

EMPIRICAL STUDIES
RECHERCHES EMPIRIQUES

HOW DO CYBER- AND TRADITIONAL
WORKPLACE BULLYING, ORGANIZATIONAL
JUSTICE AND SOCIAL SUPPORT,
AFFECT PSYCHOLOGICAL DISTRESS AMONG
CIVIL SERVANTS?

COMMENT LE HARCÈLEMENT MORAL
TRADITIONNEL ET LE CYBER HARCÈLEMENT AU
TRAVAIL, LA JUSTICE ORGANISATIONNELLE ET
LE SOUTIEN SOCIAL AFFECTENT LA DÉTRESSE
PSYCHOLOGIQUE CHEZ LES FONCTIONNAIRES

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SUMMARY

This study examines the effects of cyber- and traditional workplace bullying, organizational justice, and social support on psychological distress. Using a cross-sectional design, we submitted an on-line questionnaire to 179 French civil servants. Based on Hayes and Preacher's (2014) method, the results indicated that organizational justice as a whole and, specifically, interpersonal justice, were a partial mediator in the relationship between traditional bullying and psychological distress. Supervisor support was a partial mediator in the relationship between traditional bullying and psychological distress, and, a complete mediator within the relationship between cyber-bullying and psychological stress. The inclusion of organizational justice as a mediator provided an interesting route, suggesting that it is essential to

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prevent the harmful consequences of bullying. Communication, respectful relationships, and above all support from supervisors are essential solutions for decreasing psychological distress at work.

Keywords: *bullying, cyber-bullying, organizational justice, psychological distress, social support.*

RÉSUMÉ

Le harcèlement moral au travail concentre une synergie d'agissements et de techniques nocives visant à isoler, humilier, maltraiter ou terroriser psychologiquement des personnes au travail (Desrumaux, 2011 ; Einarsen et al., 2011). Le cyber-harcèlement a les mêmes objectifs mais recourt à des technologies et des dispositifs de communication digitaux. Ces deux types de harcèlements ont des conséquences destructrices sur la personne et affectent sa santé mentale générant de la détresse. Or certaines ressources telles que la justice organisationnelle (Colquitt, 2001) et les soutiens perçus (Desrumaux et al., 2018) sont susceptibles de préserver la personne de la détresse. Cette étude examine les effets du harcèlement moral au travail traditionnel et du cyber harcèlement au travail, de la justice organisationnelle et du soutien social sur la détresse psychologique. À l'aide d'un devis transversal, nous avons soumis un questionnaire en ligne à 179 fonctionnaires français. Basées sur la méthode de Hayes et Preacher (2014), les analyses ont indiqué que la justice organisationnelle, et, spécifiquement, la justice interpersonnelle, étaient des médiateurs partiels de la relation entre le harcèlement traditionnel et la détresse psychologique. Le soutien du superviseur était un médiateur partiel de la relation entre le harcèlement traditionnel et la détresse psychologique, et un médiateur total de la relation entre le cyber-harcèlement et la détresse psychologique. Au niveau des implications, l'effet indirect du soutien du superviseur entre les formes traditionnelles et digitales de harcèlement et la détresse psychologique montre le rôle majeur de la hiérarchie dans la prévention des effets du harcèlement. Enfin, la justice organisationnelle en tant que médiateur constitue une voie intéressante, suggérant qu'il est essentiel de prévenir les conséquences néfastes du harcèlement traditionnel et du cyber harcèlement. En particulier, l'étude indique le rôle majeur de la justice interpersonnelle entre le harcèlement et la détresse. La prévention devra insister sur l'importance de développer des valeurs de compréhension et de considération dans l'entreprise. La communication, les relations respectueuses et, par-dessus tout, le soutien des superviseurs sont des solutions essentielles à mettre en place pour diminuer la détresse psychologique au travail.

Mots-clés : *harcèlement, cyber-harcèlement, justice organisationnelle, détresse psychologique, soutien social.*

I. INTRODUCTION

Mental health, work, and organizational justice are strongly intertwined (Eib et al., 2018; Fischer et al., 2014; Ndjaboué et al., 2012).

Particularly, workplace bullying has an impact on mental health (Dehue et al., 2012; Verkuil et al., 2015). Bullying can lead to burnout (Desru-maux, Gillet et al., 2018; Molino et al., 2019) and to extreme feelings (learned helplessness or distress) or irremediable behaviors such as suicide (Nicolas et al., 2016; Nielsen et al., 2016). These serious consequences are linked to feelings of injustice (Nicolas et al., 2015). The present study focuses on workplace bullying and organizational justice, and their psychological impact on workers (distress). Focusing on the relationships between bullying, organizational justice, and distress is based on at least two reasons. First, bullying, one of the major psychosocial risks at work, has negative consequences such as distress (Soares, 2014). Second, the negative relationship between bullying and distress can be better explained if we take into account the feeling of being ill-treated at work. A fundamental concept underlying the relationships between bullying and psychological distress is the worker's perception of organizational injustice. Organizational justice is related to variations in employees' trust in those who make decisions concerning their work, their career, and as a consequence, their health. It is also associated with perceived quality of social functioning at work (Bies & Moag, 1986; Greenberg & Colquitt, 2005). A perceived lack of fairness has predicted the morbidity and mortality of both workers and organizations (Elovainio et al., 2001). Organizational injustice not only ruins social relations but conduct to distress (Boudrias et al., 2011). Another workplace related fact, especially for the tertiary sector and civil servants is that traditional bullying and cyber-bullying are being used to make the targeted individuals suffer. However, a few studies have simultaneously measured cyber- and traditional bullying in order to understand their specific effects and how those effects are impacted by social support and organizational justice.

The aim of this study, based on the hypothetic model shown in Figure 1, was to predict distress based on a model including two psychosocial independent variables (traditional and cyber-bullying), three organizational mediators (procedural, interpersonal, and informational justice) and two psychosocial mediators (coworker support and supervisor support). This approach should allow us to test the distinctive effects on distress of WB-T (traditional bullying at work) and WB-C (cyber-bullying at work), and the roles of justice and social support as mediators. A second aim was to test our model specifically on civil servants because research has found that civil servants (e.g., in the medical, paramedical, and social sectors) are particularly at risk of bullying (e.g., for nurses working in the public hospitals, Han & Ha, 2016; Trépanier et al., 2016).

I.1. BULLYING, CYBER-BULLYING AND PSYCHOLOGICAL DISTRESS IN THE WORKPLACE

Bullying, mobbing, or harassment are the terms that represent the same idea: an unwanted behavior against someone else in order to make the victim feel psychologically oppressed. Many definitions and many

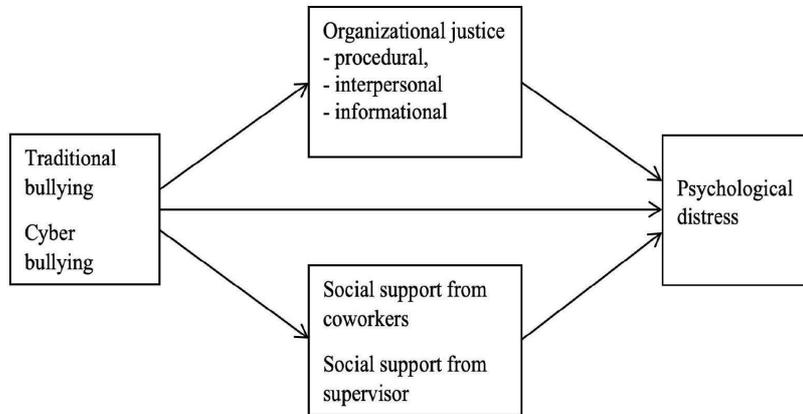


Figure 1. Hypothesized Model: Effects of Cyber- and Traditional Workplace Bullying, on Distress via Organizational Justice and Social Support.
Figure 1. Modèle hypothétique : effets du harcèlement traditionnel et digital sur la détresse via la justice organisationnelle et le soutien social.

concepts have been used to explain what bullying is. *Mobbing* (Leymann, 1996) has been defined as *hostile acts occurring at least once a week and for at least six months, putting the individual into a powerless position that generates psychological terror*, and leaving the victim in a state of psychological distress that can lead to suicidal ideation and suicide (Soares, 2012, 2014). *According to many scholars (e.g., Einarsen et al., 2011), a large number of acts can be seen as workplace bullying whenever they are repeated over a lengthy period.* Cyber-bullying was initially defined as “inappropriate, unwanted social exchange behaviors initiated by a perpetrator *via* online or wireless communication technology and devices” (Piotrowski, 2012, p. 45). Workplace cyberbullying has been defined as “all negative behavior stemming from the work context and occurring through the use of ICTs⁵, which is either (a) carried out repeatedly and over a period of time or (b) conducted at least once but forms an intrusion into someone’s private life, (potentially) exposing it to a wide online audience. This behavior leaves the target feeling helpless and unable to defend” (Vranjes et al., 2018, p. 34). Cyberbullying acts as bullying acts are repetitive and have serious consequences on the victims’ psychological health. It includes “anonymous, fraudulent, aggressive, unwanted messages, spreading rumors, hacking into email accounts, threats, harassment, attacks, unwanted phone calls, malicious, abusive messages” (Grigg, 2010, p. 146). Both face-to-face bullying and cyberbullying are about relationships, power, and control (Privitera & Campbell, 2009).

Although the literature on traditional work bullying is rich and abundant (see Einarsen et al., 2011; Nielsen et al., 2015; Verkuil et al., 2015), current investigations addressing workplace cyber-bullying are sparse. It

5. ICTs : Information and Communication Technologies.

is clear that the relationships and dialogues are not the same when leaders and employees work face-to-face and at the same time, as when they use remote communication tools. It seems easier in the latter case to express negative emotions, and to rely too heavily on technologies and “digital” relationships. Another difference is that new technologies are an endless platform for bullying perpetrators, even outside of work hours. Victims may feel therefore unsafe where they think they are the safest. The bully can continue to spread conversations and pictures, or humiliate the victim. The study by Kowalski et al. (2018) showed that face-to-face incivility was more common than online incivility, face-to-face bullying, or online bullying, yet all four behaviors were associated with negative outcomes in their study. Differences in intentionality, acceptability, and severity were observed, with face-to-face workplace bullying being perceived as the most severe and having the greatest intention to harm. Workplace bullying is usually associated with health problems, not only post-traumatic stress disorder or depression but also cardiovascular diseases (Kivimäki et al., 2003).

One prominent consequence of workplace bullying is distress. When bullying occurs, it leads to psychological distress (Cassidy et al., 2014; Figueiredo-Ferraz et al., 2015). Post-traumatic stress disorder (PTSD) symptoms, including distress, appear in many bullied workers (Desrumaux, 2011; Matthiesen & Einarsen, 2004; Soares, 2014) and in public sector (e.g., in hospital nurses, Laschinger & Nosko, 2015). For example, Matthiesen and Einarsen (2004) found that the level of bullying, operationalized as the frequency of negative acts, was strongly interconnected with distress and PTSD. *Many scholars agree that psychological distress is based on two main strongly intertwined factors: depression and anxiety* (Kessler et al., 2002; Massé et al., 1998; Trépanier et al., 2015). More specifically, workplace bullying is known to be correlated with psychological distress symptoms such as anxiety, depression, and irritability (Cassidy et al., 2014; Nielsen et al., 2012; Nielsen et al., 2015). Bullying is associated with higher levels of psychological distress. A longitudinal study (Figueiredo-Ferraz et al., 2015) found a link between workplace bullying and depression. The meta-analysis by Verkuil et al. (2015) on cross-sectional data (65 effect sizes, $N = 115.783$) showed positive associations between workplace bullying and symptoms of depression. As well, nurses experiencing bullying in public hospitals report significantly higher anxiety scores than those who are not harassed (Aksakal et al., 2015). A literature review by Reed et al. (2016) on adolescents showed that cyberbullying had serious consequences such as depressive symptoms. Studies based on questionnaires and interviews showed that being directly exposed to higher levels of bullying acts have serious consequences on health, including depression, helplessness, anxiety and hopelessness (Carter et al., 2013). Abusive supervisors do not support their followers and impose a controlling work environment and generate tension, anxiety and burnout (O'Donoghue et al., 2016). *Distress has been shown to impact the work perceptions (feeling of injustice, negative views of the environment, others, and self) and can be added to bullying, thereby creating an even impact on psychological distress as a never-ending spiral* (Nielsen et al., 2012). In the light of the reported links

between psychological distress (depression, anxiety, irritability) and workplace bullying (Carter et al., 2013; Cassidy et al., 2014; Figueiredo-Ferraz et al., 2015), we formulated our first hypothesis.

Hypothesis 1: Workplace bullying and cyber-bullying are related to psychological distress.

I.2. ORGANIZATIONAL JUSTICE AS MEDIATOR BETWEEN BULLYING AND PSYCHOLOGICAL DISTRESS

Organizational justice refers to fairness at the workplace. Four types of justice were identified by Greenberg (1993) and empirically verified by Colquitt (2001): distributive justice, procedural justice, interpersonal justice, and informational justice. Distributive justice encompasses the perceived fairness of the allocation of organizational outcomes, such as pay, promotions, and bonuses (Deutsch, 1975). Distributive justice refers to the perceived fairness of decision outcomes, as determined by comparing one's perceived input-outcome ratio to that of a comparison other (Adams, 1965). Procedural justice consists of the perceived fairness of company procedures, policies, and rules (Thibaut & Walker, 1975). Leventhal (1980) discussed six rules governing applications of procedural justice. Interactional justice (Bies & Moag, 1986) can be divided into two sub-dimensions such as interpersonal justice and informational justice (Bies & Moag, 1986; Greenberg, 1993). Informational justice includes giving an employee enough explanations and information, usually about a decision. Informational justice indicates the quality of the information used to explain the manner in which decisions are made, as well as the accuracy of the explanations given about the payments received. Informational justice represents whether or not information is being communicated about decisions made by authorities. Interpersonal justice represents how employees are treated by superiors, i.e., with or without respect, politeness, and dignity.

Several studies have found a negative correlation between stress and organizational justice (Judge & Colquitt, 2004; Ndjaboué et al., 2012), between depressive symptoms and sickness absence, and organizational justice (Eib et al., 2018), and between bullying and organizational justice (e.g., Cortina et al., 2001; Fox et al., 2003; Seyrek & Ekici, 2017; Zellars et al., 2002). Tepper (2000) showed that abusive supervision was negatively associated with perceptions of interactional, procedural and distributive justice. A study by Coyne et al. (2017) on 331 UK university employees across academia, administration, research, and management indicated an indirect effect between cyber-bullying acts and outcomes *via* state negative affectivity and between cyber-bullying acts and job satisfaction *via* interpersonal justice. Another study by Hsu et al. (2019) on 310 entry-level employees of international tourism hotels in Taiwan, adopting hierarchical regression, found that organizational justice had a significant moderating effect on the relationship between workplace bullying and hotel employees' well-being. Organizational injustice is associated with powerlessness and psychological strain in organizations (Elovainio et al.,

2001; Francis & Barling, 2005). A high level of injustice at the workplace is related to anger, negative emotions (Bies & Tripp, 1996). Perceived injustice at the workplace is related to psychological stress, job strain, and negative outcomes like depression and physical illness (Elovainio et al., 2001; Francis & Barling, 2005; Tepper, 2001). For example, Elovainio et al. (2001) showed, using structural equation modeling based on data collected from 688 employees, that job control affects strain through justice evaluations.

According to Fischer et al. (2014, p. 1), “Organizations that use fair procedures, treat employees with respect and dignity and use fair compensation have healthier staff”. This means that organizational justice is important for employees, insofar as they feel safe when justice exists. Indeed, if workers are not given the possibility of participating in procedures, the procedures and rules are seen as unpredictable and uncontrollable and as such are a source of stress. As for the last aspect of organizational justice, a lack of communication can be a source of psychological distress (Rousseau et al., 2009). And the lack of organizational justice can cause additional stress and more bullying in the workforce. If there is no equality among workers and credit is incorrectly given for someone else’s hard work without consequences, this will ultimately result in more illness and distress. A study by Inoue et al. (2013) on 1133 workers showed that low procedural justice and low interactional justice were significantly associated with major depressive episodes. Eib et al. (2018) found that procedural justice was related to health (depressive symptoms and sickness absence). Accordingly, we formulated our second hypothesis.

Hypothesis 2: Procedural, interpersonal and informational injustice are mediators in the relation between bullying and psychological distress.

I.3. SOCIAL SUPPORT AS MEDIATOR BETWEEN BULLYING AND PSYCHOLOGICAL DISTRESS

Social support is related to workplace bullying (Cassidy et al., 2014; Djurkovic et al., 2008; Soares, 2014). On the one hand, good social support from coworkers or supervisors reduces job strain (Karasek & Theorell, 1990), can provide protection for bullied workers, and offers positive gains for maintaining an individual’s good psychological health. For example, a study by Han and Ha (2016) showed that supervisor support protected workers against workplace bullying. On the other hand, many studies have underlined the lack of social support, from both superiors and coworkers, toward a bullied target (Einarsen et al., 2011; Hansen et al., 2006). It is often found that a majority of workers offer no support, and sometimes even turn against the target (Leymann, 1996). Some studies have shown that supervisors ignore the situation and do not intervene, in other words, bullying can conduct to a lack of social support (Naseer et al., 2016).

Social support intentions increase with the gravity of the perpetrator’s acts and with the victim’s prosociality (Desrumaux et al., 2016) but

decrease with indirect behaviors like isolation. Support from coworkers can protect against the negative impact of workplace bullying (Cassidy et al., 2014; Djurkovic et al., 2008). Other studies have shown that social support is beneficial to individuals afflicted with depression (e.g., Wang et al., 2014). For example, Desrumaux, Gillet et al. (2018) showed that the support of one's coworkers and supervisor was negatively correlated with distress. In a meta-analysis on social support, Halbesleben (2006) showed that coworkers support and supervisor support, considered as resources, would be linked to good mental health. Although previous work based on moderation calculations has shown a moderating role for support, more recent tools for testing mediation argue for a mediating role for social support. For example, a mediation analysis showed that the relations between leader mindfulness and positive organizational citizenship behaviors were significantly mediated through leader member exchange (LMX) quality (Reb et al., 2018). Leroy-Frémont et al. (2014) found that coworker support had mediating effects between procedural, interpersonal, and informational justice and burnout. A mediational analysis by Talwar et al. (2017) revealed that stress was not only directly related to depression, but was also indirectly related to depression *via* perceived social support. Another study indicated that social support mediated the links between personal variables and psychological health in terms of stress (Swickert et al., 2002). A study by Chen et al. (2020) validated the mediating effects of social support in the link between job stress and distress (i.e., depression and anxiety). Another study testing a mediation model (Dose et al., 2019) showed that supervisor support had an indirect effect between self-efficacy and positive psychological health. These studies lead us to formulate our third hypothesis.

Hypothesis 3: Coworkers and supervisor supports are mediators in the relation between bullying and psychological distress.

In sum, the present study was aimed at testing our hypotheses using a multivariate approach (Figure 1). We test for the respective effects of each type of predictor (traditional and cyber bullying) and each mediator (organizational justice: procedural, interpersonal, and informational, and social support: supervisor and coworkers support) on psychological distress.

II. METHOD

II.1. PARTICIPANTS

One hundred and seventy-nine French civil servants answered a questionnaire. Among them, 132 were women and 47 were men between the ages of 20 and 62 ($M = 42.71$, $SD = 11.01$), 97 (54%) of which were considered executives. They were working either full time (84,12%) or part time (17.46%). They had on average a seniority on the post of 9,08 ($SD = 9,59$). They worked only in French national organizations or agen-

cies. The most frequent sectors were administrative management (48%), social and educative work (27%), maintenance (11%), librarian (6%), and other categories (8%). Teachers and police officers were removed from the participants. The participants filled out a questionnaire containing 161 questions about their own experience at their workplace. The questionnaires were handed out both on papers and through Internet but participants mostly return the digital version of the questionnaire that they had fill out on-line. The web survey remained accessible for 14 months. All the data were collected on the same time before being examined. The participants were recruited on the web site LinkedIn. Participation was voluntarily. Searchers solicited 900 subjects but obtained 179 acceptations (19,88% response rate). With the online questionnaire, there could be no missing answers because to move on to the next question, participants had to have checked off an answer to the previous question. They gave written consent for their participation at the beginning of the questionnaire. An informed consent form specified the objectives of this study, the nature of participation, the guarantee of anonymity, the right of withdrawal, the management of confidentiality and the monitoring of data and publications.

II.2. PROCEDURE AND MEASURE

The questionnaire consisted of five scales, followed by 15 sociodemographic questions. The materials were administered in French.

Traditional and cyber bullying. The Belgian version of the Negative Acts Questionnaire or NAQ (Notelaers et al., 2006) was used to assess workplace bullying. The 14 items measure the frequency of exposure to negative behaviors considered to constitute workplace bullying if they occur regularly. The items are formulated in behavioral terms, with no reference to the expression “bullying”. Traditional bullying was measured with 9 behaviors (e.g., “Spreading gossip and rumors about you”). Cyber bullying was measured with 5 behaviors - an item example is “to devalue or humiliate you by using the internet or new technologies”. The participants were asked to indicate, on a four-point scale ranging from 1 (*never*) to 4 (*once a week or more*), how frequently they had experienced each behavior within the last six months. The psychometric properties of the French version of the NAQ-R are similar to those of the original (Einarsen et al., 2009). Cronbach’s alphas were .78 and .70, respectively for traditional bullying and for cyber bullying.

Psychological distress. Psychological distress was measured with the scale validated by Gilbert et al. (2011) consisting of 23 items (e.g., “I get worked up over every little thing, I feel preoccupied, anxious, I feel disinterested in my work”) on 5-point Likert scale ranging from 1 (*almost never*) to 5 (*almost always*). Cronbach’s alpha was .94.

Organizational justice. Organizational justice was measured using Colquitt’s (2001) 20-item scale. Participants were asked to indicate the extent to which they agreed with various statements, using a five-point scale ranging from 1 (*to a very small extent*) to 5 (*to a very large extent*).

However, we did not use the distributive justice scale (4-item scale). The questionnaire assessed procedural justice on seven items (e.g., “The procedures used by the company allow you to express your opinions and feelings during decision-making”) interpersonal justice on four items (e.g., “Those responsible for decisions concerning you treat you with respect”), and informational justice on five items (e.g., “Those responsible for decisions affecting you have had frank communication with you”). Cronbach’s alphas were .80, .91, and .93, respectively for procedural, interpersonal and, informational justice.

Social support from coworkers and supervisor. Social support was measured using Karasek et al.’s (1998) 11-item scale. Both the negative items (about hostile or conflictual relationships) were reversed. Support from coworkers (e.g., “The coworkers I work with are friendly”) was measured with 6 items, and support from supervisor was measured with 5 items (e.g., “My boss facilitates work”). The scales had to be rated on a scale ranging from 1 (*I strongly disagree*) to 4 (*I strongly agree*). Cronbach’s alphas were .83 and .83, respectively for support from coworkers and support from supervisor.

For each scale, the sense of scoring is always positive when the variable is positive (support, justice) and negative when the variable is negative (bullying, distress).

The last part consisted of 15 sociodemographic questions: age, sex, family situation, occupation, occupational category, sector (private, public, or parapublic). We also asked for their job title, the number of hours worked per week, type of employment contract (full-time, between full and half time, half time), day or night work, seniority on the post, seniority in the organization, branch of business, and number of employees (optional).

III. RESULTS

SPSS-25 software was used to calculate reliability, correlations, and mediation, thanks to the Process macro.

III.1. PRELIMINARY ANALYSIS

The means, standard deviations, and bivariate correlations are presented in Table 1. The reliability of the variables was tested with Cronbach’s alpha, an internal consistency index. As we can see in Table 1, all variables met the standards, with three excellent alphas ($\alpha > .90$) and three good alphas ($.90 > \alpha > .80$).

Respondents report relatively little psychological distress (on a scale from 1 to 5, $M = 1.92$, $SD = .64$), but at the same time, they are 38% to experiencing psychological distress at least “rarely” and 5.6% at least “half the time”. Quite few respondents have experienced traditional or

cyber bullying in the past six months (on a scale from 1 to 4, traditional bullying: $M = 1.52$, $SD = .45$; cyberbullying: $M = 1.07$, $SD = .20$). However, they are 17.3% to testify to having been faced with typical acts of traditional harassment at least “from time to time”, and 0.6% to testify to be faced with cyber bullying acts at least “from time to time”. Respondent’s report perceiving interpersonal justice ($M = 3.79$), but are more mixed about the presence of informational justice ($M = 3.02$) and procedural justice ($M = 2.83$). The support from superior and from colleagues is very high for the respondents.

The correlation matrix provided a preliminary view of the links between the IVs (Independent Variables), DVs (Dependent Variables), and mediating variables. Out of 28 tested correlations, 27 were significant and all went in the expected direction. Especially, traditional bullying was correlated with all variables ($-.54 < r < .43$, $p = .00$). Cyber-bullying was correlated to all variables except procedural justice ($r = -.08$, ns). Traditional and cyber-bullying at work were correlated with psychological distress (WB-T: $r = .43$, $p = .00$; WB-C: $r = .19$, $p = .01$). Workplace bullying was negatively correlated with every kind of organizational justice, and with social support. The *VIF* indices were measured for each independent and mediator variables; they were all < 2.3 and so clearly < 10 , what indicates that there is no problem of multicollinearity.

TABLE 1. Means, Standard Deviations, and Correlations Between the Variables.
 TABLEAU 1. Moyennes, Écart-types et Corrélations entre les Variables.

	Scale	M	SD	VIF	1	2	3	4	5	6	7	8
1 PsyDist	1-5	1.92	64		.94							
2 WB-T	1-4	1.52	45	1.18	43**	.78						
3 WB-C	1-4	1.07	20	1.84	18**	36**	.70					
4 ProcedJ	1-5	2.83	72	1.55	-.35**	-.39**	-.08	.80				
5 InterpJ	1-5	3.79	95	2.08	-.47**	-.49**	-.19*	48**	.91			
6 InformJ	1-5	3.02	99	2.60	-.45**	-.45**	-.14	55**	67**	.93		
7 Co-SS	1-4	3.08	51	1.56	-.47**	-.47**	-.26**	28**	37**	32**	.83	
8 Sup-SS	1-4	2.91	67	1.97	-.54**	-.54**	-.17*	30**	50**	53**	54**	.86

Note. $N = 179$. Cronbach’s alphas are in boldface along the diagonal; PsyDist: Psychological Distress; WB-T: Traditional workplace bullying; WB-C: Cyberworkplace bullying; ProcedJ: Procedural Justice; InterpJ: Interpersonal Justice; InformJ: Informational Justice; Co-SS: Coworker Social Support; Sup-SS: Supervisor Social Support.

Note. $N = 179$. Les alphas de Cronbach sont en gras le long de la diagonale; PsyDist: Détresse Psychologique; WB-T: Harcèlement Moral au Travail Traditionnel; WB-C: Cyber Harcèlement Moral au Travail; ProcedJ: Justice Procédurale; InterpJ: Justice Interpersonnelle; InformJ: Justice Informationnelle; Co-SS: Soutien Social des Collègues; Sup-SS: Soutien Social du Supérieur.

III.2. MODEL TESTING

To test the hypotheses, we used Hayes and Preacher’s (2014) macro for SPSS, which verifies the existence of direct and indirect links between

the independent variables (bullying) and the dependent variable (psychological stress) through the mediators (organizational justice and social support). We preferred this method over structural equation modeling because we had too many parameters for the size of our sample (the ratio of participants to estimated parameters was less than 20:1) (Kline, 2011). The recommended approach (Hayes & Preacher, 2014) breaks down the links in the mediation model. Link C' (the direct effect) represents the specific effect of an IV on the DV where the effects of the MVs are controlled. The mediation (indirect) effect is MV specific effect on DV when IV is controlled. Link C represents the total effect of an IV on the DV; it is equal to the sum of the direct and indirect effects (Preacher & Hayes, 2008). We used Model 4 for the analyses. The three components of organizational justice (procedural, interpersonal, and informational justices) were entered into the same analysis, once with traditional bullying as the independent variable, the other with cyber-bullying as the independent variable. The two components of social support (from supervisor and from coworkers) were entered into the same analysis, once with traditional bullying as the independent variable, the other time with cyber-bullying as the independent variable. The results are presented in Table 2.

Organizational justice as a whole was a partial mediator in the relationship between traditional bullying and psychological stress considering that its indirect effect was significant (.29). However, taken separately, only interpersonal justice was a partial mediator in the relationship. Said differently, a part of the psychological stress that is explained by traditional bullying is in fact explained by organizational justice, and more specifically by interpersonal justice. Organizational justice was also a partial mediator within the relationship between cyber-bullying and psychological distress, since its total indirect effect was significant (.31). Specifically, interpersonal justice is a partial mediator (.17).

Concerning social support as a mediator, the results showed that social support as a whole was not a mediator in the relationship between traditional bullying and psychological distress, but when looking at specific mediators, supervisor support was a partial mediator. Finally, social support as a whole was a complete mediator (.24) within the relationship between cyber-bullying and psychological stress, thanks to the specific intervention of supervisor support (.22), the support from coworkers was not a significant mediator (.02). Said differently, the effect of cyberbullying on psychological distress is in fact completely explained by the intervention of supervisor support.

So, considering organizational justice as mediator, the only significant indirect effect on psychological distress was *via* interpersonal justice for both forms of workplace bullying ($CI = [.005, .30]$, $CI = [.03, .39]$). Even if informational justice seems to be a mediator because of its indirect effects, the fact that link B was not significant when IV is traditional bullying, and that link A was not significant when IV is cyberbullying, conducts to conclude that there was no mediation in these cases. Considering social support, only supervisor support had a mediating role between both forms of bullying at work ($CI = [.01, .30]$, $CI = [.07, .46]$)

TABLE 2. Mediation Analyses: Effects of Traditional and Cyber-Bullying (IVs) on Psychological Distress (DV) Mediated by Organizational Justice and Social Support.

TABLEAU 2. Analyses de médiations : Effets du harcèlement traditionnel et digital (VI) sur la détresse (VD) via la justice organisationnelle et le soutien social.

IV	MV	R ²	Total Effect (link C)	Direct effect (link C')	Effect of IV on MV (link A)	Effect of DV on MV (link B)	Indirect Effect (link)	CI LL UL for indirect effect
WB-T	Justice (total)	30*	61*	32*			29*	[.13,.46]
	ProcedJ				-.62*	-.07 _{ns}	04 _{ns}	[-.05,.17]
	InterpJ				-1.03*	-.14*	14*	[.005,.30]
	InformJ				-1.00*	-.11 _{ns}	11*	[.0008,.23]
WB-C	Justice (total)	27*	62*	31*			31*	[.12,.59]
	ProcedJ				-.30 _{ns}	-.10 _{ns}	03 _{ns}	[-.05,.12]
	InterpJ				-.99*	-.17*	17*	[.03,.39]
	InformJ				-.82 _{ns}	-.13*	11*	[.01,.28]
WB-T	Support (total)	19*	61*	49*			12 _{ns}	[-.02,.28]
	Co-SS				-.54*	05 _{ns}	-.03 _{ns}	[-.15,.12]
	Sup-SS				-.81*	-.18*	15*	[.01,.30]
WB-C	Support (total)	03*	62*	38 _{ns}			24*	[.06,.51]
	Co-SS				-.73*	-.03 _{ns}	02 _{ns}	[-.20,.24]
	Sup-SS				-.72*	-.31*	22*	[.07,.46]

Note. N = 179; CI = confidence intervals; LL = lower limit; UL = upper limit. WB-T: Traditional workplace bullying; WB-C: Cyber workplace bullying; ProcedJ: Procedural justice. InterpJ: Interpersonal justice; InformJ: Informational justice; Co-SS: Coworker Social Support; Sup-SS: Supervisor Social Support.

* Significant at CI 95%

Note. N = 179. CI = intervalle de confiance ; LL= Limite inférieure ; UL = limite supérieure. WB-T : Harcèlement Moral au Travail Traditionnel ; WB-C : Cyber Harcèlement Moral au Travail ; ProcedJ : Justice Procédurale ; InterpJ : Justice Interpersonnelle ; InformJ : Justice Informationnelle ; PsyDist : Détresse Psychologique ; Co-SS : Soutien Social des Collègues ; Sup-SS : Soutien Social du Supérieur.

* Significatif à CI 95 %

and psychological distress. We can underline that the mediation was partial between traditional bullying and psychological distress, but, relatively rare fact, the mediation was complete between cyber bullying and psychological distress: the direct effect from cyberbullying on psychological distress becomes not significant when considering support (from the supervisor) as mediator in the equation.

IV. DISCUSSION

This study provides a number of insights to add to those found in the literature on this topic. Firstly, it extends the scarce research on workplace cyber-bullying by analyzing its joint influence (with traditional work bullying) on distress. Secondly, the possible indirect effects of organizational justice and support as mediators between bullying and distress are explored.

The first hypothesis was supported: bullying and cyber-bullying at work have significant relationships with psychological distress, which means that workplace bullying and psychological distress are inseparable phenomena. Our results are consistent with the results obtained by Nielsen et al. (2012) on traditional bullying. As explained above, we decided to explore simultaneously two sides of bullying at work (cyber and traditional) insofar as cyber-technology is increasingly being used in work life. In fact, cyber-bullying has similar effects to those of traditional bullying. Another important result is that traditional workplace bullying is correlated with cyber-bullying. If a victim gets bullied in person, she/he will probably be subject to bullying through technology and thus cyberbullying. Given that technology is everywhere it could even be that work bullying continues after work hours and might involve new and/or different factors in the victim's mental health.

Direct and Indirect Effects of Organizational Justice. The results showed that interpersonal justice had a direct effect on psychological distress. Therefore, our Hypothesis 2, which assumes that organizational justice is negatively related to psychological distress, was partially validated. Indeed, when interpersonal justice was more prominent, psychological distress was less apparent. However, the presence or absence of procedural justice and informational justice was not as important for the worker. Good, healthy relations at work apparently play the most important role, among the different roles, in organizational justice as thus, in human contact and socialization.

Partially confirming our Hypothesis2, only interpersonal justice played a mediator role between workplace bullying and distress. Once again, this points out the importance of establishing values of understanding and consideration. When in the presence of bullying, the roles change: interpersonal justice becomes the most prominent form of justice as a mediator between bullying and psychological distress. Informational justice did not mediate relationship between bullying or cyberbullying and psychological distress.

Note that contrary to Thibaut and Walker (1975), procedural justice was not valued in any situation related to psychological distress. This observed difference might be due to the development of technology, or the evolution of society and our participants. Further research at a larger scale could explain or refute our results. It is, of course, surprising that the perception of the justice of the proceedings is not really impacted by being harassed. However, it is possible to explain these results by the stability of procedural justice in the public sector. Indeed, in this sector

the procedures, regulations and financial means of the public service are identical throughout a country and are therefore fairly stable. Whether in cases of harassment or cyber harassment, the perception of procedures in public institutions does not affect distress.

Indirect Effect of Social Support. Victims of bullying tend to report less peer support (Einarsen et al., 2011; Hansen et al., 2006; Naseer et al., 2016), so we tested the role of social support as mediator. Our study showed that social support acted as an indirect variable. Only social support from supervisors played a significant role in the relationship between workplace bullying and psychological distress. Hypothesis 3, which assumed that bullying at work has an indirect effect on psychological distress *via* supervisor support, was validated, showing the major role of the hierarchy in prevention. Receiving the supervisor's support can help victims, since supervisors have more weight in the organization than coworkers. Support from coworkers did not have a mediating effect between bullying and distress which did not support the Hypothesis 3. The presupposed indirect effect of coworkers support on psychological distress was not validated. Precisely the link between a mediator such as the support of the coworkers, and the distress is not significant. It is therefore inoperative to modify the distress. Despite the level of support from co-workers reported by victims, bullied employees may not feel protected and defended, which does not ultimately reduce distress.

IV.1. LIMITATIONS

First, the cross-sectional design we used does not allow us to draw conclusions about causal links between the variables. Second, all data were self-reported, and this method can increase socially desirable responses, and common variance between responses (Lindell & Whitney, 2001). According to Conway and Lance (2010), using self-reported method is justified in several cases and common method bias can be controlled by taking certain precautions. The first precaution was the valid scales we choose. The second precaution to avoid conceptual overlap in items was taken by choosing clearly different concepts: distress, bullying acts, organizational justice, and supports correspond to very different concepts and measurement items. Using self-reports of distress, bullying seems particularly appropriate because, it is not possible to question colleagues or superiors because either they may be actors in the bullying process or they may not witness all the acts and cyber-acts, or they are affected as witnesses, which impacts on the statements. As Judge et al. (2000) noticed it, we preferred self-reported declarations because it explicitly focused on perceived distress, bullying acts and justice, making self-reports the theoretically most relevant measurement method. The third limitation relates to the participants. Although the number of 179 participants is moderate, it is relatively homogeneous in that it involves public servants. It is interesting to focus on this population whose status is protected but who often suffer because they do not leave public institutions and develop real distress. Even though all of the participants

were civil servants, we did not control the occupation, because all participants come from the public sector - it is in itself a great homogeneity, rather rare in the contributions on harassment. Fourth, it might have been more interesting and more rewarding in terms of knowledge if we had distinguished between the three different forms of psychological distress (irritation, anxiety, and disengagement). Fifthly, in our study, the rate of cyberbullying is low and lower than the rate of traditional bullying. This can be explained by the fact that the cyberbullying would allow the victim to keep concrete evidence of (cyber) bullying, what a perpetrator would of course want to avoid. Finally, despite an acceptable Cronbach's alphas, our scale of cyberbullying can be improved. It will be interesting to test the Inventory of Cyberbullying Acts at Work (Vranjes et al., 2018) that distinguish three dimensions: work related, person related and intrusion, by making reference into the items, not to the internet, but to the ICT (with the mention "internet, mail, mobile phone, telephone, tablet, etc" in parentheses). It would indeed be interesting to test to what extent professional email is seen as an "intranet" technology (internal to one's organization) and to what extent, when talking about the Internet in connection with cyberbullying, respondents think mainly to bullying on social networks, therefore outside of corporate networks.

IV.2. IMPLICATIONS FOR RESEARCH

Bullying and cyber-bullying at the workplace has become a crucial problem in the public arena. Pheko (2018) found that using rumors and gossip maintained oppression and social dominance, was an expression of envy and social undermining and humiliated subordinates. Future research could examine how cyberbullying, not only contributes to increased frequency and repetition of bullying acts, but also aggravates the psychological impact of acts experienced as unfair such as rumors and gossip. Other consequences of bullying such as burnout (Desrumaux, Gillet et al., 2018), emotions, and beliefs could be measured. As new technologies are developed, future research is needed to clarify the specific roles of traditional and cyber bullying on target's distress, on emotion regulation or on helping behaviors toward targets. Since this research was conducted in France, our results need to be generalized to other countries. Comparing cultures as a way of understanding and finding other solutions, helps eliminate limitations and broaden our knowledge of this field. In addition, according to the literature review by Pheko et al. (2017) showing how some organizational cultures may motivate, facilitate, perpetuate, enable, and precipitate workplace bullying, we need to understand how organizational justice and organizational climate interacts, facilitate or impede bullying.

IV.3. PRACTICAL IMPLICATIONS

At a primary prevention level, the findings reported in this study suggest that the links between traditional and cyberbullying and psycholo-

gical distress could function through the mechanism of organizational justice. It is therefore necessary to improve different kinds of organizational justice: first of all, interpersonal justice (e.g., understanding and acknowledging the employee's perspective) seeing our results, but also the other kinds of organizational justice (informational justice by providing meaningful information, and procedural justice by offering opportunities to participate in decisions, using their voice) because all these practices will enhance the feeling of being treated fairly.

As we noted in the results, social support can play a mediator role when it comes from one's supervisor. One who is bullied perceives less supervisor support, which is logical. If bullying occurs, support is perceived as insufficient that in turn leads to psychological distress. A prevention public policy can then be to reinforce the dialogue between the harassed people and supervisors in order to give back confidence and a sense of security to the bullied employees. Promoting social support from supervisors and coworkers is critical for decreasing distress. It is crucial that organizations pay careful attention to finding ways of increasing opportunities to obtain social support for all staff members. In particular, supervisors play a very important protective role by valorizing recognition, offering opportunities for choice and decision-making, highlighting the capacities and abilities of subordinates, and helping them understand their work and tasks by offering them direct assistance (instrumental or psychological). Managers could be trained to better supervise their subordinates and show them recognition, by learning how to achieve fair communication, and offer positive, valorizing feedback. Positive social support (Baard et al., 2004; Sprigg et al., 2019) will induce psychological well-being and decrease the distress of subordinates. Creating opportunities to obtain social support for all staff members and all parties involved should be a priority for organizations.

At the second prevention level, human resource management (HRM) has to ensure that social support is really possible and that aggressive direct, indirect, and cyber-behaviors at work can be prohibited and reported without consequence for employment. HRM has to react quickly and be attentive to organizational injustice and feelings of unfairness and mistreatment. Together with the employee, supervisors and advisers can also attempt to identify and condemn procedural, interpersonal, and informational injustice and a lack of support in cases of bullying.

At the same time, providing guidance (tertiary prevention) to workers with high psychological distress could help them understand the roles played by organizational managers and diminish their feelings of guilt and shame. Knowing and understanding the ways in which a work environment is unfair can help the workers themselves. It could help them to feel their true emotions such as sadness and anger (Desrumaux, Jeoffrion et al., 2018) in order to release these emotions and be freed of the burden of adversity. Proactive interventions of professionals must help victims develop coping skills and become more resilient in handling such situations so as to react quickly and consult qualified personnel. To come out of a bullying process (Desrumaux, 2011; Desrumaux, Jeoffrion et al., 2018), the targeted victim should insist on the seriousness of all kinds of

acts, including cyber-acts (emails, calls, etc.). The bullied employee should not be presented as a stigmatized person but as a pro-social employee able to deny any unfair negative information and seek justice. Saying that an employee is pro-social generates positive emotions, and such positive emotions are directly linked to social support (Martinko et al., 2007). These types of conduct will enable more social support from the organization. It is also necessary that bullied employees seek both social support from their relatives and social environment outside the workplace, and clinical support when off the job.

To conclude, workplace bullying, that is repetitive hostile actions against victims, affect their mental health, not only directly but also *via* a lack of social support and/or justice, particularly through a leader figure. This phenomenon is developing technologically and *via* informational and interpersonal types of justice. The many apparent causes of psychological distress, along with unvoiced mental problems are prevalent. Seeing fairness and respect in relationships, and both face-to-face and *via* digital communication, is a necessity for the health of the organization and its employees as well.

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