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Will the real mistreatment please stand up? Examining the assumptions and measurement of bullying and incivility

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ABSTRACT

Using two diverse cross-sectional samples ($n = 361$, 579), the authors investigated measurement impediments in current behavioural methods of operationalising workplace mistreatment by examining perceived intensity and intention attributions. Results indicated that bullying and incivility, assessed using common measures and analytical techniques, have moderate negative effects on employees that are not significantly different in effect size from one another, which is consistent with prior research. Using a separate measure of workplace aggression, participants were categorised using latent class clustering into groups reporting: 1. no mistreatment over the prior month (representing no mistreatment), 2. low intensity and low intentional mistreatment (representing incivility), and 3. high intensity and high intentional mistreatment (representing bullying). One-way ANOVAs with Tukey post-hoc tests indicated that those who experience bullying consistently reported more strain than the other two groups across both samples. Those reporting incivility reported significantly different turnover intentions from the other groups, but did not differ with regard to affective commitment and psychological strain. These results highlight the need for more attention to be paid to construct validity and advanced analytic techniques in mistreatment research, particularly with regard to incivility. Implications for the measurement of mistreatment constructs are discussed.

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Workplace mistreatment; incivility; bullying; psychological well-being; affective commitment; turnover intentions

Workplace mistreatment, or behaviour that causes or threatens to cause harm to others at work (e.g. Loeber & Hay, 1997), is a prominent job stressor that has received increasing attention over the past 25 years in the work and organisational health psychology literature due to both its frequency (Gerberich et al., 2004; NIOSH, 2009) and its particularly harmful impact on employees (Nixon et al., 2011; Schwartz & Stone, 1993). Researchers have identified distinct attributes of mistreatment experiences that impact how the targets of mistreatment respond, defined new constructs, and established new scales with which to measure these constructs. Consequently, the constructs examined under the broad umbrella of workplace mistreatment have multiplied rapidly, including concepts as bullying (e.g. Einarsen, 2000; Rayner, 1997), incivility (e.g. Andersson &

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Pearson, 1999), emotional abuse (e.g. Keashly et al., 1997), social undermining (e.g. Duffy et al., 2002), mobbing (e.g. Leymann, 1990), and victimisation (e.g. Aquino et al., 1999).

The constructs of incivility and bullying are often used to highlight several challenges that impact measurement in the workplace mistreatment field, including the use of measures that may not capture the distinctive elements that make the construct unique (e.g. Spector & Fox, 2005) and contain substantial item overlap (Hershcovis, 2011; Tepper & Henle, 2011). This measurement overlap is concerning given that each scale is purported to assess a distinctive and identifiable construct, and such overlap may inhibit detailed assessment and understanding of unique constructs as well as contribute to construct propagation. These challenges, which affect many workplace mistreatment scales, impede conclusions from being drawn regarding the distinct nuances of mistreatment experiences and workplace mistreatment more generally. Accordingly, researchers have called for unification within the field and measures that ensure the assessment of distinct nuances captured in related construct definitions (Spector & Fox, 2005; Hershcovis, 2011; Raver, 2008; Tepper & Henle, 2011). Although the workplace mistreatment continuum is likely anchored by violence at its most extreme end, incivility and bullying are often thought to represent contrasting ends of the psychological workplace mistreatment continuum, particularly with regard to intensity of mistreatment and intention attributions concerning aggressive acts (Cortina et al., 2017; Hershcovis, 2011). Given their unique nature, differences in measurement of these constructs and their associations with employee outcomes would be expected. However, the measures for these constructs include considerable content overlap, and their respective relationships with associated outcomes are almost indistinguishable (Hershcovis, 2011). The purpose of this study was to investigate methodological limitations and empirical distinctions between incivility and bullying by explicitly assessing two distinct characteristics that are identified as relevant for both of these constructs: intensity and intention attributions. Specifically, we investigated whether workplace mistreatment measures that capture these two distinguishing features of bullying and incivility do a better job of distinguishing these two forms of mistreatment than existing measures of incivility and bullying, as seen in significantly different relationships with employee outcomes of psychological strain, affective commitment, and turnover intentions.

Theoretical background

Incivility

In their seminal article, Andersson and Pearson (1999) introduced the construct of workplace incivility as "low-intensity deviant behaviour with ambiguous intent to harm the target, in violation of workplace norms for mutual respect" (p. 457). Uncivil behaviours are those that are rude, discourteous and show a lack of respect for other individuals in the workplace. Examples of such behaviours are failing to say thank you to a coworker or having a loud personal conversation on the telephone at work (Andersson & Pearson, 1999). Table 1 summarizes distinguishing characteristics of incivility and bullying constructs. A key defining feature of workplace incivility is its low-intensity nature; incivility is more passive, subtle, and indirect than other high-intensity forms of workplace mistreatment, such as workplace violence (Andersson & Pearson, 1999). Another important

Table 1. Comparison of incivility and bullying constructs and distinguishing characteristics.

	Incivility	Bullying
Definition	Low intensity deviant acts, such as rude and discourteous verbal and nonverbal behaviours enacted towards another organisational member with ambiguous intent to harm.[a]	Situations where a person repeatedly and over a period of time is exposed to negative acts (i.e. constant abuse, offensive remarks or teasing, ridicule or social exclusion) on the part of co-workers, supervisors or subordinates.
Intensity	Low[ad]	High. Scholars have argued that the intensity increases over time.[bg]
Intention attributions	Ambiguous intent to harm[ad]	Intentional. Some scholars argue that we should not consider perpetrators' intent to classify "objective" bullying, but most agree that intent is key to understanding the experience of bullying and its outcomes.[c]
Directness	Indirect and subtle direct acts[a]	Indirect and direct acts that range and increase in intensity[b]
Duration	Unspecified. An isolated event may constitute incivility. However, the "incivility spiral" suggests that uncivil acts may escalate into more intense aggression over time.[a]	Sustained; debate about the precise time frame. Some researchers argue that the pattern of behaviour must be sustained over a 6 month-period; others argue that it must be simply ongoing.[bf]
Frequency	None specified, could be low or high[d]	High. Most scholars agree that bully involves repetitive and constant acts.[bd]
Power imbalance	None specified, could be low or high[d]	Involves a power imbalance between the perpetrator and victim that makes it difficult for victims to defend themselves. The precise nature of the power imbalance remains a matter of debate and has been mostly excluded from empirical work.[bde]
Perpetrators	Organisational insiders (e.g. coworkers, supervisors) and organisational outsiders (e.g. customers, patients)[ad]	Most scholars agree that bullying is confined to organisational insiders. However, some have suggested that clients or customers can perpetrate bullying.[bg]

Key Sources: [a]Andersson and Pearson (1999); [b]Einarsen (2000); [c]Einarsen et al. (2011); [d]Hershcovis (2011); [e]Keashly and Jagatic (2011); [f]Zapf & Gross (2001); [g]Zapf et al. (2011).

distinction in the incivility construct is that it involves an ambiguous intent to harm (in the eyes of the instigator, the target, and/or the observer) (Andersson & Pearson, 1999). Thus, the same uncivil behaviour (e.g. neglecting to say thank you to a coworker) may be the result of conscious intent, oversight, or ignorance.

Incivility can occur within the context of any social encounter at work (Andersson & Pearson, 1999). Thus, workplace incivility can be perpetrated by both organisational insiders (e.g. coworkers or supervisors) and organisational outsiders (e.g. customers or patients) (Leiter et al., 2012; Sakurai & Jex, 2012; Wilson & Holmvall, 2013). A number of primary studies have linked workplace incivility to poorer job attitudes and well-being (e.g. Cortina et al., 2001); these findings are supplemented by meta-analytic evidence (Hershcovis, 2011). Incivility has also been linked to reduced job performance (Sliter et al., 2012), counterproductive work behaviours (Sakurai & Jex, 2012), and turnover (Porath & Pearson, 2010).

Bullying

Bullying occurs in situations in which an individual is repeatedly exposed to negative acts, ranging from subtle to overt, over a period of time by one or more other individuals (Einarsen, 2000). The sustained nature of workplace bullying distinguishes it from other

workplace mistreatment constructs: an isolated negative event does not constitute bullying (Einarsen, 2000; Hershcovis, 2011; Notelaers et al., 2019). The duration necessary to qualify bullying behaviours as "sustained" has varied in the literature, with some sources specifying specific duration (Einarsen et al., 2011) and others merely noting that negative acts must simply be repetitive and ongoing (e.g. Einarsen, 2000).

Through its sustained nature, bullying is proposed to follow a process of escalation in which the negative acts become increasingly severe and intense over time (Einarsen, 2000; Zapf & Gross, 2001). As such, a key feature of the bullying construct is that it is high in intensity (Hershcovis, 2011). The sustained duration and pattern of escalation aspects of bullying are more likely to be operationalised in European-based research, rather than North American (Keashly & Jagatic, 2011). Bullying is also frequently discussed as entailing a power imbalance, formal or informal, between perpetrator(s) and victim(s) (Einarsen, 2000; Hershcovis, 2011). This aspect of bullying often remains conceptual, rather than empirical (Keashly & Jagatic, 2011). Indeed, the most frequently used measure of bullying, the NAQ-R (Einarsen et al., 2009), does not explicitly assess a power imbalance. Rather, its authors argue that disempowerment is inherent in the bullying process given the duration of its hostile behaviours.

While bullying may or may not be motivated by intent to harm the victim (e.g. Nielsen et al., 2015; Zapf & Gross, 2001), intention seems to be critical when concerned with how victims interpret and experience bullying, as "there is little doubt that perception of intent may determine whether an individual decides to label their experience as bullying or not" (Einarsen et al., 2011, p. 20). Indeed, scholars have noted that the behaviours associated with bullying are "used with the *aim* or at least the effect of persistently humiliating, intimidating, frightening or punishing the victim" (Einarsen, 2000, p. 8, emphasis added). Thus, perceived intent seems to play an important role in explaining victims' perceptions that they have experienced bullying, and subsequent strain. Studies have found that individuals who label themselves as victims report experiencing more strain (e.g. Hewett et al., 2018; Vie et al., 2011).

Finally, although some have suggested that clients or customers can perpetrate bullying (e.g. Einarsen, 2000), there appears to be a broad consensus among researchers that the instigators of workplace bullying are restricted to those that are "inside" the organisation (namely, coworkers and supervisors) (Hershcovis, 2011; Zapf et al., 2011). Like workplace incivility, there is a substantial literature linking workplace bullying to negative individual and organisational outcomes. Meta-analytic evidence has found significant relationships between workplace bullying and negative job attitudes, physical and psychological well-being (Hershcovis, 2011), and absenteeism (Nielsen & Einarsen, 2012).

Measurement impediments

In terms of construct development, both incivility and bullying capture distinct characteristics or nuances of a target's experience of workplace mistreatment. However, it is unclear whether behavioural measures, which are the dominant method of operationalising mistreatment (Hershcovis & Reich, 2013), capture these nuances. For instance, scales assessing incivility do not include elements that gauge the target's perceptions of intensity or intention attributions (Raver & Barling, 2008). Typical assessments for

incivility (e.g. Cortina et al., 2001) instead include an inventory of behaviours that could potentially be seen as low intensity and with ambiguous intent to harm. Sample items assess behaviours such as being put down or condescended to, being addressed in unprofessional terms, and showing interest in one's opinions, without assessing how targets actually perceive these behaviours. In a similar vein, behavioural assessments for bullying (e.g. NAQ; Einarsen & Raknes, 1997) include items such as devaluing of work and opinions while referring to one's age and repeated reminders of blunders; these scales also do not capture targets' perceptions about the intensity and intention of these behaviours.

Furthermore, while the incivility and bullying/NAQ scales should assess unique constructs, they include items assessing analogous behaviours. For example, items from an incivility scale state, "showed little interest in your opinion" and "excluded you from professional camaraderie," whereas items from a bullying scale include, "Neglect of your opinions or views" and "social exclusion from co-workers or work group activities." Indeed, the use of analogous behaviours was to some extent intentional; Cortina et al. (2001) noted that the behaviours assessed via the incivility scale were consistent with common forms of workplace mistreatment identified by Einarsen and Raknes (1997). This item overlap alone does not necessarily invalidate construct measures (e.g. Tepper & Henle, 2011). It is possible, for instance, that the same behaviour considered incivility in one context might be considered bullying in another. Still, given the distinct nature of the underlying constructs, it does give rise to questions regarding the extent to which these measures adequately capture the unique nuances associated with incivility and bullying, as opposed to a more general construct of workplace mistreatment (i.e. behaviours on both ends of the continuum of mistreatment severity).

It is important to note that there have been numerous attempts at measurement refinement in the literature for specific workplace mistreatment constructs, particularly bullying.[1] In the bullying literature, one stream of research has examined how behavioural measures should be used to assess bullying the most accurately, particularly in terms of who qualifies as a victim. For instance, Notelaers and Einarsen (2013) argue for two cut-off scores or thresholds for the NAQ-R in order to distinguish non-victims, occasional victims, and victims. A recent study by Rosander and Blomberg (2019) refines their work by arguing for six categories instead, such as "at-risk" and "extreme" victims. However, a growing body of studies suggest that latent class analysis (LCA) affords superior construct validity than the threshold, self-labelling, or continuous approaches. For instance, Notelaers et al. (2006) compared the traditional operational classification method used by the NAQ to a latent class clustering (LCC) approach with six distinct of groups of employees, including non-victims, victims, occasional victims, and those exposed to only specific types of bullying behaviours (e.g. work-related bullying). They found evidence that the LCC method was superior to the traditional operational classification method used by the NAQ (which uses frequency of various acts to sort employees into victims and nonvictims only) in both construct and predictive validity. Other studies using LCC/LCA have corroborated these results (e.g. Notelaers et al., 2019). Another study of note is Notelaers et al. (2018), who found that bullying, as measured via LCC, was distinct from workplace aggression and conflict, and had distinct relationships with strain and well-being outcomes. Despite these important attempts at measurement refinement, a vast majority of behavioural

bullying research has utilised basic linear regression techniques (Notelaers et al., 2018). The statistical validity of this approach is hampered by its assumption that all behaviours are equal in interpretation and severity, among other concerns (Notelaers et al., 2018); yet it remains the convention in the field.

Attempts at measurement refinement are rarer in the incivility literature. One exception is Matthews and Ritter (2016), who recently provided validity evidence for a shortened measure of Cortina et al.'s (2001) workplace incivility scale. The authors retained items that minimised gender invariance and had modest ratings on intention to harm (i.e. intention attributions) and potential to harm (i.e. intensity), consistent with the low-intensity, more ambiguous nature of incivility.

Although these attempts at measurement refinement are important steps forward in the workplace mistreatment literature, a key issue remains concerning the role of employee perceptions and appraisals in their experience of workplace mistreatment (e.g. Lazarus & Folkman, 1984). This is a critical omission, as both bullying and incivility are inherently psychological constructs. Indeed, research suggest that we may be over- or under-estimating employees' experiences of specific forms of workplace mistreatment by relying solely on *a priori*, researcher-defined categories of behaviours (Nielsen et al., 2010; Salin, 2001). Accordingly, relying on sample averages to define specific acts as constituting incidents of bullying or incivility may obscure important differences that drive employee perceptions of whether or not an incident represents a form of workplace mistreatment. For instance, employees may be more or less predisposed to perceive an act as hostile based on individual differences (e.g. negative affectivity). Contextual or relational factors could also play a role: for example, an employee who has a long history working in close proximity with a disagreeable coworker may be unlikely to interpret that coworker's behaviours towards them as uncivil, as they have grown used to the treatment (or perhaps may see that it is directed at all other members in the office equally). Clearly these types of nuances are not adequately captured by traditional measures in which a given incident (e.g. being interrupted) is assumed to be perceived uniformly as uncivil across all employees. It is only by explicitly measuring employee perceptions regarding potentially negative acts at work that we can adequately capture the psychological dimensions that reflect the distinct theoretical underpinnings of different workplace mistreatment constructs.

Empirical relationships between these constructs and strain outcomes lend credence to the argument that these measures may be confounded with general workplace mistreatment experiences, failing to capture the constructs' distinct characteristics. Given the conceptual definitions of incivility and bullying, bullying is theoretically expected to be more strongly related to employee strain than incivility. However, this pattern has not been supported in meta-analysis (e.g. Hershcovis, 2011). Given the limitations in traditional measures of these constructs, conclusions could not be drawn concerning whether or not incivility is as detrimental as bullying for targets, whether the incivility behaviours assessed were perceived as low intensity and of ambiguous intent whereas the bullying behaviours assessed were perceived as intense and intentional, or whether the pattern of results were driven by other moderators. Nixon and Spector (2015) recently reported that, when intensity and intention attributions are explicitly measured, these attributes of workplace mistreatment experiences were associated with increased strain, as would be theoretically expected. However, this study did not attempt to

assess whether the current measures of these constructs capture their distinct definitional elements. As such, there is still a need for research that assesses common measures of incivility and bullying in tandem with directly evaluating each constructs' nuances.

Current study

In the present study, we aimed to evaluate whether distinct characteristics of workplace mistreatment are captured in common behavioural measures of incivility and bullying by explicitly assessing perceptions of intensity and intention attributions. We draw on established and frequently used measures of incivility (Cortina et al., 2001) and bullying (NAQ; Einarsen & Raknes, 1997) as well as a recently developed measure of workplace mistreatment that assesses prominent moderators of the target's experience of mistreatment. Specifically, we assess the targets' perceptions of workplace mistreatment intensity as well as their attributions about whether the perpetrator intended to cause them harm with their behaviour. By explicitly examining the characteristics on which these variables differ, firmer conclusions can be drawn with regard to both construct and methodological limitations. First, as previously reviewed, both incivility and bullying have been found to relate to a variety of employee strains (Hershcovis, 2011). Incivility at work has been associated with increased psychological strain and turnover intentions (Cortina et al., 2001; Lim et al., 2008), as well as decreased affective commitment (Porath & Pearson, 2010). Likewise, bullying has been associated with increased psychological strain in cross-sectional (Agervold & Mikkelsen, 2004) and longitudinal analyses (Sprigg et al., 2019) as well as increased turnover intentions (McCormack et al., 2009; Salin & Notelaers, 2017). Bullying has also been negatively associated with affective commitment (McCormack et al., 2009). We therefore hypothesise that incivility and bullying, as assessed by common measures and analysed using conventional statistical techniques, will relate to well-being and attitudinal strains.

Hypothesis 1: Incivility will be positively associated with (a) psychological strain and (b) turnover intentions and negatively associated with (c) affective commitment.

Hypothesis 2: Bullying will be positively associated with (a) psychological strain and (b) turnover intentions and negatively associated with (c) affective commitment.

Next, we assessed distinct characteristics of workplace mistreatment. Intensity of mistreatment refers to the level of perceived severity the target of mistreatment attributes to that behaviour (e.g. Barling, 1996). Theoretically, intensity is expected to impact the relationships between workplace mistreatment and strain such that exposure to higher intensity mistreatment will lead to greater strain (Hershcovis, 2011), and some evidence supports this contention (Nixon & Spector, 2015). Bullying is often conceptualised as severe workplace mistreatment (e.g. Einarsen, 2000; Zapf & Gross, 2001); thus, bullying is likely to be associated with mistreatment targets' perceptions of intensity and well as increased strain response. On the other hand, incivility is defined as a low-intensity form of mistreatment, thus a measure of incivility should more strongly relate to low (versus high) intensity mistreatment. Incivility researchers maintain that low-intensity uncivil behaviours still have a detrimental effect on the targets (e.g. Pearson et al., 2001), and it is important to explicitly test this assumption.

With regard to intention attributions, it is theoretically expected that if a target of mistreatment attributes intentionality on the behalf of the perpetrator, he or she will have a more negative reaction to the act (Neuman & Baron, 2005). Some evidence supports this relationship as well (Nixon & Spector, 2015). When intentions of the perpetrator engaging in mistreatment are ambiguous, such as would be expected with incivility, targets are expected to attribute less intentionality to the behaviour (e.g. Matthews & Ritter, 2016). As such, a measure of incivility should theoretically relate more strongly to lower intention attributions than a measure of bullying. Given the severe and sustained nature of bullying, on the other hand, this form of mistreatment is likely to be perceived as intentional (Hershcovis, 2011). Accordingly, we propose the following:

Hypothesis 3: Perceived (a) intensity and (b) intention attributions will be higher with bullying than with incivility.

Hypothesis 4: Perceived intensity associated with workplace mistreatment incidents will be positively associated with (a) psychological strain and (b) turnover intentions and negatively associated with (c) affective commitment.

Hypothesis 5: Intention attributions associated with workplace mistreatment incidents will be positively associated with (a) psychological strain and (b) turnover intentions and negatively associated with (c) affective commitment.

Further, to test the assumptions underlying the constructs of incivility and bullying, intensity and intention attribution must be examined in tandem, allowing some conclusions to be drawn about the extent to which common incivility and bullying measures capture the distinct conceptual elements of the constructs. In line with the North American tradition, we adapt a simple definition of bullying that consists of two dimensions: intensity and perceived intentions to harm, as these dimensions are defining features shared between both the bullying and incivility constructs. We focus exclusively on these two dimensions in order to obtain a direct comparison of the extent to which certain features of bullying and incivility correspond to the expected levels of various strain outcomes. Indeed, numerous reviews on incivility use high (versus low) intensity and high (versus low) ambiguity as the two primary dimensions that distinguish the incivility and bullying constructs (Cortina et al., 2017; Schilpzand et al., 2016). Recent qualitative data collected across 13 countries / regions corroborates the importance of these two dimensions in understanding what employees consider bullying behaviours; of the 10 criteria identified, the degree of negative effects on the victim (intensity) and intention to harm were two of the top three (Salin et al., 2019). Still, it is important to note that our operationalisation of bullying does not include every conceptual feature of bullying.

Based on the literature review provided above, we expect that employees experiencing incivility would report more strain than employees who do not experience any workplace mistreatment. Further, we would expect employees experiencing bullying to report more strain that employees experiencing incivility. That is, the combined influence of low intensity perceptions and low intention attributions on employee strain must be compared to: (1) individuals who experience no incidents of workplace mistreatment, to ensure that incivility is a stressor that relates to employee strain; and (2) individuals who report high intensity perceptions and high intention attributions, to ensure that

the construct of incivility is distinct from that of bullying. Accordingly, we propose the following hypotheses:

Hypothesis 6: Individuals reporting low intensity perceptions and low intention attributions made about mistreatment incidents (incivility) will experience (a) higher psychological strain, (b) higher turnover intentions, and lower (c) affective commitment than individuals who do not experience workplace mistreatment (no mistreatment).

Hypothesis 7: Individuals reporting high intensity perceptions and high intention attributions made about mistreatment incidents (bullying) will experience (a) higher psychological strain, (b) higher turnover intentions, and (c) lower affective commitment than individuals reporting low intensity and low perceived intention (incivility).

Method

Participants

Data for this study were drawn from two samples that were analysed separately.

Sample 1. Participants in Sample 1 consisted of 361 employed individuals from a variety of industries and organisations throughout an urban southeastern area of the U.S.; they were also enrolled in courses at a large university. Participants ranged from 18 to 60 years of age, with an average of 22 years ($SD = 4.20$) of age. Of the total sample, 289 participants were female (78%) and 82 participants were male (22%). They were all part- or full-time employees, with hours worked per week ranging from 8 to 45, with a mean of 24 ($SD = 8.78$). Additionally, the participants' tenure ranged from 2 months to 20 years, with an average of 2 years and 5 months ($SD =$ 20 months).

Sample 2. Participants for Sample 2 were 579 nurses employed at a large, private, not-for-profit hospital in an urban southeastern area of the U.S. who responded to an emailed invitation sent to approximately 900 nurses (64% response rate). Nurses were chosen as the study population due to the high occurrence rate of mistreatment they generally experience (Elliott, 1997; Ramsay et al., 2006). Participants in this sample were mostly female (90%) and 40 years old on average ($SD = 11.92$), with a range of 19–69. These participants worked an average of 38 h per week ($SD = 7.39$) and reported working at their current organisations for an average of 6 years and 7 months ($SD = 6$ years), with a range of 1 month to 40 years. Data from this sample were previously published in Nixon and Spector (2015), but both the unique outcome variables and data analytic approach distinguish the current report.

Procedures

Participants in Sample 1 were recruited via an online participant portal hosted by the university in which they were enrolled. Participants in Sample 2 received an email invitation to participate via their organisational email. All participants completed an electronic questionnaire posted on a web-based service, with informed consent information explained on the first page of the survey. They were offered incentives to participate in the form of class credit for Sample 1 and an $8.00 Starbucks gift certificate for Sample 2. These were the only benefits for individuals participating in this study.

Measures

Demographic information was collected regarding the participants' age, gender, job tenure, and number of weekly work hours through self-report at the beginning of the survey. Instructions requested that all measures should be considered over the past 30 days, with the exception of the NAQ, which instructed participants to consider the past six months. Coefficient alphas are reported below.

Workplace mistreatment

Experience of workplace mistreatment was assessed as the frequency of 7 types of aggressive behaviour over the previous month, including verbal aggression, intimidation, social exclusion, undermining, rude behaviour, interpersonal conflict, and physical aggression. Workplace mistreatment was measured using a 6-point frequency response scale, ranging from "Not at all" to "5 or more times." Scores were averaged across all items, and a higher number indicates more frequent exposure to workplace mistreatment. Additional details of reliability and evidence for validity have been published elsewhere (e.g. Nixon, 2012; Nixon & Spector, 2015).

Intensity

Perceived intensity was assessed in response to experienced mistreatment for each of the seven forms of workplace mistreatment assessed via the workplace mistreatment measure. For example, participants were asked, "In general, how much do these acts of verbal aggression upset you?" Responses were measured with a 6-point response scales ranging from "not at all" to "greatly." Scores were averaged across all items rated, with higher scores indicating higher perceived intensity. Additional details of reliability and evidence for validity have been published elsewhere (e.g. Nixon, 2012; Nixon & Spector, 2015).

Intention attributions

As with intensity, intention attributions were assessed in response to experienced mistreatment for each of the seven forms of workplace mistreatment assessed via the workplace mistreatment measure. A sample item was, "In general, you feel these acts of exclusion were intended to harm you." Responses were measured with a 6-point response scare ranging from "strongly disagree" to "strongly agree." Scores were averaged across all items, with higher scores indicating higher attributions of intention. Additional details of reliability and evidence for validity have been published elsewhere (e.g. Nixon, 2012; Nixon & Spector, 2015).

Workplace bullying

The Negative Acts Questionnaire (NAQ; Einarsen & Raknes, 1997) was used only in Sample 1 to measure bullying in the workplace. This scale contains 18 items to which respondents used a 5-point frequency response scale, ranging from "Never" to "Every day." A sample item from this scale was "Neglect of your opinions or views." A higher score indicates more frequent experience of bullying at work. The coefficient alpha for this scale was .94 in this study for Sample 1. We confirmed that 5% of our sample had an average score above 2.5 on this scale (between the "occasionally" and "monthly"

scale points), thus meeting Notelaers et al.'s (2019) criteria of at least 4.56% of employees in a given sample to exceed this threshold on a behavioural measure of bullying in order to confirm some exposure.

Incivility

Incivility was measured only in Sample 1 using the 7-item scale developed by Cortina et al. (2001). The 5-point response options for this scale range from "Never" to "Daily." Participants were asked to focus on their supervisors or co-workers' behaviour. A sample item from this scale was "Put you down in a condescending way." A higher score indicates more frequent experience of incivility at work. The coefficient alpha for this scale was .91 in this study for Sample 1.

Psychological strain

The 3-item irritation subscale from the Brief Symptom Inventory 18 (Derogatis, 2003) was used to measure psychological well-being. A sample item from this scale was "I get aggravated." Five response choices ranged from "Never or a little at a time" to "Most of the time." Higher scores indicate higher psychological strain. The coefficient alphas for this scale were .88 for Sample 1 and .91 for Sample 2.

Affective commitment

The shortened 6-item affective commitment scale was used for Sample 1, and the shortened 4-item scale was used for Sample 2 (Allen & Meyer, 1996). This scale is measured on a 6-point Likert-type response format, ranging from "Strongly agree" to "Strongly disagree." A sample item from this scale is "I would be very happy to spend the rest of my career with this organization." Higher scores indicate higher commitment. The coefficient alpha for this scale was .80 for Sample 1 and .83 for Sample 2.

Turnover intentions

For Sample 1, turnover intentions were measured with a single item from Spector et al. (1988): "How often have you seriously considered quitting your job?" Response choices were on a 5-point scale, ranging from "Never" to "Extremely often." Higher scores indicate higher intention to turnover. For Sample 2, turnover intentions were assessed by the 3-item turnover intentions scale from the Michigan Organizational Assessment Questionnaire (Cammann et al., 1979). The 6 response choices range from "Strongly disagree" to "Strongly agree." An example item is "Recently, I often think of changing the current job." Higher scores indicate higher turnover intention. The coefficient alpha for this scale was .92 for Sample 2.

Statistical analysis

Confirmatory factor analysis (CFA) and latent class analysis (LCA) were performed using *Mplus* version 7.4 (Muthen & Muthen, 2015). The CFA used full maximum likelihood estimation. The LCA was used to identify classes of individuals based on their responses to the intensity and intention attribution scales. Sequential LCA models were evaluated, including 2, 3, 4 and 5 cluster solutions. The optimal number of classes was identified based on the Bayesian Information Criteria (BIC), sample-size adjusted BIC (lower

values indicate an improved fit), and bootstrap likelihood ratio tests (BLRT) (Nylund et al., 2007). The size, nature, and distinctiveness of each latent class were considered to ensure a parsimonious and meaningful solution. Z-tests for dependent correlations were performed using Lee and Preacher's (2013) calculator. Other analyses were conducted using SPSS 22 software (IBM Corp. Armonk, NY). Tukey post-hoc tests were used in conjunction with ANOVAs to control the overall significance level while probing difference between the means examined.

Results

The means, standard deviations, and Pearson correlations between all study variables are presented in Table 2. In Samples 1 and 2, most participants reported experiencing multiple types of workplace mistreatment in the prior month. Seventy-five (75) and 46 participants, or 21% of Sample 1 and 8% of Sample 2, reported that they had not experienced any workplace mistreatment during the prior month. The difference in the proportions of participants from each sample reporting no experience of workplace mistreatment are reasonable given that nurses are 16 times more likely to experience workplace mistreatment than workers in general (Elliott, 1997). General workplace mistreatment was associated with employee strain in the expected direction across both samples, with effect sizes ranging from $r = .29$ to .43.

The specific incivility and bullying measures showed limited evidence of discriminability in Sample 1. The two measures were highly correlated with one another (Pearson correlation = .83, latent factor correlation = .89). However, a confirmatory factor analysis with one independent factor demonstrated marginal fit, with certain indices failing to meet commonly accepted criteria (see Hu & Bentler, 1999; Kline, 2005): $\chi^2(272) = 628.27$, $p = .01$; CFI = .88; TLI = .87: root mean square error of approximation (RMSEA) = .06; standardised root mean square residual (SRMR) = .05. A two-factor model demonstrated incremental improvement in fit $\chi^2(271) = 568.79.27$, $p = .01$; CFI = .90; TLI = .89; RMSEA = .06; SRMR = .05. Both the incivility and bullying measures were significantly related to employee strain in the expected directions, supporting Hypotheses 1a–1c and 2a–2c. *T*-tests for dependent correlations confirmed that the magnitudes of the respective relationships between incivility and bullying did not vary significantly for employee psychological strain (*t*-test = 0, $p = .50$), affective

Table 2. Means, standard deviations, and Pearson correlations between all study variables.

	Mean	*SD*	1	2	3	4	5	6	7	8
Mean			2.20	3.03	3.28	–	–	2.44	4.01	2.76
SD			1.06	1.18	1.29	–	–	.95	1.15	1.61
1. Workplace Mistreatment	1.82	.78		.32*	.49*	–	–	.38*	−.31*	.42*
2. Intensity	2.33	.94	.43*		.43*	–	–	.30*	−.22*	.21*
3. Intention Attributions	2.19	.98	.46*	.45*			–	.23*	−.27*	.29*
4. Bullying	1.38	.55	.67*	.35*	.39*			–	–	–
5. Incivility	1.58	.72	.68*	.40*	.40*	.83*			–	–
6. Psychological Strain	1.67	.64	.43*	.30*	.44*	.41*	.41*		−.23*	.32*
7. Affective Commitment	2.91	.85	−.29*	−.17*	−.13*	−.25*	−.26*	−.15*		−.52*
8. Turnover Intentions	2.58	1.47	.43*	.25*	.24*	.41*	.43*	.25*	−.58*	

Note: *$p < .01$, Sample 1 $n = 361$; Sample 2 $n = 579$. Values below the main diagonal are from Sample 1; values above the main diagonal are from Sample 2.

commitment (t-test = .34, p = .37), or turnover intentions (t-test = −.72, p = .24), consistent with prior research.

Further, incivility and bullying were strongly and almost equivalently related to general workplace mistreatment (r = .68, .67, respectively), and had moderate relationships with intensity (r = .40, .35, respectively) and intention attributions (r = .40, .39, respectively). T-tests for dependent correlations confirmed that the magnitudes of the relationships between incivility and bullying with intensity (t-test = −1.76, p = .08) and intention attributions (t-test = −.36, p = .72) were not significantly different. Regression analyses revealed that the intercepts for incivility were higher than or equivalent to those for bullying with intensity (B = 1.34, 1.24, respectively) and intention attributions (B = 1.50) (see Table 3). These results fail to support Hypothesis 3a or 3b, and are counter to what would be theoretically expected given the construct definitions of incivility and bullying. Taken together, these results suggest that one or both of the measures may reflect a broader underlying mistreatment construct that captures behaviours ranging from low to high severity (i.e. behaviours typically associated with incivility *and* bullying).

Supporting Hypothesis 4a–4c, intensity was significantly and positively associated with psychological strain (r = .30, .30, respectively) and turnover intentions (r = .25, .21, respectively) and negatively associated with affective commitment (r = −.17, −.22, respectively) across both Sample 1 and Sample 2. Intention attributions was significantly and positively associated with psychological strain (r = .44, .23, respectively) and turnover intentions (r = .24, .29, respectively) and negatively associated with affective commitment (r = −.13, −.27, respectively) across both Sample 1 and Sample 2. These results provide support for Hypotheses 5a–5c.

Based on LCA results for both samples (see Table 4), the four-class model provided a better model fit compared to the alternative models. For Sample 2, the fit of the five-class model was significantly better than the four-class model. However, the improvement of fit for the fifth class was small and the new class represented a subdivision of a class identified in the four-class model that was not distinctive and did not add any conceptual clarity. This, along with the clear model fit indictors from Sample 1, indicated that the four-class solution was optimal.

Across Sample 1 and Sample 2, the first class best aligned with incivility, with employees reporting experienced mistreatment that was both low perceived intensity (M = 1.39, 2.05, respectively) and intention attributions (M = 1.36, 1.86, respectively). The second class represented a bullying-like variable, with employees reporting experienced mistreatment that was both high perceived intensity (M = 3.47, 4.67, respectively) and intention attributions (M = 3.48, 4.55, respectively). The third and fourth classes (see Table 5)

Table 3. Unstandardised regression coefficients.

	Intensity			Intention Attributions		
	R	*B*	SE	*R*	*B*	SE
Intercept	.39	1.24	.13	.35	1.51	.13
Bullying		.86	.09		.58	.09
Intercept	.40	1.34	.12	.40	1.50	.12
Incivility		.53	.07		.51	.07

Note: *B* represents the unstandardised regression coefficient; SE = standard error; All coefficients are significant at $p < .01$.

Table 4. Model fit indices for the latent class analysis.

	Sample 1			Sample 2		
Classes	BIC	Adjusted BIC	BLRT *p value*	BIC	Adjusted BIC	BLRT *p value*
2	1797.70	1775.49	–	3541.72	3519.50	–
3	1779.26	1747.54	<.001	3516.95	3485.21	<.001
4	1742.59	1701.36	<.001	3475.92	3434.65	<.001
5	1788.43	1737.68	1.00	3474.96	3424.17	<.001

Table 5. Class descriptions.

	Sample 1				Sample 2			
Class	*N*	Percent	Intensity Mean	Intention Attribution Mean	*N*	Percent	Intensity Mean	Intention Attribution Mean
1	107	32.2	1.39	1.36	156	28.9	2.05	1.86
2	63	19.0	3.47	3.48	112	20.7	4.67	4.55
3	99	29.8	1.76	2.93	177	32.8	2.77	3.52
4	63	19.0	2.92	1.88	95	18.0	4.58	2.23

included employees reporting experienced mistreatment that was moderate on perceived intensity and intention attributions compared to the first and second classes, with all means falling between those of the first two classes. Given the aim and hypotheses of this study, classes 1 (incivility) and 2 (bullying) were examined, along with those employees who reported experiencing no mistreatment.

Based on one-way ANOVAs, all of the outcome variables differed significantly across the three levels of mistreatment exposure in both Sample 1 and Sample 2 (see Table 6). Based on the adjusted R^2, differences among these three categories –incivility, bullying, and no mistreatment - accounted for 20% of the variance in psychological strain for Sample 1, and 15% in Sample 2. For affective commitment, differences among the three categories accounted for 13% and 14% of the variance in Sample 1 and 2, respectively. Finally, for turnover intentions, 23% and 19% of the variance was accounted for in Sample 1 and 2, respectively.

Tukey post-hoc comparisons presented in Table 7 indicate that, at $p < .05$, employees experiencing bullying reported a significantly higher amount of psychological strain across Samples 1 and 2 ($M = 2.11$, $SD = 0.66$; $M = 2.90$, $SD = 0.99$, respectively) than

Table 6. Oneway ANOVA results for Sample 1 and Sample 2.

	Sample 1					Sample 2				
	SS	*df*	Mean Square	*F*	Adj. R^2	SS	*df*	Mean Square	*F*	Adj. R^2
Psychological Strain										
Between	16.98	2	8.49	23.90*	.20	44.21	2	21.61	25.98*	.15
Within	76.38	215	.36			237.88	286	.83		
Total	93.36	217				281.09	288			
Affective Commitment										
Between	10.72	2	8.20	8.20*	.13	56.67	2	28.33	24.12*	.14
Within	140.52	215	.65			339.51	289	1.18		
Total	151.24	217				396.17	291			
Turnover Intention										
Between	75.79	2	37.90	20.88*	.23	151.98	2	75.99	35.27*	.19
Within	375.73	207	1.82			622.63	289	2.15		
Total	451.52	209				774.61	291			

Note: *$p < .001$.

Table 7. Tukey post hoc test results for Sample 1 and Sample 2.

	Sample 1 Subsets				Sample 2 Subsets			
	n	1	2	3	*n*	1	2	3
Psychological Strain								
No Mistreatment	75	1.44			42	1.94		
Incivility	82	1.53			142	2.16		
Bullying	61		2.11		105		2.91	
Significance		*.38*				*.30*		
Affective Commitment								
No Mistreatment	75	3.31			44	4.49		
Incivility	82		2.99		143	4.30		
Bullying	61		2.75		105		3.44	
Significance			*.07*			*.28*		
Turnover Intention								
No Mistreatment	74	1.77			44	.1.75		
Incivility	80		2.30		143		2.40	
Bullying	56			3.30	105			3.68

Note: Means for groups are displayed. Subsets indicate significantly different group means at $p < .05$, with *p*-values noted for non-significantly different group means.

those experiencing incivility ($M = 1.53$, $SD = 0.64$; $M = 2.16$, $SD = 0.82$, respectively) or reporting no mistreatment ($M = 1.44$, $SD = 0.60$; $M = 1.94$, $SD = 0.93$, respectively); the latter two groups did not vary significantly from one other. These results support Hypothesis 7a, but fail to support Hypothesis 6a. Individuals experiencing incivility in both Samples 1 and 2 reported significantly higher turnover intentions ($M = 2.30$, $SD = 1.42$; $M = 2.40$, $SD = 1.33$, respectively) than those reporting no mistreatment ($M = 1.77$, $SD = 1.20$; $M = 1.76$, $SD = 0.98$, respectively), supporting Hypothesis 6b. Those experiencing bullying reported a significantly higher amount of turnover intentions than either other group across Sample 1 ($M = 3.30$, $SD = 1.43$) and Sample 2 ($M = 3.55$, $SD = 1.80$), supporting Hypothesis 7b. Finally, those experiencing bullying ($M = 2.75$, $SD = 0.80$) and incivility ($M = 2.99$, $SD = 0.78$) reported a significantly lower amount of affective commitment in Sample 1 than those experiencing no mistreatment ($M = 3.31$, $SD = 0.84$). Affective commitment did not differ significantly for those experiencing bullying and incivility, although these effects were approaching significance in the expected direction. In Sample 2, those experiencing bullying ($M = 3.44$, $SD = 1.23$) reported a significantly lower amount of affective commitment than those experiencing incivility ($M = 4.30$, $SD = 1.00$) or no mistreatment ($M = 4.49$, $SD = 0.97$), which did not significantly vary from one other. These results provide partial support Hypotheses 6c and 7c, supporting the idea that individuals who reported bullying experienced a higher level of strain, and providing some evidence that those reporting incivility experienced higher levels of strain.

Finally, ANCOVA post-hoc analyses controlling for the frequency of mistreatment experiences revealed minimal changes in the results. For Sample 1, relationships remained the same for psychological strain and affective commitment, although turnover intention did not vary significantly across groups ($F = 1.95$, $p = .14$). Frequency was a significant factor in analyses for psychological strain ($F = 17.01$, $p < .001$) and turnover intentions ($F = 11.75$, $p < .001$), but not in affective commitment ($F = .37$, $p = .54$). Results for Sample 2 remained identical; frequency was a significant factor in analyses for psychological strain ($F = 25.00$, $p < .001$), affective commitment ($F = 7.31$, $p < .001$), and turnover intention ($F = 21.48$, $p < .001$).

Discussion

The current study examined employees' experiences of specific types of workplace mistreatment, thus providing a more refined comparison of bullying and incivility in their relationship with strains. By examining employees' actual, versus assumed, experiences regarding the intensity of mistreatment and attributions made about the intentionality of aggressive acts, an important step was taken to address complex questions regarding construct proliferation, measurement overlap, and our current ability to assess workplace mistreatment constructs as they are typically defined and operationalised. Specifically, by defining and assessing incivility as low perceptions of intensity and intentionality, and bullying as high perceptions of intention and intentionality, evidence from 940 employees across two samples support the notion that bullying is an important workplace mistreatment construct that can have deleterious effects on employees' psychological strain and job attitudes. Incivility, however, exhibited inconsistent differences in employee strain variables when compared to employees not experiencing any mistreatment. These findings have important implications for our understanding of these constructs, as well as their currently used behavioural measures.

In line with theoretical expectations and limited prior research evidence (Nixon & Spector, 2015), perceived intensity and intention attributions, when explicitly assessed, were associated with increased employee strain. Specifically, employees who reported higher intensity or intention attributions about the workplace mistreatment they had experienced reported increased psychological strain and intentions to turnover, while also reporting reduced affective commitment. Controlling for frequency did not alter the pattern of focal relationships, although it was significant by itself in all but one analysis. This indicated that intensity and intention attributions explain important variance in mistreatment experiences above and beyond frequency. Taken together, these findings support the fundamental tenets of many workplace mistreatment constructs beyond those specifically targeted in this study. Intensity, for example, has been an explicitly or implicitly implied tenet of many workplace mistreatment concepts, including emotional abuse (Keashly et al., 1997) and mobbing (Leymann, 1990). Likewise, intention attributions have been explicitly or implicitly implied in constructs such as victimisation (Aquino et al., 1999) and social undermining (Duffy et al., 2002). Given the conflation between the broad experience of workplace mistreatment and the specific nuances associated with these constructs, it is important to verify that the theoretical assumptions underlying these constructs are valid. Critically, this allows us to draw conclusions regarding the extent to which identified relationships between workplace mistreatment constructs and resulting strains are driven by theoretically relevant factors.

Given that intensity and intention attributions demonstrated the theoretically expected relationships with employee strain, incivility and bullying were assessed based on several of their prominent underlying characteristics. Incivility was assessed as workplace mistreatment that was both perceived to be low in intensity as well as low in intentionality, while bullying was assessed as workplace mistreatment that was perceived to be both high in intensity as well as high intentionality. As such, significant differences were found between groups that included employees who reported experiencing no workplace mistreatment, those who reported experiencing incivility, and those who reported experiencing bullying for each of the strains examined. When these

results were probed further, we found that employees experiencing incivility from Sample 1 reported significantly greater intentions to turnover and lower affective commitment than those who reported experiencing no workplace mistreatment. For participants reporting incivility across both samples, there were no significant differences in psychological strain (and turnover intentions or affective commitment in Sample 2) when compared to those reporting no workplace mistreatment. These findings provide some evidence that incivility is a milder form of workplace mistreatment with an inconsistent effect on employees. Specifically, mistreatment that is perceived as low intensity and of ambiguous intent affected only turnover intentions, and did not consistently affect psychological strain in either sample.

It is possible that our pattern of results reflects the mild nature of incivility. In other words, our findings might indicate that incivility has less of an impact on psychological well-being, and may instead be more likely to impact employee attitudes and intended behaviours, which is arguably consistent with its theoretical definition. For instance, incivility may annoy employees and increase their desire to withdrawal to a more civil work environment, but the experience of incivility may not be so negative that it elicits more extreme responses, such as disturbed sleeping or depression. Investigating this alternative is an important area for future research.

In regard to bullying, employees experiencing high intensity and intentional mistreatment reported significantly greater psychological strain and turnover intentions, along with reduced affective commitment, compared to those experiencing no workplace mistreatment or incivility (with the exception of affective commitment in Sample 1). These findings suggest that bullying, as a severe form of workplace mistreatment, is a stressor that has moderate to strong relationships with employee strain.

Importantly, the findings from these two samples align with theoretical expectations that bullying should be more detrimental (i.e. have stronger relationships with employee strain) than incivility. These findings, using measures designed to assess the distinguishing characteristics of incivility and bullying, differ from prior research using measures that were not designed to capture distinguishing features (e.g. Hershcovis, 2011). Further, our results using existing scales found similar effect sizes across strain outcomes associated with incivility and bullying, which is consistent with prior studies. This raises the question of whether one or both scales and typically used analytical techniques are capturing their intended constructs. As previously noted, numerous studies have demonstrated the construct validity of the NAQ when assessed using LCA/LCC, but the predominant method in the bullying literature treats scores on the NAQ/NAQ-R as continuous. Our results, which used basic linear regression techniques, further underscore the concern about the construct validity of the NAQ as it is typically used (e.g. Notelaers et al., 2018). Thus, our results further highlight the need for more advanced analytic techniques such as LCA / LCC in the bullying literature (Notelaers et al., 2019) and further evidence of construct validity in the incivility literature.

Although this study focused exclusively on incivility and bullying given their distinct positions along the workplace mistreatment continuum, it is important to note that the findings of this research have important implications for a variety of workplace mistreatment constructs that also may be inadequately assessed. As previously noted, constructs such as emotional abuse (Keashly et al., 1997), mobbing (Leymann, 1990), victimisation (Aquino et al., 1999), and social undermining (Duffy et al., 2002) all contain assumptions

regarding intensity and intention attributions, but it is presently unclear if the measures for these constructs are adequately capturing these, or other, distinct elements. More research will be needed in the future to clarify the impact of these distinct elements on stressor – strain relationships, as well as the extent to which commonly used measures for these constructs capture these elements.

Moving forward, there are several ways that the measurement challenges associated with these workplace mistreatment constructs could be addressed. First, there is a need to develop mistreatment scales that adequately assess important distinctions between mistreatment constructs, such as perceptions of intensity and attributions made about intentions. It seems that behaviours intended to capture these characteristics have failed to do so, given the moderate-to-strong relationships between a traditional incivility scale with employee strain variables versus the smaller-to-nonsignificant relationships identified when these attributes of incivility were explicitly assessed. Future scale development in this area may incorporate explicit terminology into scale items to ensure that definitional properties are being assessed, or explicitly assess these properties in subscales. Further refinement of distinct operational (e.g. self-labelling; Nielsen et al., 2010) and analytical approaches (Notelaers et al., 2006, 2018) would also be helpful as researchers continue to investigate the best method of capturing the distinct characteristics of various mistreatment constructs. Of the two mistreatment constructs examined in this study, the need to investigate methodological limitations appears to be much greater in the incivility literature than in the bullying literature, given that the former has received very little attention in its respective field.

Limitations

Both samples in this study provided self-report data. As such, we cannot rule out the possibility that shared biases (i.e. common method variance) may affect bivariate relationships. However, given that perceptual nature of the study variables, self-report measures are the most appropriate option to assess the subjective perceptions and experiences (Schaubroeck, 1999; Spector, 1999). Furthermore, data collected from these samples was done so using a cross-sectional design, limiting assumptions concerning causality. In the future, research building upon this area can be enhanced by the use of diverse research designs, including longitudinal designs, experimental designs, and diary or event study methodologies, as well as use of organisational records of incidences of psychological or physical mistreatment or withdrawal behaviours, such as attendance or turnover. These designs could further illuminate how workplace mistreatment and the distinct characteristics of these constructs relate to employee strain and allow for the impact of duration of bullying to be examined. Given the mild nature of incivility, using an event or diary study could capture daily or weekly fluctuations in employee strain responses.

The participants in both samples were predominately female and included employees enrolled at a local university and nurses. Expanding this research to other samples can help us understand the robustness of these findings across diverse employment environments. For instance, in the bullying literature, gender differences have been identified, in that women have reported greater prevalence of bullying (Salin, 2003) and higher perceptions of severity (Escartín et al., 2011). The question of gender differences remains a topic

of debate in the incivility literature (Schilpzand et al., 2016). Utilising more gender-balanced samples would allow for gender comparisons that would provide insight into questions of gender differences in perceptions and prevalence of both incivility and bullying. Moreover, demographic information was collected at the start of these surveys. In the future, researchers could collect demographic data at the end of the survey to ensure responses to the measures of interest are not impacted by the survey design (e.g. Teclaw et al., 2012).

There are two scale concerns that should be noted. First, the original NAQ (Einarsen & Raknes, 1997) was used rather than the NAQ-R (Einarsen et al., 2009), which addressed several limitations of the NAQ. The NAQ-R should be examined in future research. Further, the scales used to assess workplace mistreatment, intensity, and intention attributions were recently developed measures. While early evidence for reliability and validity has been provided across a limited number of studies and samples (Nixon, 2012; Nixon & Spector, 2015), future research could confirm these findings using different methods, providing construct validity evidence and convergence of conclusions. Finally, this evaluation did not incorporate all notable dimensions of bullying, such as its sustained duration and the power imbalance between victims and perpetrators. As such, our operationalisation of bullying may reflect a milder form. Measures that incorporate these additional characteristics might show stronger effects.

Implications and future research directions

This research contributes to the workplace mistreatment literature in several important ways. First, these findings provide evidence that concern about measurement overlap and poor scale construct alignment and validity are well-founded (Hershcovis, 2011; Tepper & Henle, 2011). Our results suggest that research investigating incivility and/or bullying using predominant measurement methods and statistical techniques may indeed be conflated with that of general workplace mistreatment, and/or each other. This evidence should galvanize researchers to ensure that workplace mistreatment measures accurately assess constructs so that we can precisely study and advance knowledge surrounding workplace mistreatment. Future research is needed in this area to verify the replicability of these results and to establish behavioural measures for constructs that capture their distinct assumptions, thus avoiding the current complications surrounding current measures.

Second, although measurement of these constructs will need further research attention, this study provides evidence supporting the theoretical assumptions underlying the constructs of bullying and, to some extent, incivility. When workplace mistreatment was both high in intensity and intention attributions, its association with strain outcomes was generally stronger than in other conditions, indicating that bullying is a more severe form of workplace mistreatment. On the other hand, when workplace mistreatment was both low in intensity and intention attributions, its association with strain outcomes was weaker, and in some cases no worse than experiencing no mistreatment at all. However, these findings beg the question of how to best examine incivility. As the mildest forms of workplace mistreatment, it could be that its impact on employees is perhaps both mild *and* fleeting. If this is the case, a longer time frame may be an inappropriate way to

examine this type of mistreatment. It might be that studies employing narrower time frames (e.g. experience or event sampling) would be more appropriate to assess the effects of incivility. For instance, several studies have identified daily impacts of incivility on stress (e.g. Beattie & Griffin, 2014) and negative affect (e.g. Zhou et al., 2015), although it is unclear how measurement impediments affected these findings. Future research should consider these possibilities by examining incivility and bullying at the daily level. Finally, this research cannot speak to the role of incivility in the "spiral of mistreatment," or how norms of reciprocity encourage employees to respond to acts of mistreatment with further acts of mistreatment, which escalates over time (e.g. Andersson & Pearson, 1999). It is possible that simple acts of incivility are weakly related to strains, but these acts might lead to escalating conflict and more severe mistreatment forms that are linked to strains. Future research will be critical in understanding how incivility impacts diverse employee strains (psychological, physical, behavioural), the appropriate time frame or design with which to examine incivility, and how incivility may escalate mistreatment over time.

Conclusions

In sum, this study attempts to answer a concern that has been voiced many times in recent years – namely, the extent to which the relationships identified between workplace mistreatment constructs and employee strain are attributable to the distinct characteristics of the constructs. Based on these findings, evidence indicates that one or both traditional construct measures of incivility and bullying, as analysed using predominant statistical techniques, fail to capture their unique characteristics. However, our results also suggest that recently constructed measures designed to capture distinctions rather than commonalities of these two constructs, along with more novel advanced statistical techniques, do in fact create an increasingly nuanced picture. Thus, questions arise regarding what conclusions can actually be drawn about many unique, interesting, and seemingly important workplace mistreatment constructs to the extent that they are typically measured and analysed. It is critical that research in this area continue developing and refining appropriate and valid measures in order to advance our understanding of how unique mistreatment constructs predict important employee outcomes.

Notes

1. Another form of operationalising mistreatment, particularly bullying, includes "self-labelling," which has been found to capture some information regarding respondents' appraisals (Baillien et al., 2017). Potential limitations of this approach include lower prevalence rates (Salin, 2001) and subjective bias in participants' labelling (Saunders et al., 2007).

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References

Agervold, M., & Mikkelsen, E. G. (2004). Relationships between bullying, psychosocial work environment and individual stress reactions. *Work and Stress*, *18*, 336–351. https://doi.org/10.1080/02678370412331319794

Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior*, *49*(3), 252–276. https://doi.org/10.1006/jvbe.1996.0043

Andersson, L. M., & Pearson, C. M. (1999). Tit for tat? The spiraling effect of incivility in the workplace. *Academy of Management Review*, *24*(3), 452–471. https://doi.org/10.5465/amr.1999.2202131

Aquino, K., Grover, S. L., Bradfield, M., & Allen, D. G. (1999). The effects of negative affectivity, hierarchical status, and self-determination on workplace victimization. *Academy of Management Journal*, *42*(3), 260–272. https://doi.org/10.5465/256918

Baillien, E., Escartín, J., Gross, C., & Zapf, D. (2017). Towards a conceptual and empirical differentiation between workplace bullying and interpersonal conflict. *European Journal of Work and Organizational Psychology*, *26*(6), 870–881. https://doi.org/10.1080/1359432X.2017.1385601

Barling, J. (1996). The prediction, experience, and consequences of workplace violence. In G. R. VandenBos, & E. Q. Bulatao (Eds.), *Violence on the job: Identifying risks and developing solutions* (pp. 29–49). American Psychological Association.

Beattie, L., & Griffin, B. (2014). Day-level fluctuations in stress and engagement in response to workplace incivility: A diary study. *Work & Stress*, *28*(2), 124–142. https://doi.org/10.1080/02678373.2014.898712

Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan organizational assessment questionnaire*. University of Michigan. Unpublished manuscript.

Cortina, L. M., Kabat-Farr, D., Magley, V. J., & Nelson, K. (2017). Researching rudeness: The past, present, and future of the science of incivility. *Journal of Occupational Health Psychology*, *22*(3), 299–313. https://doi.org/10.1037/ocp0000089

Cortina, L. M., Magley, V. J., Williams, J. H., & Langhout, R. D. (2001). Incivility in the workplace: Incidence and impact. *Journal of Occupational Health Psychology*, *6*(1), 64–80. https://doi.org/10.1037/1076-8998.6.1.64

Derogatis, L. R. (2003). *The brief symptom inventory 18*. Pearson Assessments.

Duffy, M. K., Ganster, D. C., & Pagon, M. (2002). Social undermining in the workplace. *Academy of Management Journal*, *45*(2), 331–351. https://doi.org/10.5465/3069350

Einarsen, S. (2000). Harassment and bullying at work: A review of the Scandinavian approach. *Aggression and Violent Behavior*, *5*(4), 379–401. https://doi.org/10.1016/S1359-1789(98)00043-3

Einarsen, S., Hoel, H., & Notelaers, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-Revised. *Work & Stress*, *23*(1), 24–44. https://doi.org/10.1080/02678370902815673

Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. L. (2011). The concept of bullying and harassment at work: The European tradition. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying*

and harassment in the workplace: Developments in theory, research, and practice (2nd ed., pp. 3–39). Taylor & Francis Group, LLC.

Einarsen, S., & Raknes, B. I. (1997). Harassment in the workplace and the victimization of men. *Violence and Victims*, *12*(3), 247–263. https://doi.org/10.1891/0886-6708.12.3.247

Elliott, P. P. (1997). Violence in healthcare: What nurse managers need to know. *Nursing Management*, *28*(12), 38–42. https://doi.org/10.1097/00006247-199712000-00012

Escartín, J., Salin, D., & Rodríguez-Carballeira, Á. (2011). Conceptualizations of workplace bullying. *Journal of Personnel Psychology*, *10*(4), 157–165. https://doi.org/10.1027/1866-5888/a000048

Gerberich, S. G., Church, T. R., McGovern, P. M., Hansen, H. E., Nachreiner, N. M., Geisser, A. D., Ryan, A. D., & Mongin, S. J. (2004). An epidemiological study of the magnitude and consequences of work related violence: The Minnesota nurses' study. *Occupational and Environmental Medicine*, *61*(6), 495–503. https://doi.org/10.1136/oem.2003.007294

Hershcovis, M. S. (2011). "Incivility, social undermining, bullying … Oh My!": A call to reconcile constructs within workplace aggression research. *Journal of Organizational Behavior*, *32*(3), 499–519. https://doi.org/10.1002/job.689

Hershcovis, M. S., & Reich, T. C. (2013). Integrating workplace aggression research: Relational, contextual, and method considerations. *Journal of Organizational Behavior*, *34*(S1), S26–S42. https://doi.org/10.1002/job.1886

Hewett, R., Liefooghe, A., Visockaite, G., & Roongrerngsuke, S. (2018). Bullying at work: Cognitive appraisal of negative acts, coping, wellbeing, and performance. *Journal of Occupational Health Psychology*, *23*(1), 71–84. https://doi.org/10.1037/ocp0000064

Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*, 1–55. https://doi.org/10.1080/10705519909540118

Keashly, L., Hunter, S., & Harvey, S. (1997). Abusive interaction and role state stressors: Relative impact on student residence assistant stress and work attitudes. *Work & Stress*, *11*(2), 175–185. https://doi.org/10.1080/02678379708256833

Keashly, L., & Jagatic, K. (2011). By any other name: American perspectives on workplace bullying. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Developments in theory, research, and practice* (2nd ed., pp. 41–74). Taylor & Francis Group, LLC.

Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). Guilford.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

Lee, I. A., & Preacher, K. J. (2013, September). *Calculation for the test of the difference between two dependent correlations with one variable in common* [Computer software]. http://quantpsy.org

Leiter, M. P., Day, A., Oore, D. G., & Spence Laschinger, H. K. (2012). Getting better and staying better: Assessing civility, incivility, distress, and job attitudes one year after a civility intervention. *Journal of Occupational Health Psychology*, *17*(4), 425–434. https://doi.org/10.1037/a0029540

Leymann, H. (1990). Mobbing and psychological terror at workplaces. *Violence and Victims*, *5*(2), 119–126. https://doi.org/10.1891/0886-6708.5.2.119

Lim, S., Cortina, L. M., & Magley, V. J. (2008). Personal and workgroup incivility: Impact on work and health outcomes. *Journal of Applied Psychology*, *93*(1), 95–107. https://doi.org/10.1037/0021-9010.93.1.95

Loeber, R., & Hay, D. (1997). Key issues in the development of aggression and violence from childhood to early adulthood. *Annual Review of Psychology*, *48*(1), 371–410. https://doi.org/10.1146/annurev.psych.48.1.371

Matthews, R. A., & Ritter, K. J. (2016). A concise, content valid, gender invariant measure of workplace incivility. *Journal of Occupational Health Psychology*, *21*(3), 352–365. https://doi.org/10.1037/ocp0000017

McCormack, D., Casimir, G., Djurkovic, N., & Yang, L. (2009). Workplace bullying and intention to leave among schoolteachers in China: The mediating effect of affective commitment. *Journal of Applied Social Psychology*, *39*(9), 2106–2127. https://doi.org/10.1111/j.1559-1816.2009.00518.x

Muthen, L. K., & Muthen, B. O. (2015). *Mplus user's guide* (7th ed.). Muthen & Muthen.
National Institute for Occupational Safety and Health. (2009). *National occupational research agenda (HCSA [NIOSH])*.
Neuman, J. H., & Baron, R. A. (2005). Aggression in the workplace: A social-psychological perspective. In S. Fox & P. E. Spector (Eds.), *Counterproductive workplace behavior: An integration of both actor and recipient perspectives on causes and consequences* (pp. 13–40). American Psychological Association.
Nielsen, M. B., & Einarsen, S. (2012). Outcomes of exposure to workplace bullying: A meta-analytic review. *Work & Stress*, *26*(4), 309–332. https://doi.org/10.1080/02678373.2012.734709
Nielsen, M., Hoel, H., Zapf, D., & Einarsen, S. (2015). Exposure to aggression in the workplace. In S. Clarke, T. M. Probst, F. Guldenmund, & J. Passmore (Eds.), *The Wiley blackwell handbook of the psychology of occupational safety and workplace health* (pp. 205–227). John Wiley & Sons, Ltd.
Nielsen, M. B., Matthiesen, S. B., & Einarsen, S. (2010). The impact of methodological moderators on prevalence rates of workplace bullying. A meta-analysis. *Journal of Occupational and Organizational Psychology*, *83*(4), 955–979. https://doi.org/10.1348/096317909X481256
Nixon, A. E. (2012). Charting a semantic jungle: Novel method for examining workplace aggression. Poster presented at the annual meeting of the Society of Industrial and Organizational Psychology, San Diego, CA.
Nixon, A. E., Mazzola, J. J., Bauer, J., Krueger, J. R., & Spector, P. E. (2011). Can work make you sick?: A meta-analysis of the relationships between job stressors and physical symptoms. *Work & Stress*, *25*(1), 1–22. https://doi.org/10.1080/02678373.2011.569175
Nixon, A. E., & Spector, P. E. (2015). Seeking clarity in a linguistic fog: Moderators of the workplace aggression-strain relationship? *Human Performance*, *28*(2), 137–164. https://doi.org/10.1080/08959285.2015.1006325
Notelaers, G., & Einarsen, S. (2013). The world turns at 33 and 45: Defining simple cutoff scores for the Negative Acts Questionnaire–Revised in a representative sample. *European Journal of Work and Organizational Psychology*, *22*(6), 670–682. https://doi.org/10.1080/1359432X.2012.690558
Notelaers, G., Einarsen, S., De Witte, H., & Vermunt, J. K. (2006). Measuring exposure to bullying at work: The validity and advantages of the latent class cluster approach. *Work & Stress*, *20*(4), 289–302. https://doi.org/10.1080/02678370601071594
Notelaers, G., Van der Heijden, B., Guenter, H., Nielsen, M. B., & Einarsen, S. V. (2018). Do interpersonal conflict, aggression and bullying at the workplace overlap? A latent class modeling approach. *Frontiers in Psychology*, *9*, 1743. https://doi.org/10.3389/fpsyg.2018.01743
Notelaers, G., Van der Heijden, B., Hoel, H., & Einarsen, S. (2019). Measuring bullying at work with the short-negative acts questionnaire: Identification of targets and criterion validity. *Work & Stress*, *33*(1), 58–75. https://doi.org/10.1080/02678373.2018.1457736
Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling: A Multidisciplinary Journal*, *14*(4), 535–569. https://doi.org/10.1080/10705510701575396
Pearson, C. M., Andersson, L. M., & Wegner, J. W. (2001). When workers flout convention: A study of workplace incivility. *Human Relations*, *54*(11), 1387–1419. https://doi.org/10.1177/00187267015411001
Porath, C. L., & Pearson, C. M. (2010). The cost of bad behavior. *Organizational Dynamics*, *39*(1), 64–71. https://doi.org/10.1016/j.orgdyn.2009.10.006
Ramsay, J., Denny, F., Szirotnyak, K., Thomas, J., Corneliuson, E., & Paxton, K. (2006). Identifying nursing hazards in the emergency department: A new approach to nursing job hazard analysis. *Journal of Safety Research*, *37*(1), 63–74. https://doi.org/10.1016/j.jsr.2005.10.018
Raver, J. L. (2008). The dark side of employees' behavior: Evaluating our questions, answers, and future directions. Professional Development Workshop conducted at the Academy of Management Conference, Anaheim, CA.
Raver, J. L., & Barling, J. (2008). Workplace aggression and conflict: Constructs, commonalities, and challenges for future inquiry. In C. K. W. De Dreu & M. J. Gelfand (Eds.), *The Psychology of conflict and conflict management in organizations* (pp. 211–244). Lawrence Erlbaum Associates.

Rayner, C. (1997). The incidence of workplace bullying. *Journal of Community & Applied Social Psychology*, *7*(3), 199–208. https://doi.org/10.1002/(SICI)1099-1298(199706)7:3<199::AID-CASP418>3.0.CO;2-H

Rosander, M., & Blomberg, S. (2019). Levels of workplace bullying and escalation–a new conceptual model based on cut-off scores, frequency and self-labelled victimization. *European Journal of Work and Organizational Psychology*, *28*(6), 769–783. https://doi.org/10.1080/1359432X.2019.1642874

Sakurai, K., & Jex, S. M. (2012). Coworker incivility and incivility targets' work effort and counterproductive work behaviors: The moderating role of supervisor social support. *Journal of Occupational Health Psychology*, *17*(2), 150–161. https://doi.org/10.1037/a0027350

Salin, D. (2001). Prevalence and forms of bullying among business professionals: A comparison of two different strategies for measuring bullying. *European Journal of Work and Organizational Psychology*, *10*(4), 425–441. https://doi.org/10.1080/13594320143000771

Salin, D. (2003). The significance of gender in the prevalence, forms and perceptions of bullying. *Nordiske Organisasjonsstudier*, *5*(3), 30–50.

Salin, D., & Notelaers, G. (2017). The effect of exposure to bullying on turnover intentions: The role of perceived psychological contract violation and benevolent behaviour. *Work & Stress*, *31*(4), 355–374. https://doi.org/10.1080/02678373.2017.1330780

Salin, D., Cowan, R., Adewumi, O., Apospori, E., Bochantin, J., D'Cruz, P., Djurkovic, N., Durniat, K., Escartin, J., Guo, J., Isik, I., Koeszegi, S. T., McCormack, D., Monserrat, S. I., & Zedlacher, E. (2019). Workplace bullying across the globe: A cross-cultural comparison. *Personnel Review*, *48*(1), 204–219. https://doi.org/10.1108/PR-03-2017-0092

Saunders, P., Huynh, A., & Goodman-Delahunty, J. (2007). Defining workplace bullying behaviour professional lay definitions of workplace bullying. *International Journal of Law and Psychiatry*, *30*(4–5), 340–354. https://doi.org/10.1016/j.ijlp.2007.06.007

Schaubroeck, J. (1999). Should the subjective be the objective? On studying mental processes, coping behavior, and actual exposures in organizational stress research. *Journal of Organizational Behavior*, *20*(5), 753–760. https://doi.org/10.1002/(SICI)1099-1379(199909)20:5<753::AID-JOB950>3.0.CO;2-W

Schilpzand, P., De Pater, I. E., & Erez, A. (2016). Workplace incivility: A review of the literature and agenda for future research. *Journal of Organizational Behavior*, *37*, S57–S88. https://doi.org/10.1002/job.1976

Schwartz, J. E., & Stone, A. A. (1993). Coping with daily work problems. Contributions of problem content, appraisals, and person factors. *Work and Stress*, *7*(1), 47–62. https://doi.org/10.1080/02678379308257049

Sliter, M., Sliter, K., & Jex, S. (2012). The employee as a punching bag: The effect of multiple sources of incivility on employee withdrawal behavior and sales performance. *Journal of Organizational Behavior*, *33*(1), 121–139. https://doi.org/10.1002/job.767

Spector, P. E. (1999). Objective versus subjective approaches to the study of job stress. *Journal of Organizational Behavior*, *20*(5), 737. doi:10.1002/(SICI)1099-1379(199909)20:5<737::AID-JOB949>3.0.CO;2-X

Spector, P. E., Dwyer, D. J., & Jex, S. M. (1988). Relation of job stressors to affective, health, and performance outcomes: A comparison of multiple data sources. *Journal of Applied Psychology*, *73*(1), 11–19. https://doi.org/10.1037/0021-9010.73.1.11

Spector, P. E., & Fox, S. (2005). A model of counterproductive work behavior. In S. Fox & P. E. Spector (Eds.), *Counterproductive workplace behavior: Investigations of actors and targets* (pp. 151–174). APA.

Sprigg, C. A., Niven, K., Dawson, J., Farley, S., & Armitage, C. J. (2019). Witnessing workplace bullying and employee well-being: A two-wave field study. *Journal of Occupational Health Psychology*, *24*(2), 286–296. https://doi.org/10.1037/ocp0000137

Teclaw, R., Price, M. C., & Osatuke, K. (2012). Demographic question placement: Effect on item response rates and means of a Veterans Health Administration survey. *Journal of Business and Psychology*, *27*(3), 281–290. https://doi.org/10.1007/s10869-011-9249-y

Tepper, B. J., & Henle, C. A. (2011). A case for recognizing distinctions among constructs that capture interpersonal mistreatment in work organizations. *Journal of Organizational Behavior*, *32*, 487–498. https://doi.org/10.1002/job.688

Vie, T. L., Glasø, L., & Einarsen, S. (2011). Health outcomes and self-labeling as a victim of workplace bullying. *Journal of Psychosomatic Research*, *70*(1), 37–43. https://doi.org/10.1016/j.jpsychores.2010.06.007

Wilson, N. L., & Holmvall, C. M. (2013). The development and validation of the incivility from customers scale. *Journal of Occupational Health Psychology*, *18*(3), 310–326. https://doi.org/10.1037/a0032753

Zapf, D., Escartín, J., Einarsen, S., Hoel, H., & Vartia, M. (2011). Empirical findings on prevalence and risk groups of bullying in the workplace. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace. Developments in theory, research and practice* (pp. 75–105). Taylor & Francis Group.

Zapf, D., & Gross, C. (2001). Conflict escalation and coping with workplace bullying: A replication and extension. *European Journal of Work and Organizational Psychology*, *10*(4), 497–522. https://doi.org/10.1080/13594320143000834

Zhou, Z. E., Yan, Y., Che, X. X., & Meier, L. L. (2015). Effect of workplace incivility on end-of-work negative affect: Examining individual and organizational moderators in a daily diary study. *Journal of Occupational Health Psychology*, *20*(1), 117–130. https://doi.org/10.1037/a0038167