, I spread rumors about someone.	3.768	2.1827	-.154	.148	-1.581	.295
2. While at work, I turned other coworkers against someone.	3.756	2.1925	-.089	.148	-1.527	.295
Failing to Protect from Harm						
1. While at work, I failed to warn someone about an impending danger.	3.793	2.1485	-.092	.148	-1.460	.295
2. While at work, I failed to protect someone from harm.	3.716	2.1834	-.041	.148	-1.497	.295
Lying						
1. While at work, I gave someone incorrect information about his or her job.	3.576	2.1363	-.008	.148	-1.517	.295
2. While at work, I broke promises I made to someone.	3.875	2.1044	-.215	.148	-1.428	.295
General Obstructionism						
1. While at work, I undermined someone's effort to be successful on the job.	3.740	2.1272	-.114	.148	-1.477	.295
2. While at work, I withheld information, which affected someone's performance.	3.768	2.1878	-.115	.148	-1.528	.295

3. While at work, I withheld resources, which affected someone's performance.	3.753	2.1208	-.191	.148	-1.510	.295
Restricting Communication						
1. While at work, I restricted someone's opportunity to speak.	3.825	2.1899	-.146	.148	-1.510	.295
2. While at work, I prevented someone from expressing his or her opinions or thoughts.	3.812	2.1477	-.127	.148	-1.482	.295
Withheld Credit						
1. While at work, I ignored someone's contributions.	3.870	2.1794	-.174	.148	-1.480	.295
2. While at work, I took credit for someone's work or ideas.	3.862	2.0816	-.143	.148	-1.371	.295
Invasion of Privacy						
1. While at work, I threatened to reveal private information about someone to others.	3.720	2.1105	-.110	.148	-1.458	.295
2. While at work, I made unwanted attempts to draw someone into a discussion of personal matters.	3.763	2.0788	-.166	.148	-1.401	.295
Unwanted Jokes						
1. While at work, I played a mean prank on someone.	3.784	2.0794	-.195	.148	-1.419	.295
2. While at work, I made jokes about someone's race, ethnicity, religion, or nationality.	3.675	2.2056	-.081	.148	-1.593	.295

Aggressive Gesture						
1. While at work, I made offensive gestures at someone.	3.647	2.1887	-.018	.148	-1.563	.295
2. While at work, I directed an obscene gesture (e.g., "gave the finger") at someone.	3.720	2.1522	-.082	.148	-1.495	.295
Harming Property						
1. While at work, I defaced or damaged someone's personal property.	3.667	2.1909	-.048	.148	-1.538	.295
2. While at work, I threatened someone with property damage.	3.600	2.2151	-.004	.148	-1.585	.295
Theft						
1. While at work, I took items from someone's desk without prior permission.	3.712	2.1837	-.083	.148	-1.564	.295
2. While at work, I stole someone's personal property.	3.654	2.1403	-.100	.148	-1.537	.295
Sexual Aggression						
1. While at work, I committed sexual violence.	3.680	2.2014	-.081	.148	-1.562	.295
2. While at work, I made sexist remarks.	3.708	2.2228	-.103	.148	-1.567	.295
Workplace Violence: Threats of Physical Violence						
1. While at work, I threatened someone with a weapon.	3.633	2.2433	-.040	.148	-1.622	.295

2. While at work, I threatened someone with physical violence.	3.719	2.2116	-.064	.148	-1.535	.295
Workplace Violence: Actual Physical Violence						
1. While at work, I hit or kicked someone.	3.615	2.1585	-.034	.148	-1.561	.295
2. While at work, I spat on someone.	3.708	2.1987	-.112	.148	-1.560	.295

Table 5

Confirmatory factor analysis of the PAS (Study 2)

Model	$\chi2$	df	CFI (> .95; fit)	RMSEA (<.06; fit)	SRMR (< 0.08; fit)
1	2880.076	1127	0.920 (unfit)	0.068 (unfit)	0.024 (fit)
2	1446.875	710	0.964 (fit)	0.055 (fit)	0.018 (fit)
3	1485.384	686	0.961 (fit)	0.059 (fit)	0.018 (fit)

Note. $N = 337$. Model 1= all items directly loaded onto PAS; Model 2 = respective items were

loaded onto their respective sub-dimensions; Model 3 = respective items were first loaded onto

their respective sub-dimensions, then all the sub-dimensions were loaded onto PAS.

Table 6

Confirmatory factor analysis of the PAS (Study 2)

Models	$\Delta\chi2$	Δdf	*p-value*	Decision
1 and 2	1433.2	417	< 2.2e-16 ***	Model 2 fits better
1 and 3	1394.7	441	< 2.2e-16 ***	Model 3 fits better
2 and 3	-38.509	24	0> 1	Model 3 fits better

Note. $N = 337$. Model 1= all items directly loaded onto PAS; Model 2 = respective items were

loaded onto their respective sub-dimensions; Model 3 = respective items were first loaded onto

their respective sub-dimensions, then all the sub-dimensions were loaded onto PAS.

Table 7 (Study 2)

Item analysis of 49 items of the PAS

Item	Mean	Standard deviation	Skewness-statistics	Skewness-std. error	Kurtosis-statistics	Kurtosis – std. error
Omnibus Abuse						
1. While at work, I made someone feel incompetent.	3.452	2.0883	.185	.133	-1.400	.265
2. While at work, I was rude to someone.	3.499	2.0297	.170	.133	-1.277	.265
Verbal Abuse						
1. While at work, I put someone down.	3.382	2.1066	.201	.133	-1.432	.265
2. While at work, I criticized or insulted someone.	3.359	2.0699	.217	.133	-1.396	.265
Personal Verbal Abuse						
1. While at work, I made negative comments about someone's appearance.	3.294	2.0902	.227	.133	-1.451	.265
2. While at work, I made negative comments about someone's private life.	3.300	2.0808	.202	.133	-1.472	.265
Work-Specific Verbal Abuse						
1. While at work, I insulted a coworker about his or her job performance.	3.341	2.1042	.230	.133	-1.401	.265
2. While at work, I reminded a coworker about his or her past mistakes and failures.	3.469	2.0557	.154	.133	-1.382	.265
Demographic-Specific Verbal Abuse						

1. While at work, I made an ethnic remark about someone.	3.361	2.1542	.257	.133	-1.404	.265
2. While at work, I made negative comments about someone's sexual orientation.	3.208	2.1859	.300	.133	-1.489	.265
Swearing						
1. While at work, I swore at someone.	3.418	2.1030	.212	.133	-1.400	.265
2. While at work, I cursed at someone.	3.496	2.1003	.127	.133	-1.447	.265
Yelling						
1. While at work, I spoke to someone in an aggressive tone.	3.501	2.0061	.096	.133	-1.330	.265
2. While at work, I shouted at someone.	3.588	2.0714	.101	.133	-1.339	.265
Work-specific Doubted Competence						
1. While at work, I doubted that someone would perform his or her job the correct way.	3.819	1.9563	-.078	.133	-1.200	.265
2. While at work, I expected less of someone than others in his or her position.	3.611	2.0193	.008	.133	-1.389	.265
Blaming						
1. While at work, I accused someone of deliberately making an error.	3.366	2.0945	.211	.133	-1.417	.265
2. While at work, I blamed someone for an error I made.	3.342	2.1337	.248	.133	-1.410	.265
Social Isolation						

1. While at work, I excluded someone from work-related social gatherings.	3.443	2.1248	.123	.133	-1.490	.265
2. While at work, I gave someone the "silent treatment."	3.522	2.0267	.136	.133	-1.323	.265
Social Manipulation						
1. While at work, I spread rumors about someone.	3.312	2.2161	.294	.133	-1.495	.265
2. While at work, I turned other coworkers against someone.	3.164	2.0193	.274	.133	-1.390	.265
Failing to Protect from Harm						
1. While at work, I failed to warn someone about an impending danger.	3.223	2.0675	.279	.133	-1.412	.265
2. While at work, I failed to protect someone from harm.	3.286	2.1203	.305	.133	-1.360	.265
Lying						
1. While at work, I gave someone incorrect information about his or her job.	3.261	2.1276	.295	.133	-1.400	.265
2. While at work, I broke promises I made to someone.	3.396	2.0121	.193	.133	-1.312	.265
General Obstructionism						
1. While at work, I undermined someone's effort to be successful on the job.	3.335	2.0810	.191	.133	-1.416	.265
2. While at work, I withheld information, which affected someone's performance.	3.298	2.0545	.189	.133	-1.418	.265

3. While at work, I withheld resources, which affected someone's performance.	3.394	2.1464	.152	.133	-1.539	.265
Restricting Communication						
1. While at work, I restricted someone's opportunity to speak.	3.345	2.0456	.169	.133	-1.406	.265
2. While at work, I prevented someone from expressing his or her opinions or thoughts.	3.449	2.1305	.162	.133	-1.483	.265
Withheld Credit						
1. While at work, I ignored someone's contributions.	3.255	2.0060	.251	.133	-1.328	.265
2. While at work, I took credit for someone's work or ideas.	3.334	2.1245	.223	.133	-1.444	.265
Invasion of Privacy						
1. While at work, I threatened to reveal private information about someone to others.	3.309	2.1519	.205	.133	-1.555	.265
2. While at work, I made unwanted attempts to draw someone into a discussion of personal matters.	3.249	2.1347	.316	.133	-1.407	.265
Unwanted Jokes						
1. While at work, I played a mean prank on someone.	3.357	2.1179	.260	.133	-1.383	.265
2. While at work, I made jokes about someone's race, ethnicity, religion, or nationality.	3.243	2.1237	.272	.133	-1.442	.265

Aggressive Gesture						
1. While at work, I made offensive gestures at someone.	3.264	2.1097	.257	.133	-1.439	.265
2. While at work, I directed an obscene gesture (e.g., "gave the finger") at someone.	3.377	2.1347	.164	.133	-1.482	.265
Harming Property						
1. While at work, I defaced or damaged someone's personal property.	3.261	2.1678	.271	.133	-1.497	.265
2. While at work, I threatened someone with property damage.	3.122	2.1297	.322	.133	-1.463	.265
Theft						
1. While at work, I took items from someone's desk without prior permission.	3.304	2.1094	.248	.133	-1.414	.265
2. While at work, I stole someone's personal property.	3.202	2.2175	.349	.133	-1.428	.265
Sexual Aggression						
1. While at work, I committed sexual violence.	3.128	2.2009	.369	.133	-1.476	.265
2. While at work, I made sexist remarks.	3.187	2.2034	.371	.133	-1.412	.265
Workplace Violence: Threats of Physical Violence						
1. While at work, I threatened someone with a weapon.	3.258	2.2589	.303	.133	-1.540	.265

2. While at work, I threatened someone with physical violence.	3.234	2.1647	.241	.133	-1.531	.265
Workplace Violence: Actual Physical Violence						
1. While at work, I hit or kicked someone.	3.157	2.1288	.285	.133	-1.528	.265
2. While at work, I spat on someone.	3.246	2.0821	.198	.133	-1.507	.265

Table 8

Descriptive statistics of study variables (correlations)

	PAS	IDS	ODS	GJS	OCOM	SWCO	TI	NEU	CONS	AGR
PAS	-------	.91**	.87**	-.12	.16**	-.28**	.56**	.45**	-.57**	-.62**
IDS	.91**	-------	.86**	-.11	.17**	-.28**	.56**	.44**	-.56**	-.61**
ODS	.87**	.86**	-------	-.18**	.08	-.31**	.57**	.46**	-.52**	-.56**
GJS	-.12	-.11	-.18**	-------	.68**	.57**	-.57**	-.42**	.24**	.33**
OCOM	.16**	.17**	.08	.68**	-------	.54**	-.31**	-.25**	.13*	.24**
SWCO	-.28**	-.28**	-.31**	.57**	.54**	-------	-.57**	-.48**	.37**	.50**
TI	.56**	.56**	.57**	-.57**	-.31**	-.57**	-------	.60**	-.44**	-.54**
NEU	.45**	.44**	.46**	-.42**	-.25**	-.48**	.60**	-------	-.60**	-.55**
CONS	-.57**	-.56**	-.52**	.24**	.14**	.37**	-.44**	-.60**	-------	.57**
AGR	-.62**	-.61**	-.56**	.33**	.24**	.50**	-.54**	-.55**	.57**	-------
ANG	.76**	.75**	.72**	-.29**	-.02	-.36**	.65**	.56**	-.53**	-.67**
SCON	-.67**	-.64**	-.66**	.31**	.11	.44**	-.64**	-.67**	.72**	.63**
HH	-.52**	-.52**	-.50**	.16**	-.01	.41**	-.43**	-.46**	.44**	.57**
NWRE	.66**	.66**	.65**	-.54**	-.25**	-.48**	.73**	.59**	-.46**	-.57**
FRUS	.23**	.23**	.30**	-.59**	-.44**	-.48**	.59**	.46**	-.33**	-.38**
BORE	.60**	.55**	.61**	-.42**	-.23**	-.49**	.67**	.53**	-.44**	-.52**
MOCS	.71**	.74**	.73**	-.36**	-.13**	-.52**	.73**	.56**	-.51**	-.59**
IC	.83**	.84**	.77**	-.21**	.07	-.38**	.62**	.47**	-.54**	-.62**
RA	.43**	.41**	.45**	-.41**	-.32**	-.50**	.49**	.47**	-.53**	-.45**
RC	.17**	.16*	.21**	-.40**	-.38**	-.46**	.40**	.35**	-.25**	-.29**

Table 8 (Continued)

Descriptive statistics of study variables (correlations)

	ANG	SCON	HH	NWRE	FRUS	BORE	MOCS	IC	RA	RC
PAS	.76**	-.67**	-.52**	.66**	.47**	.60**	.71**	.83**	.43**	.17**
IDS	.75**	-.64**	-.52**	.66**	.47**	.55**	.74**	.84**	.41**	.16*
ODS	.72**	-.66**	-.50**	.65**	.53**	.61**	.73**	.77**	.45**	.21**
GJS	-.29**	.31**	.16**	-.54**	-.51**	-.42**	-.36**	-.21**	-.41**	-.40**
OCOM	-.02	.11	-.01	-.25**	-.28**	-.23**	-.13**	.07**	-.32**	-.38**
SWCO	-.36**	.44**	.41**	-.48**	-.50**	-.45**	-.52**	-.38**	-.50**	-.46**
TI	.65**	-.64**	-.43**	.73**	.70**	.67**	.73**	.62**	.49**	.40**
NEU	.56**	-.67**	-.46**	.59**	.52**	.53**	.56**	.47**	.47**	.35**
CONS	-.53**	.72**	.44**	-.46**	-.44**	-.44**	-.51**	-.55**	-.53**	-.25**
AGR	-.67**	.63**	.57**	-.57**	-.52**	-.52**	-.59**	-.62**	-.45**	-.29**
ANG	-------	-.70**	-.50**	.74**	.57**	.61**	.68**	.75**	.42**	.28**
SCON	-.70**	-------	.54**	-.61**	-.57**	-.59**	-.64**	-.67**	-.45**	-.27**
HH	-.50**	.54**	-------	-.42**	-.46**	-.43**	-.52**	-.52**	-.29**	-.22**
NWRE	.74**	-.61**	-.42**	-------	.64**	.70**	.72**	.68**	.48**	.37**
FRUS	.39**	-.42**	-.34**	.52**	-------	.47**	.51**	.33**	.43**	.47**
BORE	.61**	-.59**	-.43**	.70**	.47**	-------	.64**	.53**	.43**	.25**
MOCS	.68**	-.64**	-.52**	.72**	.51**	.64**	-------	.76**	.58**	.42**
IC	.75**	-.67**	-.52**	.68**	.33**	.53**	.76**	-------	.48**	.28**
RA	.42**	-.45**	-.29**	.48**	.43**	.43**	.58**	.48**	-------	.52**
RC	.28**	-.27**	-.22**	.37**	.47**	.25**	.42**	.28**	.52**	-------

Note. N = 264. PAS = perpetrator aggression scale; IDS = interpersonal deviance scale; ODS =

organizational deviance scale; GJS = global job satisfaction; OCOM = organizational

commitment; SWCO = satisfaction with coworkers; TI = turnover intention; NEU = neuroticism;

CONS = conscientiousness; AGR = agreeableness; ANG = anger; SCON = self-control; HH =

honesty-humility; NWRE = negative work-related emotion; FRUS = frustration; BORE =

boredom; MOCS = Multi-facet Organizational Constraints; IC = interpersonal conflict; RA =

role ambiguity; RC = role conflict. *p<.05; **p<.01.

Table 9

Descriptive statistics of study variables (mean, SD, and Cronbach alpha)

Variable	Mean	SD	Cronbach Alpha (α)
PAS	2.83	1.80	.99
IDS	2.95	1.92	.96
ODS	3.04	1.76	.96
GJS	4.96	1.50	.74
OCOM	4.93	1.42	.93
SWCO	4.50	1.12	.68
TI	3.87	1.93	.92
NEU	3.37	1.04	.76
CONS	5.01	1.01	.80
AGR	4.83	1.02	.79
ANG	2.02	0.78	.93
SCON	3.41	0.74	.84
HH	3.15	0.70	.74
NWRE	2.52	1.01	.93
FRUS	4.19	1.77	.87
BORE	3.91	1.70	.92
MOCS	3.67	1.60	.96
IC	2.43	1.15	.90
RA	3.26	1.20	.78
RC	3.86	1.14	.71

Note. *N* = 264. PAS = perpetrator aggression scale; IDS = interpersonal deviance scale; ODS =

organizational deviance scale; GJS = global job satisfaction; OCOM = organizational

commitment; SWCO = satisfaction with coworkers; TI = turnover intention; NEU = neuroticism;

CONS = conscientiousness; AGR = agreeableness; ANG = anger; SCON = self-control; HH =

honesty-humility; NWRE = negative work-related emotion; FRUS = frustration; BORE =

boredom; MOCS = Multi-facet Organizational Constraints; IC = interpersonal conflict; RA =

role ambiguity; RC = role conflict.

Table 10

Hypothesized and analyzed relationships of PAS with hypothesized correlates

Hypothesized correlate	Hypothesized relationship with PAS	Analyzed relationship with PAS
IDS	+	+
ODS	+	+
GJS	-	-
OCOM	-	+
SWCO	-	-
TI	+	+
NEU	+	+
CONS	-	-
AGR	-	-
ANG	+	+
SCON	-	-
HH	-	-
NWRE	+	+
FRUS	+	+
BORE	+	+
MOCS	+	+
IC	+	+
RA	+	+
RC	+	+

Note. $N = 264$. PAS = perpetrator aggression scale; IDS = interpersonal deviance scale; ODS = organizational deviance scale; GJS = global job satisfaction; OCOM = organizational commitment; SWCO = satisfaction with coworkers; TI = turnover intention; NEU = neuroticism; CONS = conscientiousness; AGR = agreeableness; ANG = anger; SCON = self-control; HH = honesty-humility; NWRE = negative work-related emotion; FRUS = frustration; BORE = boredom; MOCS = Multi-facet Organizational Constraints; IC = interpersonal conflict; RA = role ambiguity; RC = role conflict.

Table 11

Hierarchical regression analyses examining the incremental validity of PAS

Criterion variable	Ordered Predictors	β	Total R^2	ΔR^2
ODS	1. IDS	.40***	.75***	.75***
	2. PAS	.50***	.79***	.04***
GJS	1. IDS	-.01	.01	.01
	2. PAS	-.11	.01	.00
OCOM	1. IDS	.13	.03**	.03**
	2. PAS	.03	.03	.00
SWCO	1. IDS	-.15	.08***	.08***
	2. PAS	-.14	.08	.00
TI	1. IDS	.32*	.32***	.32***
	2. PAS	.27*	.33*	.01*
NEU	1. IDS	.18	.20***	.20***
	2. PAS	.28*	.21*	.01*
CONS	1. IDS	-.24	.32***	.32***
	2. PAS	-.35**	.34**	.02**
AGRE	1. IDS	-.30*	.38***	.38***
	2. PAS	-.34**	.40**	.02**
ANG	1. IDS	.34***	.57***	.57***
	2. PAS	.45***	.60***	.03***
SCON	1. IDS	-.20	.42***	.42***
	2. PAS	-.48***	.46**	.04**

HH	1. IDS	-.26	.27***	.27***
	2. PAS	-.29*	.28*	.01*
NWRE	1. IDS	.40***	.45***	.45***
	2. PAS	.29*	.46*	.01*
FRUS	1. IDS	.21	.22***	.22***
	2. PAS	.28*	.23*	.01*
BORE	1. IDS	.00	.31***	.31***
	2. PAS	.60***	.37***	.06***
MOCS	1. IDS	.56***	.55***	.55***
	2. PAS	.19	.55	.00
IC	1. IDS	.50***	.71***	.71***
	2. PAS	.38***	.73***	.02***
RA	1. IDS	.10	.17***	.17***
	2. PAS	.34*	.19*	.02*
RC	1. IDS	-.02	.03*	.03*
	2. PAS	.20	.03	.00

Note. $N = 264$. PAS = perpetrator aggression scale; IDS = interpersonal deviance scale; ODS = organizational deviance scale; GJS = global job satisfaction; OCOM = organizational commitment; SWCO = satisfaction with coworkers; TI = turnover intention; NEU = neuroticism; CONS = conscientiousness; AGR = agreeableness; ANG = anger; SCON = self-control; HH = honesty-humility; NWRE = negative work-related emotion; FRUS = frustration; BORE = boredom; MOCS = Multi-facet Organizational Constraints; IC = interpersonal conflict; RA = role ambiguity; RC = role conflict. *$p<.05$; **$p<.01$; ***$p<.001$.

Table 12 (Study 3)

Item analysis of 49 items of the PAS

Item	Mean	Standard deviation	Skewness-statistics	Skewness-std. error	Kurtosis-statistics	Kurtosis – std. error
Omnibus Abuse						
1. While at work, I made someone feel incompetent.	2.856	2.0307	.607	.150	-1.057	.299
2. While at work, I was rude to someone.	2.992	1.9402	.442	.150	-1.158	.299
Verbal Abuse						
1. While at work, I put someone down.	3.019	2.1931	.481	.150	-1.346	.299
2. While at work, I criticized or insulted someone.	2.841	2.0107	.613	.150	-1.099	.299
Personal Verbal Abuse						
1. While at work, I made negative comments about someone's appearance.	2.803	2.0356	.583	.150	-1.192	.299
2. While at work, I made negative comments about someone's private life.	2.742	1.9794	.602	.150	-1.165	.299
Work-Specific Verbal Abuse						
1. While at work, I insulted a coworker about his or her job performance.	2.890	2.0634	.521	.150	-1.303	.299
2. While at work, I reminded a coworker about his or her past mistakes and failures.	2.932	2.0140	.451	.150	-1.317	.299
Demographic-Specific Verbal Abuse						

1. While at work, I made an ethnic remark about someone.	2.731	2.0874	.678	.150	-1.115	.299
2. While at work, I made negative comments about someone's sexual orientation.	2.648	2.0583	.679	.150	-1.212	.299
Swearing						
1. While at work, I swore at someone.	2.897	2.0379	.507	.150	-1.240	.299
2. While at work, I cursed at someone.	2.859	2.0524	.590	.150	-1.119	.299
Yelling						
1. While at work, I spoke to someone in an aggressive tone.	3.057	2.0397	.407	.150	-1.310	.299
2. While at work, I shouted at someone.	2.909	2.0708	.550	.150	-1.199	.299
Work-specific Doubted Competence						
1. While at work, I doubted that someone would perform his or her job the correct way.	3.555	2.0792	.080	.150	-1.382	.299
2. While at work, I expected less of someone than others in his or her position.	3.344	2.0498	.188	.150	-1.354	.299
Blaming						
1. While at work, I accused someone of deliberately making an error.	2.830	2.0183	.610	.150	-1.052	.299
2. While at work, I blamed someone for an error I made.	2.848	2.1449	.612	.150	-1.203	.299
Social Isolation						

1. While at work, I excluded someone from work-related social gatherings.	2.928	2.0223	.441	.150	-1.358	.299
2. While at work, I gave someone the "silent treatment."	3.179	2.0382	.331	.150	-1.253	.299
Social Manipulation						
1. While at work, I spread rumors about someone.	2.908	2.1659	.553	.150	-1.328	.299
2. While at work, I turned other coworkers against someone.	2.818	2.1049	.631	.150	-1.123	.299
Failing to Protect from Harm						
1. While at work, I failed to warn someone about an impending danger.	2.784	2.0844	.620	.150	-1.177	.299
2. While at work, I failed to protect someone from harm.	2.805	2.1173	.604	.150	-1.226	.299
Lying						
1. While at work, I gave someone incorrect information about his or her job.	2.742	2.0511	.668	.150	-1.075	.299
2. While at work, I broke promises I made to someone.	2.851	1.9820	.536	.150	-1.171	.299
General Obstructionism						
1. While at work, I undermined someone's effort to be successful on the job.	2.924	2.1383	.501	.150	-1.364	.299
2. While at work, I withheld information, which affected someone's performance.	2.939	2.0701	.479	.150	-1.236	.299

3. While at work, I withheld resources, which affected someone's performance.	2.902	2.1177	.486	.150	-1.388	.299
Restricting Communication						
1. While at work, I restricted someone's opportunity to speak.	2.890	2.1448	.530	.150	-1.341	.299
2. While at work, I prevented someone from expressing his or her opinions or thoughts.	2.973	2.1791	.514	.150	-1.325	.299
Withheld Credit						
1. While at work, I ignored someone's contributions.	2.758	1.9524	.595	.150	-1.082	.299
2. While at work, I took credit for someone's work or ideas.	2.981	2.1422	.425	.150	-1.451	.299
Invasion of Privacy						
1. While at work, I threatened to reveal private information about someone to others.	2.682	2.0574	.698	.150	-1.099	.299
2. While at work, I made unwanted attempts to draw someone into a discussion of personal matters.	2.636	1.9972	.810	.150	-.802	.299
Unwanted Jokes						
1. While at work, I played a mean prank on someone.	2.723	2.0197	.670	.150	-1.072	.299
2. While at work, I made jokes about someone's race, ethnicity, religion, or nationality.	2.840	2.1672	.641	.150	-1.146	.299

Aggressive Gesture						
1. While at work, I made offensive gestures at someone.	2.741	2.0548	.654	.150	-1.137	.299
2. While at work, I directed an obscene gesture (e.g., "gave the finger") at someone.	2.655	1.9613	.716	.150	-.976	.299
Harming Property						
1. While at work, I defaced or damaged someone's personal property.	2.572	1.9738	.771	.150	-.963	.299
2. While at work, I threatened someone with property damage.	2.672	2.0671	.704	.150	-1.097	.299
Theft						
1. While at work, I took items from someone's desk without prior permission.	2.754	2.0405	.627	.150	-1.170	.299
2. While at work, I stole someone's personal property.	2.712	2.1732	.717	.150	-1.153	.299
Sexual Aggression						
1. While at work, I committed sexual violence.	2.625	2.0891	.784	.150	-.959	.299
2. While at work, I made sexist remarks.	2.551	1.9838	.820	.150	-.830	.299
Workplace Violence: Threats of Physical Violence						
1. While at work, I threatened someone with a weapon.	2.678	2.0871	.712	.150	-1.102	.299

2. While at work, I threatened someone with physical violence.	2.572	1.9873	.794	.150	-.890	.299
Workplace Violence: Actual Physical Violence						
1. While at work, I hit or kicked someone.	2.701	2.1444	.725	.150	-1.099	.299
2. While at work, I spat on someone.	2.591	2.0561	.816	.150	-.937	.299

Table 13

Explaining variance in perpetrator workplace aggression: Usefulness analysis of PAS and IDS

Criterion variable	Ordered Predictors	β	Total R^2	ΔR^2	Ordered Predictors	β	Total R^2	ΔR^2
		PAS was controlled for				**IDS was controlled for**		
ODS	3. PAS	.50**	.76**	.76**	1. IDS	.40***	.75***	.75***
	4. IDS	.40**	.79**	.03**	2. PAS	.50***	.79***	.04***
GJS	3. PAS	-.11	.14	.14	1. IDS	-.01	.01	.01
	4. IDS	-.01	.14	.00	2. PAS	-.11	.01	.00
OCOM	3. PAS	.03	.02*	.02	1. IDS	.13	.03**	.03**
	4. IDS	.13	.02	.00	2. PAS	.03	.03	.00
SWCO	3. PAS	-.14	.08**	.08	1. IDS	-.15	.08***	.08***
	4. IDS	-.15	.08	.00	2. PAS	-.14	.08	.00
TI	3. PAS	.27*	.31***	.31***	1. IDS	.32*	.32***	.32***
	4. IDS	.32*	.33*	.02*	2. PAS	.27*	.33*	.01*
NEU	3. PAS	.28*	.20***	.20***	1. IDS	.18	.20***	.20***
	4. IDS	.18	.21	.00	2. PAS	.28*	.21*	.01*
CONS	3. PAS	-.35**	.33***	.33***	1. IDS	-.24	.32***	.32***
	4. IDS	-.24	.34	.01	2. PAS	-.35**	.34**	.02**
AGRE	3. PAS	-.34**	.38***	.38***	1. IDS	-.30* -	.38***	.38***
	4. IDS	-.30*	.40*	.02*	2. PAS	.34**	.40**	.02**
ANG	3. PAS	.45***	.58***	.58***	1. IDS	.34***	.57***	.57***
	4. IDS	.34***	.60***	.02***	2. PAS	.45***	.60***	.03***

SCON	3. PAS	-.48***	.45***	.45***	1. IDS	-.20	.42***	.42***
	4. IDS	-.20	.45	.00	2. PAS	-.48***	.46**	.04**
HH	3. PAS	-.29*	.27***	.27***	1. IDS	-.26	.27***	.27***
	4. IDS	-.26	.28	.01	2. PAS	-.29*	.28*	.01*
NWRE	3. PAS	.28*	.43***	.43***	1. IDS	.40***	.45***	.45***
	4. IDS	.40***	.46***	.03***	2. PAS	.29*	.46*	.01*
FRUS	3. PAS	.28*	.23***	.23***	1. IDS	.21	.22***	.22***
	4. IDS	.21	.23	.01*	2. PAS	.28*	.23*	.01*
BORE	3. PAS	.004	.31***	.31***	1. IDS	.00	.31***	.31***
	4. IDS	.60***	.37***	.06***	2. PAS	.60***	.37***	.06***
MOCS	3. PAS	.19	.50***	.50***	1. IDS	.56***	.55***	.55***
	4. IDS	.56***	.55***	.05***	2. PAS	.19	.55	.00
IC	3. PAS	.38***	.69***	.69***	1. IDS	.50***	.71***	.71***
	4. IDS	.50***	.73***	.04***	2. PAS	.38***	.73***	.02***
RA	3. PAS	.34*	.18***	.18***	1. IDS	.10	.17***	.17***
	4. IDS	.10	.18	.00	2. PAS	.34*	.19*	.02*
RC	3. PAS	.20	.03**	.03**	1. IDS	-.02	.03*	.03*
	4. IDS	-.02	.03	.00	2. PAS	.20	.03	.00

Note. $N = 264$. PAS = perpetrator aggression scale; IDS = interpersonal deviance scale; ODS = organizational deviance scale; GJS = global job satisfaction; OCOM = organizational commitment; SWCO = satisfaction with coworkers; TI = turnover intention; NEU = neuroticism; CONS = conscientiousness; AGR = agreeableness; ANG = anger; SCON = self-control; HH = honesty-humility; NWRE = negative work-related emotion; FRUS = frustration; BORE =

boredom; MOCS = Multi-facet Organizational Constraints; IC = interpersonal conflict; RA =

role ambiguity; RC = role conflict. *p<.05; **p<.01; ***p<.001.

Table 14

Regression analysis of dispositional and situational predictors of perpetrator workplace

aggression with variance explained by all predictors

Criterion variable	Dispositional predictor	Situational predictor	β	Variance explained by all predictors
PAS		GJS	.06	
PAS		OCOM	.15***	
PAS		SWCO	.04	
PAS		TI	.01	
PAS		BORE	.18***	
PAS		MOCS	.10	
PAS		IC	.38***	
PAS		RA	.04	
PAS		RC	-.03	81.40%
PAS		FRUS	-.08	
PAS	NEU		-.08*	
PAS	CONS		-.12***	
PAS	AGRE		-.10*	
PAS	ANG		.15**	
PAS	SCON		-.04	
PAS	HH		-.03	
PAS	NWRE		.11*	

Note. *N* = 264. PAS = perpetrator aggression scale; GJS = global job satisfaction; OCOM =

organizational commitment; SWCO = satisfaction with coworkers; TI = turnover intention;

FRUS = frustration; BORE = boredom; MOCS = Multi-facet Organizational Constraints; IC =

interpersonal conflict; RA = role ambiguity; RC = role conflict. NEU = neuroticism; CONS =

conscientiousness; AGR = agreeableness; ANG = anger; SCON = self-control; HH = honesty-

humility; NWRE = negative work-related emotion. *p<.05; **p<.01; ***p<.001.

Instructions. *Please indicate how often you have engaged in each of the following work-related*

behaviors during PAST year.

1	2	3	4	5	6	7
Never	Once a year	Twice a year	Several times a year	Monthly	Weekly	Daily

---

Omnibus Abuse

1. While at work, I hurt someone's feelings.

2. While at work, I was rude to someone.

3. While at work, I made someone feel incompetent.

4. While at work, I was mean to someone.

Verbal Abuse

5. While at work, I said something hurtful to someone.

6. While at work, I criticized or insulted someone.

7. While at work, I started an argument with someone.

8. While at work, I made fun of someone.

9. While at work, I made demeaning remarks about someone.

10. While at work, I put someone down.

11. While at work, I addressed someone unprofessionally.

Personal Verbal Abuse

12. While at work, I made negative comments about someone's personality.

13. While at work, I made negative comments about someone's appearance.

14. While at work, I made negative comments about someone's intelligence.

15. While at work, I made negative comments about someone's private life.

Work-Specific Verbal Abuse

16. While at work, I reminded a coworker about his or her past mistakes and failures.

17. While at work, I insulted a coworker about his or her job performance.

18. While at work, I made negative comments about a coworker's job knowledge.

19. While at work, I made negative comments about a coworker's expertise.

20. While at work, I unhelpfully criticized the way a coworker handled things on the job.

Demographic-Specific Verbal Abuse

21. While at work, I attacked someone's political beliefs.

22. While at work, I attacked someone's religious belief.

23. While at work, I made a racial remark about someone.

24. While at work, I made an ethnic remark about someone.

25. While at work, I made negative comments about someone's disability.

26. While at work, I made negative comments about someone's sexual orientation.

Swearing

27. While at work, I swore at someone.

28. While at work, I cursed at someone.

Yelling

29. While at work, I yelled at someone.

30. While at work, I raised my voice while speaking to someone.

31. While at work, I spoke to someone in an aggressive tone.

32. While at work, I shouted at someone.

Work Specific Doubted Competence

33. While at work, I doubted someone's judgment on a matter over which he or she had responsibility.

34. While at work, I expected less of someone than others in his or her position.

35. While at work, I questioned someone's decisions.

36. While at work, I doubted that someone would perform his or her job the correct way.

Blaming

37. While at work, I blamed someone for the mistakes other people made.

38. While at work, I accused someone of deliberately making an error.

39. While at work, I blamed someone for an error I made.

40. While at work, I blamed someone to save myself from embarrassment.

Social Isolation

41. While at work, I gave someone the "silent treatment."

42. While at work, I ignored someone's opinions.

43. While at work, I refused to talk to someone.

44. While at work, I paid little attention to someone's statement.

45. While at work, I excluded someone from important work activities or meetings.

46. While at work, I excluded someone from work-related social gatherings.

Social Manipulation

47. While at work, I talked badly about someone behind his or her back.

48. While at work, I spread rumors about someone.

49. While at work, I belittled someone's opinions in front of other.

50. While at work, I did something to make someone look bad.

51. While at work, I lied to get someone in trouble.

52. While at work, I turned other coworkers against someone.

Failing to Protect from Harm

53. While at work, I did not defend someone when other people spoke poorly of him or her.

54. While at work, I failed to correct false information about someone.

55. While at work, I failed to protect someone from harm.

56. While at work, I failed to warn someone about an impending danger.

Lying

57. While at work, I lied to someone.

58. While at work, I gave someone incorrect information about his or her job.

59. While at work, I broke promises I made to someone.

General Obstructionism

60. While at work, I delayed work to make someone look bad or slow someone down.

61. While at work, I withheld information which affected someone's performance.

62. While at work, I withheld resources which affected someone's performance.

63. While at work, I sabotaged someone's work.

64. While at work, I refused to help someone.

65. While at work, I undermined someone's effort to be successful on the job.

66. While at work, I purposely interfered with someone doing his/her job.

67. While at work, I hid something so someone at work couldn't find it.

68. While at work, I avoided returning a phone call to someone at work, which affected his or her job performance.

Restricting Communication

69. While at work, I interrupted someone when he or she was speaking.

70. While at work, I restricted someone's opportunity to speak.

71. While at work, I interrupted someone while he or she was speaking on the telephone.

72. While at work, I prevented someone from expressing his or her opinions or thoughts.

Withheld Credit

73. While at work, I did not give someone credit for jobs requiring a lot of effort.

74. While at work, I took credit for someone's work or ideas.

75. While at work, I ignored someone's contributions.

Invasion of Privacy

76. While at work, I invaded someone's privacy.

77. While at work, I read communications addressed to someone, such as e-mails or faxes.

78. While at work, I opened someone's desk drawers without prior permission.

79. While at work, I publicly discussed someone's confidential personal information.

80. While at work, I threatened to reveal private information about someone to others.

81. While at work, I told someone how to manage his or her personal life.

82. While at work, I made unwanted attempts to draw someone into a discussion of personal matters.

Unwanted Jokes

83. While at work, I played a mean prank on someone.

84. While at work, I made jokes about someone's race, ethnicity, religion, or nationality.

Aggressive Gesture

85. While at work, I rolled my eyes at someone.

86. While at work, I made offensive gestures at someone.

87. While at work, I directed an obscene gesture (e.g., "gave the finger") at someone.

88. While at work, I showed hostile body language toward someone.

89. While at work, I imitated a person's gait, voice, or gestures.

Harming Property

90. While at work, I threatened someone with property damage.

91. While at work, I defaced or damaged someone's personal property.

92. While at work, I destroyed someone's property belonging.

Theft

93. While at work, I took items from someone's desk without prior permission.

94. While at work, I stole someone's personal property.

Sexual Aggression

95. While at work, I made unwanted attempts to touch, fondle, kiss, or grab someone.

96. While at work, I made sexist remarks.

97. While at work, I made sexual approaches and sexual offers.

98. While at work, I committed sexual violence.

Workplace Violence: Threats of Physical Violence

99. While at work, I threatened someone with a weapon.

100. While at work, I threatened someone with physical violence.

Workplace Violence: Actual Physical Violence

101. While at work, I threw objects at someone.

102. While at work, I spat on someone.

103. While at work, I bit someone.

104. While at work, I hit or kicked someone.

105. While at work, I aggressively grabbed someone.

106. While at work, I pushed or punched someone.

Appendix B

Perpetrator Aggression Scale (PAS): Islam and Bowling (2022)

Instructions: Please indicate how often you have engaged in each of the following work-related behaviors during PAST year.

1	2	3	4	5	6	7
Never	Once a year	Twice a year	Several times a year	Monthly	Weekly	Daily

1. ----- While at work, I hurt someone's feelings.

2. ----- While at work, I made someone feel incompetent.

3. ----- While at work, I put someone down.

4. ----- While at work, I made demeaning remarks about someone.

5. ----- While at work, I made negative comments about someone's appearance.

6. ----- While at work, I made negative comments about someone's private life.

7. ----- While at work, I reminded a coworker about his or her past mistakes and failures.

8. ----- While at work, I made negative comments about a coworker's expertise.

9. ----- While at work, I made an ethnic remark about someone.

10. ----- While at work, I made a racial remark about someone.

11. ----- While at work, I swore at someone.

12. ----- While at work, I cursed at someone.

13. ----- While at work, I yelled at someone.

14. ----- While at work, I shouted at someone.

15. ----- While at work, I expected less of someone than others in his or her position.

16. ----- While at work, I doubted someone's judgment on a matter over which he or she had responsibility.

17. ----- While at work, I blamed someone to save myself from embarrassment.

18. ----- While at work, I accused someone of deliberately making an error.

19. ----- While at work, I excluded someone from work-related social gatherings.

20. ----- While at work, I excluded someone from important work activities or meetings.

21. ----- While at work, I turned other coworkers against someone.

22. ----- While at work, I belittled someone's opinions in front of other.

23. ----- While at work, I failed to protect someone from harm.

24. ----- While at work, I failed to warn someone about an impending danger.

25. ----- While at work, I broke promises I made to someone.

26. ----- While at work, I gave someone incorrect information about his or her job.

27. ----- While at work, I delayed work to make someone look bad or slow someone down.

28. ------ While at work, I withheld information, which affected someone's performance.

29. ----- While at work, I withheld resources, which affected someone's performance.

30. ----- While at work, I restricted someone's opportunity to speak.

31. ----- While at work, I prevented someone from expressing his or her opinions or thoughts.

32. ----- While at work, I took credit for someone's work or ideas.

33. ----- While at work, I ignored someone's contributions.

34. ----- While at work, I invaded someone's privacy.

35. ----- While at work, I threatened to reveal private information about someone to others.

36. ----- While at work, I made jokes about someone's race, ethnicity, religion, or nationality.

37. ----- While at work, I played a mean prank on someone.

38. ----- While at work, I directed an obscene gesture (e.g., "gave the finger") at someone.

39. ----- While at work, I made offensive gestures at someone.

40. ----- While at work, I defaced or damaged someone's personal property.

41. ----- While at work, I threatened someone with property damage.

42. ----- While at work, I stole someone's personal property.

43. ----- While at work, I took items from someone's desk without prior permission.

44. ----- While at work, I committed sexual violence.

45. ----- While at work, I made sexist remarks.

46. ----- While at work, I threatened someone with physical violence.

47. ----- While at work, I threatened someone with a weapon.

48. ----- While at work, I spat on someone.

49. ----- While at work, I hit or kicked someone.

Appendix C

Interpersonal Deviance Scale: Bennett and Robinson (2000)

Instructions: Please indicate how often you have engaged in each of the following work-related behaviors during PAST year.

1	2	3	4	5	6	7
Never	Once a year	Twice a year	Several times a year	Monthly	Weekly	Daily

1. ----- Made fun of someone at work.

2. ----- Said something hurtful to someone at work.

3. ----- Made an ethnic, religious, or racial remark at work.

4. ----- Cursed at someone at work

5. ----- Played a mean prank on someone at work

6. ----- Acted rudely toward someone at work

7. ----- Publicly embarrassed someone at work

Appendix D

Organizational Deviance Scale: Bennett and Robinson (2000)

Instructions: Please indicate how often you have engaged in each of the following work-related behaviors during PAST year.

1	2	3	4	5	6	7
Never	Once a year	Twice a year	Several times a year	Monthly	Weekly	Daily

1. ----- Taken property from work without permission.

2. ----- Spent too much time fantasizing or daydreaming instead of working.

3. ----- Falsified a receipt to get reimbursed for more money than you spent on business expenses.

4. ----- Taken an additional or longer break than is acceptable at your workplace.

5. ----- Come in late to work without permission.

6. ----- Littered your work environment.

7. ----- Neglected to follow your boss's instructions.

8. ----- Intentionally worked slower than you could have worked.

9. ----- Discussed confidential company information with an unauthorized person.

10. ----- Used an illegal drug or consumed alcohol on the job.

11. ----- Put little effort into your work.

12. ----- Dragged out work in order to get overtime.

Global Job Satisfaction Scale: Cammann et al. (MOAQ-JSS; 1983)

Instructions: We are interested in how much satisfaction you experience from your job. Please rate each job satisfaction item using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about the following job satisfaction items.

Strongly disagree	Disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

1. ----- All in all I am satisfied with my job.

2. ----- In general, I don't like my job. (R)

3. ----- In general, I like working here.

Appendix F

Organizational Commitment Scale: Porter et al. (1974)

Instructions: We are interested in how much committed you feel to your organization. Please rate each organizational commitment item using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about the following organizational commitment items.

Strongly disagree	Disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

1. ----- I am willing to put in a great deal of effort beyond that normally expected in order to help the organization where I work be successful.

2. ----- I talk up the organization where I work to my friends as a great organization to work for.

3. ----- I find my values and those of the organization where I work are very similar.

4. ----- I am proud to tell others that I am part of the organization where I work.

5. ----- The organization where I work really inspires the very best in me in the way of job performance.

6. ----- For me the organization where I work is the best of all possible organization for which to work.

Appendix G

Satisfaction with Coworkers Scale: Bowling et al. (2018)

Instructions: We are interested in how much satisfied you feel with working with coworkers. Please rate the following satisfaction items using the scale provided. There is no right or wrong answer, and no trick question. We are simply interested in how YOU feel about the following coworker satisfaction item.

Strongly disagree	Disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

1. ----- Overall, I am very pleased to work with my coworkers

2. ----- I would be more content with my job if my coworkers did not work here (R)

3. ----- I am more satisfied with my coworkers than with almost anyone I have ever worked with before

4. ----- All in all, I am very satisfied with my coworkers.

5. ----- All in all, I would rather work with some other kind of coworkers (R)

Appendix H

Turnover Intention Scale: Jaros (1997)

Instructions: We are interested in how strongly you feel the turnover intention at your current

job. Please rate each turnover intention item using the scale provided.

Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

1. ----- I often think about quitting my job.

2. ----- It is likely that I will search for a job with a new employer within the next year.

3. ----- It is likely that I will quit my job within the next year.

International Personality Item Pool (IPIP) - Neuroticism Scale (Goldberg et al., 2006)

Instructions: We are interested in how you feel about yourself. Please rate each feeling using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about each of these feelings.

Strongly Disagree	Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

Neuroticism

1. ----- I often feel blue

2. ----- I dislike myself

3. ----- I am often down in the dumps

4. ----- I have frequent mood swings

5. ----- I panic easily

6. ----- I rarely get irritated (R)

7. ----- I seldom feel blue (R)

8. ----- I feel comfortable with myself (R)

9. ----- I am not easily bothered by things (R)

10. ----- I am very pleased with myself (R)

International Personality Item Pool (IPIP) - Conscientiousness Scale (Goldberg et al., 2006)

Instructions: We are interested in how you prepare for and perform your job. Please rate each

preparation and performance item using the scale provided. There are no right or wrong answers,

and no trick questions. We are simply interested in how YOU feel about each of these

preparations and performance items.

Strongly disagree	Disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

Conscientiousness

1. ------- I am always prepared.

2. ------- I pay attention to details.

3. ------- I get chores done right away.

4. ------- I like order.

5. ------- I follow a schedule.

6. ------- I am exacting in my work.

7. ------- I leave my belongings around. (R)

8. ------- I make a mess of things. (R)

9. ------- I often forget to put things back in their proper place. (R)

10. ------- I shirk my duties. (R)

International Personality Item Pool (IPIP) - Agreeableness Scale (Goldberg et al., 2006)

Instructions: We are interested in how you feel toward a wide variety of social activities. Please rate each social activity using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about each of these social activities.

Strongly disagree	Disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

Agreeableness

1. ------- I have a good word for everyone.

2. ------- I have a sharp tongue. (R)

3. ------- I believe that others have good intentions.

4. ------- I cut others to pieces. (R)

5. ------- I respect others.

6. ------- I suspect hidden motives in others. (R)

7. ------- I accept people as they are.

8. ------- I get back at others. (R)

9. ------- I make people feel at ease.

10. ------- I insult people. (R)

Appendix L

The Trait Anger Scale (STAS) – Spielberger et al. (1983)

Instructions: We are interested in how much anger you feel in general. Please rate each anger item using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about each of these anger items.

Not at all	Rarely	Sometimes	Often
1	2	3	4

1. ----- Hotheaded person.

2. ----- Quick tempered.

3. ----- Fiery tempered.

4. ----- Fly off handle.

5. ----- Furious when criticized.

6. ----- Say nasty things.

7. ----- Slowed by others.

8. ----- Annoyed.

9. ----- Hitting someone.

10. ----- Infuriated.

Appendix M

Brief Self-control Scale (BSS): Tangney et al. (2004)

Instructions: We are interested in how you feel and think in certain situations. Please rate each situation using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel and think about each of these given situations.

Not at all	Rarely	Sometimes	Often	Always
1	2	3	4	5

1. ----- I am good at resisting temptation.

2. ----- I have a hard time breaking bad habits. (R)

3. ----- I am lazy. (R)

4. ----- I say inappropriate things. (R)

5. ----- I do certain things that are bad for me, if they are fun. (R)

6. ----- I refuse things that are bad for me.

7. ----- I wish I had more self-discipline. (R)

8. ----- People would say that I have iron self- discipline.

9. ----- Pleasure and fun sometimes keep me from getting work done. (R)

10. ----- I have trouble concentrating. (R)

11. ----- I am able to work effectively toward long-term goals.

12. ----- Sometimes I can't stop myself from doing something, even if I know it is wrong. (R)

13. ----- I often act without thinking through all the alternatives. (R)

Honesty-Humility Scale: Ashton and Lee (2009)

Instructions: We are interested in how you feel about the items below. Please read each item and rate your feeling using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about each of these items.

Strongly disagree	Disagree	Neutral (neither agree nor disagree)	Agree	Strongly agree
1	2	3	4	5

1. ----- I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed.

2. ----- If I want something from someone, I will laugh at that person's worst jokes. (R)

3. ----- I wouldn't pretend to like someone just to get that person to do favors for me.

4. ----- If I knew that I could never get caught, I would be willing to steal a million dollars. (R)

5. ----- I would never accept a bribe, even if it were very large.

6. ----- I'd be tempted to use counterfeit money, if I were sure I could get away with it. (R)

7. ----- Having a lot of money is not especially important to me.

8. ----- I would get a lot of pleasure from owning expensive luxury goods. (R)

9. ----- I think that I am entitled to more respect than the average person is. (R)

10. ----- I want people to know that I am an important person of high status. (R)

Appendix O

Negative Work-related Emotion Scale: Van Katwyk et al. (2000)

Instructions: We are interested in how you feel about yourself. Please rate each feeling using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about each of these feelings.

Never	Rarely	Sometimes	Quite often	Extremely often
1	2	3	4	5

1. ----- My job made me feel angry.

2. ----- My job made me feel anxious.

3. ----- My job made me feel bored.

4. ----- My job made me feel depressed.

5. ----- My job made me feel discouraged.

6. ----- My job made me feel disgusted.

7. ----- My job made me feel fatigued.

8. ----- My job made me feel frightened.

9. ----- My job made me feel furious.

10. ----- My job made me feel gloomy.

Appendix P

Frustration Scale: Peters et al. (1980)

Instructions: We are interested in how frustrating your job is. Please rate each job frustration item using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about each of these job frustration items.

Strongly disagree	Disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

1. ------- Trying to get this "job" done was a very frustrating experience

2. ------- Being frustrated comes with this "job"

Appendix Q

Job Boredom Scale (Bauer & Spector, 2015)

Instructions: We are interested in how much boring your job is. Please rate each job boredom item using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about each of these job boredom items.

Strongly disagree	Disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

1. ----- I experienced feelings of boredom at work.

2. ----- I became upset by a lack of variety on the job.

3. ----- I became distressed by how slowly the workday passes.

4. ----- I became sluggish due to the monotony of the job.

5. ----- I suffered from a lack of mental stimulation.

Appendix R

Global Multi-facet Organizational Constraints Scale: Bowling et al. (2022)

Instructions: We are interested in how often you experience constraints at work. Please rate each type of constraints using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about the frequency of constraints you experience at work.

Strongly disagree	Disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

My job is needlessly difficult because ……

1. ----- of the workplace physical condition.
2. ----- of the workplace culture.
3. ----- of the poor training.
4. ----- of the incorrect information.
5. ----- coworkers' disrupt my work.
6. ----- supervisor fails to give help.
7. ----- lack of equipment.
8. ----- lack of supplies.
9. ----- budget shortage.
10. ----- policies and procedures.
11. ----- lack of authority to do job.
12. ----- conflicting work demands.
13. ----- work scheduling problems.
14. ----- staffing shortages.
15. ----- inadequate information technology.
16. ----- excessive time spent in meetings.

Interpersonal Conflict Scale: Spector and Jex (1998)

Instructions: We are interested in how often you experience interpersonal conflict at work.

Please rate each interpersonal conflict item using the scale provided. There are no right or wrong

answers, and no trick questions. We are simply interested in how YOU feel about the frequency

of interpersonal conflict items you experience at work.

Never	Rarely	Sometimes	Quite Often	Very Often
1	2	3	4	5

1. ------- How often do you get into arguments with others at work?

2. ------- How often do other people yell at you at work?

3. ------- How often are people rude to you at work?

4. ------- How often do other people do nasty things to you at work?

Appendix T

Role Ambiguity Scale: Bowling et al. (2017)

Instructions: We are interested in how ambiguous the role of your job is. Please rate each role ambiguity item using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about each of these role ambiguity items.

Strongly disagree	Disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

1. ----- I am not sure what is expected of me at work.

2. ----- The requirements of my job aren't always clear.

3. ----- I often don't know what is expected of me at work.

4. ----- I know everything that I am expected to do at work with certainty. (R)

5. ----- My job duties are clearly defined. (R)

6. ----- I know what I am required to do for every aspect of my job. (R)

Appendix U

Role Conflict Scale: Bowling et al. (2017)

Instructions: We are interested in how conflicting the role of your job is. Please rate each role conflict item using the scale provided. There are no right or wrong answers, and no trick questions. We are simply interested in how YOU feel about each of these role conflict items.

Strongly disagree	Disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

1. ----- In my job, I often feel like different people are "pulling me in different directions."

2. ----- I have to deal with competing demands at work

3. ----- My superiors often tell me to do two different things that can't both be done

4. ----- The tasks I am assigned at work rarely come into conflict with each other (R)

5. ----- The things I am told to do at work do not conflict with each other (R)

6. ----- In my job, I'm seldom placed in a situation where one job duty conflicts with other job duties (R)