

**YOU'VE GOT MAIL: THE EFFECT OF INCIVIL EMAIL ON RECIPIENTS'
PSYCHOLOGICAL WELLBEING AND WORKPLACE BEHAVIOURS.**

by

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ABSTRACT

The present research is an investigation of the effects of incivil email on levels of psychological distress and counterproductive workplace behaviours within a workplace setting. Based on Andersson and Pearson's (1999) definition of general incivility, incivil email is defined as an email which implies rudeness, disrespect, and disregard for the recipient in a manner that is contrary to socially acceptable norms for communication. An incivil email also lacks any clear aggressiveness, making its interpretation confusing, ambiguous, and questionable from the recipient's perspective, leaving the recipient questioning the intent of the email (Delano Parker & Spinner, 2010). Currently, research suggests email incivility has similar outcomes as incivil behaviours, such as elevated stress and negative work behaviours. Ambiguity, within incivil email, is also suggested to have similar effects. However, no empirical research utilising an experimental paradigm, within the workplace, has ever been utilised to determine whether the same stress related outcomes occur. The present study addresses this gap. Participants were recruited from members of the Canadian Electricity Association, various engineering firms as well as the City of Fredericton and the City of Saint John N.B. ($n = 363$). Consistent with previous findings, present results indicated that recipients of incivil email subsequently reported higher levels of psychological distress. Individuals who experienced ambiguity within an incivil email reported greater levels of psychological distress than those not perceiving ambiguity within their email. Support was not found for higher levels of counterproductive work behaviour, as measured by the CWB-C.

Mediation analysis also determined that ambiguity positively mediated the relationship between incivil email and psychological distress. Subsequently, an incivil email stress model framed within the transactional model of stress (Lazarus & Folkman, 1984) was developed. Participants also were asked to comment on their experience with incivility. A thematic analysis of the responses added an experiential richness to the interpretation of the study's results. Overall, results shed light on the potential direct role of incivil email on stress and anxiety conditions, and indirectly on workplace absenteeism and overall safety.

DEDICATION

This dissertation is dedicated to Isabel MacKnight Delano, a woman who was both mother and father to me. Her strength and dignity made all things possible.

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You've Got Mail: The Effect of Incivil Email on Recipients' Psychological Wellbeing
and Workplace Behaviours

CHAPTER I: INTRODUCTION

Email is a common type of workplace communication. The Radicati Group, Inc. (2011) reported that approximately 89 billion emails are sent in the corporate world every day. North America accounts for 14% or 12 billion of those emails. As a workplace tool, email is a major benefit to companies, helping boost their communication capabilities, and reducing associated costs and time delays (Barley, Meyerson, & Grodal, 2011; Giumetti, McKibben, Hatfield, Schroeder, & Kowalski, 2012; Hair, Renaud, & Ramsay, 2007; Lim & Teo, 2009). An emerging body of research has established that email is also a source of workplace stress, with its causal factors and effects just beginning to be understood (Dabbish & Kraut, 2006; Ramsay & Renaud, 2012; Taylor, Fieldman, & Altman, 2008). These effects are similar to those associated with the stress of incivil workplace behaviours (Lim & Teo, 2009).

Incivil workplace behaviours, or workplace incivility, is a prevalent style of deviant workplace behaviour and includes characteristics such as workplace norm violation, ambiguous intent to harm, and low intensity behaviours (Andersson & Pearson, 1999; Pearson, Andersson, & Wegner, 2001). Key researchers of workplace incivility have linked it to increasing rates of psychological distress, negative or counterproductive work behaviour and job stress (Lim & Cortina, 2005; Lim, Cortina, & Magley, 2008; Pearson, Andersson, & Porath, 2000).

With email acknowledged as a predominant communication tool within the workplace (Radicati Group, Inc., 2011), the opportunity exists for incivility to occur

within an email environment (Hershcovis, 2011; Lim, Teo, & Chin, 2008; Taylor et al., 2008). Additionally, given the daily volume of email received by employees (Radicati Group, Inc., 2011), there is the potential for adverse email effects to be greater than the effects of in-person incivil communications (Byron, 2008). If incivil emails have the same effects as other incivil behaviours, they could result in job stress, negative or counterproductive work behaviour, and psychological distress. Therefore, it is proposed that incivil email is a contributing factor to workplace stress, anxiety, and counterproductive work behaviours.

Current State of Incivil Email Research

Theoretical statements regarding the potential effects of incivil emails (Hershcovis, 2011) make it tempting to draw parallels between incivility outcomes in general and similar outcomes for email incivility within a workplace setting. However, empirical evidence to support this possibility could not be found, as research on incivil email, psychological distress, and counterproductive work behaviour in the workplace has been predominantly theoretical and univariate (Giumetti et al., 2012; Hershcovis, 2011; Taylor et al., 2008). Giumetti et al. (2013), however, identified the impact of incivil email from supervisors in a support role on university students' negative affect levels. In addition, Hershcovis (2011) and Taylor et al. (2008) established theoretical recommendations for the examination of workplace effects of incivil behaviours and email use.

Other than the four studies mentioned above, little is known empirically about the effects of incivil email. Expanding this research to empirically examine the effects of email incivility specifically on employees receiving these emails in their workplace

seems particularly timely. It would be pertinent, for instance, to gain a better understanding on the effects incivil email has on the levels of positive and negative affects, and counterproductive work behaviour. Such research could also shed light on the effects of incivil email on recipients' perceived levels of stress, anxiety, and counterproductive work behaviour. Additionally, such research can also increase knowledge related to organizational stress and potentially inform workplace policies related to email use. The present research, therefore, specifically begins to fill the gap in this area and represents a timely contribution to workplace research as a whole.

Incivil Behaviours and the Stress Model

Researchers investigating the effects of incivil behaviours on recipients' levels of stress have determined that these behaviours are subject to an emotional appraisal by the recipient (Cortina & Magley, 2009; Porath & Pearson, 2012). Additionally, counterproductive work behaviours as a stress response to workplace incivility has been identified (Hershcovis, 2011; Penney & Spector, 2005; Porath & Pearson, 2012; Reio, 2011). Therefore, the present study also examines counterproductive work behaviour as a response to an incivil email environment.

Framed within the model of transactional stress theory (Lazarus, 1966; Lazarus & Folkman, 1984), this study also represents an empirical investigation of the relationship incivil email has to recipients' level of anxiety, stress, and counterproductive work behaviours. Results from this research bridges the gap between current theoretical interpretations of incivil email and its effects, and enables the development of a model of the effects of incivil email on stress, anxiety, and counterproductive work behaviour outcomes. Distinguishing email incivility from other

forms of workplace incivility could be crucial for future researchers and employers in order to understand if these workplace behaviours are separate influencing agents of employee behaviours.

In the sections that follow, I define incivil email framed within the general context of incivil behaviour, as originally defined by Andersson and Pearson (1999). I then identify how email incivility differs from other forms of incivility in the workplace. A brief explanation of the prevalence and effects of workplace incivility provides the segue to a review of current literature on workplace email environments and email research, thus establishing the foundation for this study of incivil email in the workplace.

The transactional theory of stress is used for defining and examining the relationships between the research constructs and underlies the hypotheses of this study. A model of effects of email incivility is presented as a framework for the relationship incivil email has with anxiety, stress and counterproductive work behaviours. Additionally, the mediator effect of ambiguity is examined in the context of the model and its relation to the definition of incivil email.

Workplace Incivility

Incivility defined. The seminal definition of incivility by Andersson and Pearson (1999) refers to workplace behaviours that violate social norms for mutual respect. These behaviours, such as rudeness and exclusion, are often ambiguous in nature as well as insidious in their accumulated effect. Porath and Pearson (2009) further describe incivility to be words and actions that appear trivial but in reality, are not in keeping with conventional workplace norms for behaviours, verbal, or otherwise. Often

interpreted as rudeness or sarcasm (Porath & Pearson, 2009), incivility is also a manner of communicating, which at times is deliberately ambiguous, demeaning, and condescending.

There is an extensive list of researchers who have defined incivility to be much more than “bad manners” (Aujla & Hausdorf, 2011; Cortina, Magley, Williams, & Langhout, 2001; Holmvall & Francis, 2007; Johnson & Indvik, 2001; Lim, Cortina, & Magley, 2008; Pearson et al., 2000; Pearson et al., 2001; Pearson & Porath, 2004; Porath & Pearson, 2010). These researchers have determined that incivility is a negative component of the workplace and often results in major financial expenses for the employer and psychological cost for the recipient (e.g., onset of anxiety, stress, and related illnesses). Cortina (2008) has further identified incivility as being one of the most pervasive types of workplace antisocial behaviours.

Incivility does not represent a general communication misunderstanding between co-workers; it is a distinct workplace deviant behaviour (Hershcovis, 2011). Using meta-analysis methodology, Hershcovis identified and differentiated between five workplace mistreatments: abusive supervision, bullying, incivility, social undermining, and interpersonal conflict. The characteristics distinguishing incivility from other workplace mistreatments are ambiguity related to the perception of the intent of the behaviour and the low intensity of the behaviour itself. As ambiguity is an important defining characteristic of incivility, a brief discussion of the effects of ambiguity and intensity in the overall perception of an incivil experience follows.

Ambiguity as a characteristic of incivility. Ambiguity, as a characteristic of incivility, relates to one’s perception of the intent of the behaviour and its meaning. In a

review of the incivility literature, Estes and Wang (2008) concluded that the existence of ambiguity, a characteristic of incivil behaviour, in the message or behaviour creates psychological stress. The message or behaviour may have been rude unknowingly, and not intended to be incivil, but its ambiguous nature did not provide a clarification of the intent or meaning for the recipient (Chen & Craske, 1998; Wang, Chen, Herath, & Rao, 2009).

Ambiguity and intent. Ambiguity influences email recipients' perception of the intent of the message or behaviour, creating mental confusion and uncertainty.

Ambiguous messages make it easy for a perpetrator of incivility to have their actions or words excused based on a suggestion of misunderstanding (Estes & Wang, 2008). When asked for clarification, individuals accused of being incivil have deferred to their words being misinterpreted by the recipient (Andersson & Pearson, 1999; Cortina & Magley, 2009). They may additionally state they really did not mean any harm, thus subtly reinforcing the ambiguity of the intent and placing responsibility for the outcome (interpreted by the sender as a misperception) on the recipient. Andersson and Pearson (1999) established that this lack of awareness of the incivility of the message by the originator was a key characteristic of an incivil message.

The ambiguous nature of incivil behaviours in a workplace makes incivility difficult to report to individuals in control or in positions of power. Its subtleness and vagueness, such as “unintentionally” excluding a team member from an important meeting, or “forgetting” to copy someone on an important email message, makes incivility hard to identify, describe, or prove (Estes & Wang, 2008). Management may not believe it is occurring, and often resort to explaining the situation as a result of

personality differences. Andersson and Pearson's (1999) description of how perpetrators at times may not intend to be incivil, or even realize their actions are interpreted as incivil, adds to the complexity of a clear definition and subsequent recognition of incivil behaviour. This misperception of intent by the recipient can act as an ambient stimulus; a subtle, constant thought which creates general confusion, and a perpetuating, pervasive sense of questioning the "real" meaning of messages. The following section expands on the concepts of intentionality and intensity, which are key characteristics of an incivil behaviour (Andersson & Pearson, 1999).

Intentionality and intensity. An incivil message can be intentional or non-intentional. Intentional incivility is deliberate and includes selective incivility, which. Porath and Erez (2007) describe as being a mask or subterfuge for discriminatory behaviours. This discrimination, for example, can be in the form of racial or gender bias, thus targeting specific individuals in the workplace. Cortina (2008) refers to selective incivility as a particular type of intentional incivility.

Non-intentional incivility occurs when the sender genuinely does not intend the message to be incivil. It can be a case of bad interpersonal communication manners or rudeness (Estes & Wang, 2008; Porath & Erez, 2007). The recipient perceives non-intentional incivility as incivil, nonetheless, especially if it also contains a level of ambiguity.

The ambiguous and covert nature of incivility influences its perception as being low in intensity (Cortina & Magley, 2009; Cortina et al., 2001), as compared to harassment or bullying. Harassment consists of obvious, unwanted negative behaviours, between two or more individuals (Claybourn, Spinner, & Malcolm, 2014; Ghosh,

Jacobs, & Reio, 2011). Bullying is an intense form of harassment, aggressive in nature, often physical, ongoing, and repetitive (Bartlett & Bartlett, 2011). With regards to harassment and bullying, the intent is obvious and the intensity of the behaviour is usually deliberately aggressive, and even violent.

Incivility is not as obvious in its intent as harassment, as explained by its identifying characteristics of ambiguity and low intensity. It is a covert behaviour while harassment is always overt (Johnson & Indvik, 2001). The subtle nature of incivil behaviours has its occurrence often questioned and commonly not reported. This characteristic in itself makes incivility hard to identify, and consequently, difficult to measure (Cortina & Magley, 2009; Porath & Pearson, 2010).

The confusion and lack of clarity created by the ambiguity and lack of clear intent of an incivil behaviour led Cortina et al. (2001) to determine incivility further distinguishes itself from other types of deviant workplace behaviours because it is a type of psychological mistreatment. Although not a focus of the current research, one can expand on this finding by recognizing that, in many ways, incivil behaviour has similarities to a passive aggressive personality.

In summary, ambiguity, as related to the actual occurrence, intent, or inference of incivility within a message, uniquely identifies incivil behaviour as a distinct concept. The target of the incivil behaviour wonders if the underlying tone, message, or negative intent of the incivil behaviour really exists, or if it is imaginary or misinterpreted. Such questioning by the recipient of the incivilities may, in some circumstances, lead to ruminating on what the intent of the message actually is. Ruminating, or having persistent negative thoughts about a situation, has been linked to the development of

lowered immune functioning (Thomsen et al., 2004), which is also a stress effect (Taylor & Sirois, 2012).

The following section identifies what incivil behaviours are within a workplace. This behaviour identification provides the segue for incivil email, which is placed within the context of incivil workplace behaviours.

Incivil Behaviours

Incivil behaviours, also referred to as uncivil, include those which are covert, ambiguous, low in intensity, and which violate the societal norms for behaviours. Incivil behaviours have been found in research using self-report measures and observational studies and include rudeness, exclusion, consistent misapplication of company policies, favouritism, lack of respect, and abuse of social norms regarding employee and/or manager interactions (Andersson & Pearson, 1999; Cortina et al., 2001; Giacalone & Greenburg, 1997; Pearson & Porath, 2004). Further examples of incivil behaviours include taking credit for others' work, checking email or using a cell phone during meetings, disregarding the presence or contribution of others, making demeaning comments to someone, and/or withholding information (Johnson & Indvik, 2001; Porath & Pearson, 2010). The common elements of these behaviours are as follows: they are deviant, ambiguous in intent, low in intensity, and in violation of social norms regarding communication and behaviour. The following section presents the prevalence of these incivil behaviours within the workplace.

Prevalence of Incivility

Cortina and Magley (2009) established through self-report measures that between only one and six percent of employees report occurrences of incivility.

However, Porath and Pearson (2009) suggest that it occurs more often than employers and employees report. Using a survey based study, Porath and Pearson (2009) determined that in a U.S. national sample, 96% of employees reported having experienced a form of incivility, and 99% have witnessed it. As managers often have been found to be the instigators of incivility, employees reported that they deliberately concealed their responses to incivil interactions out of fear of work related consequences. This finding has been prevalent in the incivility literature (Cortina et al., 2001; Giumetti et al., 2012; Johnson & Indvik, 2001; Pearson et al., 2000; Porath & Pearson, 2009; Reio, 2011; Reio & Ghosh, 2009).

Employees have been found to underreport instances of workplace incivil behaviours (Johnson & Indvik, 2001) or to attempt to tolerate it. Porath and Pearson (2009) nonetheless identified an increase in reported incivil behaviour from 25% to 50% over a seven-year period in companies they studied. Johnson and Indvik (2001), in a literature review of incivility and rudeness in the workplace, reported a U.S. News and World Report survey where 89% of the respondents agreed that incivility was a serious problem; and of those, 99% believed that they themselves had never been incivil. Yeung and Griffin (2008), from looking at prevalence of incivility within Asian workplaces, contended that 77% of participants reported being a victim of incivil behaviour. Based on these findings, inappropriate behaviour in the workplace may be a global issue.

From an educational perspective, higher levels of education do not necessarily translate into lower levels of incivil behaviour (Ferris, 2002). Higher rates of incivility are recognized as occurring among occupational groups having higher levels of education, such as academics, professors, and lawyers. Individuals in the customer

service industries, or those typically having lower educational levels had fewer reported instances of incivility in comparison (Ferris, 2002). A possible explanation for this occurrence could be related to lower levels of leadership or management training for academic and legal positions than for managers in customer service industries. Such training encourages a customer-focused approach to business where politeness could mean increased sales and profits. From an organizational human resource perspective, regardless of the environment in which incivil behaviours occur, it is imperative to understand how to manage the organizational outcomes influenced by an incivil work environment.

The following section presents the framework for incivil email as a separate construct from incivil behaviours.

Incivil Email in the Workplace

Incivil email definition. Framed within Andersson and Pearson's (1999) incivil behaviour definition, incivil email is defined (Delano Parker & Spinner, 2010) as an email that implies rudeness, disrespect, and disregard for the recipient in a manner that is contrary to socially acceptable norms for communication. An incivil email also lacks any clear aggressiveness, which may make its interpretation confusing, ambiguous, and questionable from the recipient's perspective. This often leaves the recipient questioning the intent of the email. To further the understanding of an email environment, the next section offers definitions of terms specific to electronic communications within today's workplace.

Terminology. Email has a primary purpose of providing efficient, cost effective, timely communications enabling employees and work groups to interact on many

different levels and from varied workplace environments. Researchers, such as Vignovic and Thompson (2010), refer to this communication as cross-cultural computer-mediated interactions. The following clarifies common terms found within the email literature.

Information and Communication Technologies and *Computer Mediated Communication* are two key terms referring to computerized information technologies. These include both text and email messages on mobile and stationary devices. Both terms have been used by researchers to examine effects of technology on factors such as employee stress levels, supervisor incivility, dispute escalations, and counterproductive work behaviours (Barley et al., 2011; Derks & Bakker, 2010; Giumetti et al., 2012; Sewell, 2003; Skovholt & Svennevig, 2006).

Incivil email is different from cyberbullying. Cyber incivility refers to incivil behaviours occurring within the information and communication technology and/or computer mediated communication environment, but not restricted to email (Giumetti et al., 2012). Like bullying behaviour, cyberbullying is clear in its intent. It is an indirect action such as posting derogatory messages to an electronic communication medium (e.g., a social media site), or a direct electronic message or email to the victim, often repeated over time. Cyberbullying has an overt intention to cause harm (Baruch, 2004; Dooley, Pyzalski, & Cross, 2009; Langos, 2012). This action falls within the counterproductive work behaviour definition. Employees who are victims of email bullying, called flame mail, suffer from reactions ranging from poor performance to reduced productivity and low morale. Some are pushed to resign from their job or bring lawsuits against the company as a way of addressing the bullying (Kelloway, Catano, &

Day, 2011). Costs range from feeling psychologically harassed through to financial losses due to employee job withdrawal. These monetary losses can be in the millions.

Flaming, another term used to describe negative electronic communication, is also distinct from incivil email. It refers to a person responding in the heat of the moment to an email, or similar type electronic communication, with the immediacy of the response being its distinguishing characteristic (McKenna & Bargh, 2000). Flaming also has a deliberate intent to harm. The immediate, deliberate intent to harm is the distinguishing characteristic between flaming and incivil email.

The following section discusses the current research on the effects of email. These effects are presented in subsections investigating the email environment, characteristics of the email environment, and how these characteristics affect the email recipient.

Current Research on Effects of Email

The challenge in establishing a background for the study of effects of incivil email on an individual's level of stress, anxiety, and counterproductive work behaviour lies in the dearth of available research on this topic. Currently, research exists on the uniqueness of the electronic email environment and its effects on the communication process, on the structural characteristics of email and its effects, and on the levels of authority of senders of email and its effects on recipients of email. Thus far, no research has examined the effects of incivil email on employee levels of stress, anxiety, and counterproductive work behaviour in a workplace setting.

Agreement on what incivil email consists of is a significant challenge, as researchers oftentimes are inconsistent in the terminology they use to identify what

determines an incivil email. For example, Horowitz (2009) conducted survey-based research on educators' reactions to what he termed "uncomfortable emails". Teachers participating in the study defined the word "uncomfortable" by applying synonyms to the word and then described if they had ever received such emails. Horowitz identified that teachers working in affluent middle schools reported receiving more uncomfortable emails, particularly those sent from parents, than teachers working in less affluent schools and different grade levels. Emails from parents caused the most concern. The researcher focused the discussion of this research on the need to develop policies to help educators understand how to deal with emails they consider uncomfortable. Yet, it did not empirically address how the uncomfortable *type* of email itself influenced the recipients' responses.

The email environment. Within the workplace, and between home and workplace, email is now a primary communication medium (Taylor et al., 2008). It has replaced paper based or traditional mail, (now commonly referred to as snail mail), phone conversations, and face-to-face communication due to its "within reach" convenience as a computer or cellular phone feature. Communication with other individuals and with groups is now easy, fast, convenient, and faceless.

An ancillary benefit of the virtual communication protocol is that email offers individuals who are socially shy or lacking self-confidence in face-to-face communications settings (e.g., a business meeting) options for expanding their communication repertoire (Borsheim, 2004; Hertel, Schroer, Batinic, & Naumann, 2008; Pierce, 2009). Lacking the requirement to be face-to-face or voice-to-voice to provide or request information enables individuals to be disinhibited from a communication

perspective. In a study designed to enhance high school English students' understanding of racism, Borsheim (2004) partnered younger students with college level students via email. From discussion with the high school students, Borsheim found the anonymity of the email environment enabled the younger students to be more open with their line of questioning to the older students, thus enhancing their level of understanding and depth of dialogue of racism.

Email communication characteristics. Email, like communication in general, includes structural and contextual cues that provide the recipient with information regarding the subject of the message and expectations surrounding it. These cues can have both positive and negative influences on the message interpretation (Derks & Bakker, 2010; Mano & Mesch, 2010; McKenna & Bargh, 2000; Ramsay & Renaud, 2012; Renaud, Ramsay, & Hair; 2006).

Structural cues.

Speed of communication process. Being able to send and receive messages instantly enables work to be quickly completed, freeing up time for other work-related tasks. The speed of electronically communicating information compared to traditional paper based mail means companies also save physical transportation costs. Additionally, the reduction in the number of individuals needed for the delivery process from sending to receiving the 'mail' translates into more savings.

A quick transmission time, however, does not always afford the sender a moment to pause and perhaps reflect on the message before sending it away and having it subsequently received. The speed of transmission may influence the content of this instant, sometimes impulsive response. If misinterpreted, the emails may lead to what

Andersson and Pearson (1999) originally described as a spiralling increase in incivil messaging, perhaps even escalating to rude and offensive behaviour.

Speed of transmission brings with it the opportunity for more email. The extra email creates the need to manage this flow, resulting in a variety of extra work tasks. Some companies have recognized this extra workload and have formally introduced no email times or quiet time where employees are restricted from using email in an attempt to bring the volumes under control (Staudenmayer, Tyre, & Perlow, 2002). The Information Overload Research Group (2008), Microsoft, Google, IBM and Intel, has collaborated to encourage the development of email management processes.

Distance. From a business perspective, it is commonly known that time is money, and money that is either saved or earned, can be attributed to the ability of email to transcend distance. Within seconds, an email with a multi-document attachment can be sent around the globe. These attachments are quickly opened, then reviewed, printed, signed and scanned back into a return email document to any destination, usually within the same business day.

From a negative point of view, the use of email to instantly negate the constraint of distance also removes the need for face-to-face contact, particularly within an office environment. In an office, face-to-face communication may well serve as an important relationship building exercise, or provide critical contextual communication cues required to understand the email message. Email can remove the need to ever meet face-to-face (O’Kane & Hargie, 2007), which is a concept many companies encourage when promoting virtual offices and work teams (Hill, Ferris, & Mårtinson, 2003) to employees they want to retain or recruit.

Time (of day). Email has the ability to be always on, irrespective of the time of day it is, and not relying on international time zones, making it the perfect communication tool for time zone crossing, with equal speed in transmission time. Companies can disregard delivery times traditional mail relies on in order to expedite business communications between various countries and continents.

Unfortunately, this disregard for delivery time of email acts as a stressor for some individuals (Renaud, 2007). A message received in the early hours of the morning or outside normal working hours has more significance than messages received during normal working hours, sending the perception that it is a critical message, thus needing an instant reply. Additionally, messages received from virtual work teams outside of each team's daytime working hours is perceived as pressure to work night time hours to maintain communication continuity (Barley et al., 2011; Francis, Holmval, & O'Brien, 2015).

Contextual cues. In an email environment, because it is electronic and artificial, the person-environment interaction is unnatural. There also can be an absence of context related to the message (Taylor et al., 2008). If one applies an interaction model framework (Andersson & Pearson, 1999; Leiter, Laschinger, Day, & Oore, 2011; Sayers, Sears, Kelly, & Harbke, 2011), the person – environment interaction is essential for understanding contextual information.

The key elements that are required to contextualize a communication are referred to as *paralinguistic cues*. Paralinguistic cues are the extra or ancillary cues that accompany the communication of a message. One's gestures or body language, tone of voice, inflection, cadence, or even deliberately unspoken words are paralinguistic cues,

which aid in the interpretation of the message (Ramirez, Walther, Burgoon, & Sunnafrank, 2002; Walther, Anderson, & Park, 1994). Whereas these cues are often required in order to contextualize a message or provide ancillary information to the recipient about the perspective of the message or sender, these cues are missing in an email message. The predominantly text-based message of an email states the requisite information; not how the information is to be interpreted (Ramsay & Renaud, 2012). For many, this information is ambiguous in its meaning without the accompanying tone of voice or word cadence (Kruger, Epley, Parker, & Ng, 2005).

In many email exchanges, there is a lack of a previous message (conversation) in order to frame the information, and misinterpretation can easily occur. Kruger et al. (2005) found that email senders overestimated how correctly interpreted their messages were, supporting their research position that email messages will consistently be subject to misinterpretation due to the absence of contextual cues.

The use of emoticons (e.g., graphic symbols such as a happy face: ☺) was examined in the context of assisting recipients to interpret or contextualize part of an email as light hearted or sarcastic. Kruger et al. (2005) found that the emoticons were part of a miscommunication of message, mainly due to an inconsistent understanding of the various emoticon meanings. Therefore, they did not add to the contextualizing of the email message.

Further understanding of email contextual characteristics requires a brief explanation of its perception as a communication medium. The following provides a research perspective on how email is viewed using a communication richness context (O’Kane & Hargie, 2007).

Communication richness. Because of the lack of contextual cues, email is on the medium to low end of the communication richness continuum. Communication richness includes not only the speed, quality of verbal information, and the availability of feedback, it also provides a social presence emerging from communication cues (O’Kane & Hargie, 2007). This lack of information depth, which is common to email, often leaves the recipient guessing with regards to the subject of the message or response requirements (Kruger et al., 2005; Vignovic & Thompson, 2010).

This research is not unequivocal, however, as Huang (2002) reports email as being poor in communication richness while Markus (1994) reports that email enhances the richness of communications within organizations. Markus’s research relates the enhanced communication interaction to the speed of email as opposed to the often slow, paper based communications or mail. This was suggested to translate into increased work productivity. It is not clear, however, if Markus qualifies speed of interaction as communication richness; it may be that the lack of richness requires the users to engage in quick messaging in order to gain an understanding of what the message is saying.

Crystal (2001) takes a different approach and suggests that email should be classified as a unique communication medium. In the current review of research regarding email incivility specifically, a lack of communication richness emerged as a key variable in facilitating the perception of an incivil email message (Cummings, Butler, & Kraut, 2002; Daft & Lengel, 1984; Ngwenyama & Lee, 1997).

As previously stated, the dearth of research on the effects of incivility within email makes it clear that empirically investigating such effects is necessary, especially given the extent of its use in so many exchange contexts. To provide further background

for the current study; therefore, we now turn to the effects of specific email characteristics, as identified by existing research. The following section discusses the salient effects of email characteristics on recipients.

Email Characteristics and Perception of Email Incivility

Within the email environment, specific characteristics of email have been found to influence recipients' levels of negative affect as well as the perception of incivility in their assessment of email (Hair et al., 2007; Ramsay & Renaud, 2012; Taylor et al., 2008). The following section reviews the current research on the effects these characteristics have on email recipients.

Physical email characteristics. Structural effects refer to the physical attributes of email. Grammatical and spelling errors, the email process itself, use of the carbon copy (cc'd) feature, time of day, syntax of the email message and volume of email are structural concepts suggested to have the most negative effect on email recipients (Friedman & Currall, 2003; Lim & Teo, 2009; O'Kane & Hargie, 2007; Vignovic & Thompson, 2010).

Using a self-report methodology within an online survey, Hair et al. (2007) determined that email with specific physical characteristics was perceived as being incivil, and influenced an email recipient's sense of self-esteem and locus of control. Characteristics described as contributing to the perception of incivil email include particular physical characteristics and/or content. For example:

- The use of all capitals in the text implies shouting, the loudness of which can be emphasized by bolding and/or underlining.

- Overuse of punctuation, particularly when using it to simulate a word, often infers swearing.
- Copying the email to individuals not part of the email relationship creates a sense of embarrassment, shame or questioning as to why others are being sent the email.
- The use of ambiguous messaging and inference creates confusion and stress for the recipient.
- The avoidance of a proper salutation or a closing comment is demeaning and infers the recipient is not worthy of a respectful communication.
- Writing in a terse, succinct, demanding, tone conveys the message the sender is angry even though the email may not contain an actual angry message.

These properties created a sense of unease for the recipient (Hair et al., 2007; Waldvogel, 2007).

According to Ramsay and Renaud (2012), historically, email messages contained “expected” grammatical and typographical errors with abbreviated words and subsequent ambiguity. Licklider and Vezza (1978) state that these early email authors used concise messages often containing errors and the recipients were not offended by the errors or ambiguity of the message. It was the expectation of the email message to be less than perfect in order to fulfill the speed of transmission requirement of that time. However, similar error-based characteristics of current email cause concerns for recipients (Black, 2006; Flynn, 2008; Hair et al., 2007; Lim & Teo, 2009) and are often interpreted as being incivil.

Process effects. A process effect in email refers to how an email is literally electronically processed (Friedman & Currall, 2003). For example, email is sent irrespective of the time of day, or whether the recipient is actively using their computer in order to acknowledge receiving it. Friedman and Currall (2003) hypothesized that email conflict escalations result from a breakdown in its process effects. This is explained by how individuals in an email interaction are limited by the structural properties of the email itself, such as its asynchronous property, where the individuals involved in the email exchange do not have to participate at the same time. There can be a delay of hours or days before a response is sent, thus a delay in acknowledging the message. Additionally, delaying a response that has a return time expectation associated with it may send a message that the email recipient or the email information is unimportant, or not worthy of a quick response. This is different from face-to-face communication, which is synchronous, requiring both individuals to interact with each other in order to have a dialogue or continue listening.

Friedman and Currall (2003) propose that it is the lack of structural and contextual cues such as aural cues, face-to-face synchronous communication, and lack of a shared communication objective, such as a work topic, which contribute to conflict escalation within an email environment. As stated by Andersson and Pearson (1999), the workplace incivility escalation spiral can be explained by the emotional effects of a communication process when conventional norms of polite communication are violated. Friedman and Currall similarly propose that the structural and contextual properties of email act as a communication process constraint, thereby influencing email conflict escalation.

Carbon copy or effects of the cc'd feature of email. In a comparison of the email environment to face-to-face communications, O’Kane and Hargie (2007) explain that characteristics related to the ability to copy others unrelated to the email communication exchange are negative outcomes of the email process and contribute to ambiguous meanings of messages. The carbon copying or cc’ing of email to other individuals, either in positions of power over the actual email recipient or otherwise unrelated to the email recipient, infers that the sender wants others to share the message, from either a positive or negative viewpoint. From an incivil point of view, it serves as a method of making the email recipient uncomfortable and questioning why others are involved in the communication, thus creating and/or reinforcing the ambiguity of the message.

Email volume and time of day effects. Perception of anxiety based on email volume is a common theme in the available research. Due to the speed at which email can be created and sent, the number of recipients to whom it can be sent at a time, and the lack of a restrictive time of day schedule for sending or replying to email, it is easy to understand how the sheer volume of it can quickly add up if not properly managed.

Email volume can overwhelm a recipient, perhaps influencing their perception of receiving an incivil email (Francis et al., 2015). The Radicati Group (2011) established that 89 billion emails are sent daily. Employees, on average, receive approximately 20 to 100 of these work related emails with which they must deal every day (Radicati Group, 2011; Taylor et al., 2008). For some individuals, this creates a stressful work situation. Being required to manage the volume of such emails as well as one’s emails not related to work creates what is now termed “techno-stress” (Arnetz & Wiholm, 1997; Lim &

Teo, 2009; Ragu-Nathan, Tarafdar, Ragu-Nathan, & Tu, 2008; Tarafdar, Tu, Ragu-Nathan, & Ragu-Nathan, 2007).

Technostress results in employees feeling that they are always connected or “on” for work, never allowing for downtime to relax. It also impacts email recipients’ sense of self-esteem and locus of control due to the sense of feeling pressured to always respond to emails (Hair et al., 2007). This “always on” state and the need to repeatedly and frequently respond often promotes terseness in their responses to messages, perhaps inadvertently manifesting itself or being interpreted as incivil.

The ability to send and respond quickly also translates into being able to produce more messages. The increase in email volume has contributed to the techno-stress observed by current email environment researchers (Barley et al., 2011; Gauducheau, 2011; Hair et al., 2007; Mano & Mesch, 2010; Sewell, 2003; Taylor et al., 2008; Thomas et al., 2006; Vidgen, Sims, & Powell, 2011).

Black (2006) found that, in an experimental study where a work environment was simulated in a lab by using a combination of increasing workload and email volume, email recipients did perceive email to be incivil. The participants in the experimental group demonstrated an increase in perceived and reciprocal, incivil email responses in relation to the level of workload they were experiencing. Thus, using scientific method, Black’s research demonstrated that individuals facing a heavy workload have a higher propensity to interpret emails to be incivil, and to respond in kind. Yet, there is an absence of empirical evidence from studies using experimental design methodology to suggest that email content and/or characteristics alone may be a

contributing factor towards the perception of incivil behaviours or, to make definitive statement regarding their contribution to spiraling incivil email communication.

Email volume additionally was found to be a source of stress relating to an increase in anxiety levels (Francis et al., 2015; Giumetti, et al., 2013; Hair et al., 2007). In a qualitative study of 25 professionals within the same company, Gauducheau (2011) interviewed the participants to understand their experience with email as a communication tool. Results from the interviews indicated that excessive email volumes contributed to a sense of loss of control over their work, risk associated with misunderstanding the message, and invoked aggressive tendencies related to violation of communication norms, especially those related to politeness.

Barley et al. (2011) raised the argument that the social intricacies of email as well as perceived business and social norms, such as the need to respond quickly to incoming email, create a source of stress for the users. It is this stress reaction that could potentially trigger a perception of email incivility and influence counterproductive work behaviour. Other research on the effects of email overload has been found to corroborate the findings of Barley et al. (2011) (Dabbish & Kraut, 2006; Szóstek, 2011; Thomas et al., 2006; Vidgen et al., 2011; Wainer, Dabbish, & Kraut, 2011).

Culture influences and email volume. While volume of email on its own creates a stress situation for some individuals, the need or requirement to manage the volume of the email received also establishes a stressful situation. Renaud (2007) reports employees in a customer service occupation may check for new email as often as 30 to 40 times per hour. This constant preoccupation with email checking reinforces the need these employees feel to respond to the emails. Because one receives so many

emails, one becomes conditioned to continue responding. Constant checking of email is analogous to being on a variable interval reinforcement schedule (Clark, 2011; Sewell, 2003). The more responses one makes, however, the more emails are generated, hence not only continuing the conditioning paradigm but perpetuating the existence of techno-stress and email-overload.

Subsequently, the available time during the workday for on task work is reduced, increasing stress levels due to feeling behind in one's work. Renaud (2007) found that employees report email, in particular the pressure to respond to email within a short time period, as the source of their stress. It can be argued, however, that Renaud's interpretation of the participants' preoccupation with customer service or with the need to complete a work request, positions the source of stress to be work culture-related, and not inherent to the email itself. Supporting this culture influence as a basis of stress, Taylor et al. (2008) report that many email recipients suffer from what is termed pre and post mail tension. Pre and post mail tension results from individuals anticipating the receipt and subsequent response to an original unclear or ambiguous email. The email recipient's constant monitoring of the email and its responses further exacerbates the stress response.

Email in general, as well as the nature of the email environment, has been shown to contribute to email users' increased levels of stress, anxiety, and counterproductive work behaviour. The following section presents research findings on how incivility, as a perceived characteristic of email, is related to the level of authority, or positional power, the email sender has over the email recipient, and not necessarily the message of the email.

Positional power. The positional power of who sends an email has an influence on how it is perceived. Lim and Teo (2009), investigating the perception of supervisor incivility using email as a communication vehicle in the financial and banking industry in Singapore, used survey data to determine if employees felt email incivility existed within their workplace. The researchers concluded that incivil email was a prevalent part of this workplace with 91% of the 192 participants reporting that they experienced cyber incivility at the hands of their superiors. The email incivility experience negatively affected employees' job attitudes, intention to leave their current job, productivity, work performance, and attitude towards the current work place. The researchers, however, did not control for those employees who were the object of direct supervisor incivility either alone or in combination with email incivility.

In keeping with the concept of individuals with positional power being a source of incivility, Callahan (2011) suggests that employees view organizational norms regarding civil and incivil behaviours in general to be forms of power and controls by upper management over employees. High-level employees often apply the label of incivil behaviours to individuals who do not adhere to their requests, or they use incivility as coercive tactics of influence. How the organizational hierarchy's structure and communication protocols interact to either influence incivil exchanges or inhibit them is based on an interactionist approach of organizational management. Unfortunately, most organizations do not have policies in place to assist employees in understanding what constitutes incivil communications, whether they are face-to-face or electronic in nature (Callahan, 2011).

Using definitive physiological stress responses as determinants of effects of threatening emails on recipients, Taylor, Fieldman, and Lahlou (2005) investigated the effects of a supervisor, or an authoritative person, sending a reprimanding email on a recipient's blood pressure. Within a student population, the researchers measured participants' blood pressure while delivering counter-balanced email messages to each of two randomly assigned groups. The results confirmed that the more authoritative the email sender and threatening the email, the greater its effect on the participants' blood pressure reading. While this was a well-designed and controlled study, the level of threat within the email was obvious. The obvious threat within the email is in contrast to research by Giumetti et al. (2013), which emphasized an essential attribute of an incivil email is some degree of ambiguity. The email messages used in the study by Taylor et al. (2005) seem to fit a description of email harassment more closely than incivility.

Stress, Anxiety, Counterproductive Work Behaviour, and Incivility

The research reviewed thus far establishes that a relationship exists between incivility and psychological distress, anxiety, and counterproductive work behaviour (Cortina et al., 2001; Ones, 2002; Pearson & Porath, 2005; Porath & Pearson, 2010). A relationship also exists between email and stress, anxiety, and counterproductive work behaviour. Research has identified these effects originating from volume of email received and a sense of feeling always connected to the workplace (Barley et al., 2011; Baruch, 2004; Derks & Bakker, 2010; Hair et al., 2007; Kelloway et al., 2011; Mano & Mesch, 2010; Sewell, 2003). Additionally, as previously mentioned, the student/supervisor support study by Giumetti et al. (2012) using email identified by students as incivil, confirmed that the status of person who is sending the incivil email

has a negative effect on the recipient's level of stress and anxiety. The research to date has not identified the relational effects of email perceived as incivil with employees' levels of stress, anxiety, and counterproductive work behaviour within a workplace environment.

Much discussion is available on how email contributes to stress, anxiety, and counterproductive work behaviour in relation to its volume, lack of contextual cues, and physical characteristics of the messages (Barley et al., 2011; Baruch, 2004; Derks & Bakker, 2010; Hair et al., 2007; Mano & Mesch, 2010; Thomas et al., 2006). Worker stress, negative affect, anxiety level, and a predisposition toward counterproductive work behaviour may be further understood by examining the perception of incivility within email, including levels of ambiguity on the recipient. How employees appraise the email, the personal resources they utilize to cope with it, and the type of work environment they are in may be influencing factors on their perception of an email as incivil.

The Stress Model Framework

One aim of the current study is to develop a parsimonious model identifying the influence of email incivility on email recipients' (employee) levels of stress, anxiety, and counterproductive work behaviour. A useful theory for describing how email is appraised, based on the recipient's perception of its meaning and intent, is Lazarus' (1966) Transactional Theory of Stress. Current research discusses Lazarus' (1966) stress appraisal theory as it relates to effects of volume of email received and a sense of feeling always connected to the workplace (Barley et al., 2011; Baruch, 2004; Derks & Bakker, 2010; Hair et al., 2007; Kelloway et al., 2011; Mano & Mesch, 2010; Sewell, 2003).

According to Fox, Spector, and Miles (2001), counterproductive work behaviour can be thought of as a behavioural response to a strain or stressor, including workplace incivility. For those individuals experiencing job stress, the coping process used to manage the stressor demands is grounded in the appraisal component of Lazarus' (1966) transactional theory of stress. Workplace stress is appraised in terms of whether the situation is determined to be a positive stressor or a negative one. A positive stressor is viewed as a challenge; a negative stressor is perceived as exceeding one's current resources and/or coping abilities resulting in a sense of threat to the individual's esteem or well-being (Lazarus & Folkman, 1984). While not suggesting that all negative stressors result in retaliation toward the antagonist or the organization, it is recognized that counterproductive work behaviours resulting from workplace incivility create both physical and emotional costs for the employee and organization.

The following section positions the concept of stress within an email environment from the perspective of Lazarus' (1966) Transactional Theory of Stress.

Stress

A review of the relevant stress literature establishes a perspective on what stress is and the associated variables considered in the examination of email stress related outcomes (Bunk, 2007; Bunk & Magley, 2013; Lazarus, 1966; 1999; Lazarus & Folkman, 1984; Poole, Matheson, Cox, 2012; Spector, 2012; Taylor & Sirois, 2012). For the purposes of the current study, stress is a result of transactions or interactions between an individual and the situation (Lazarus, 1966). In this case, it is email. The result may be positive or negative.

The definition of stress applied to the current study refers to Lazarus and Folkman's (1984) cognitive transactional model, the Transactional Model of Stress (TMS). Lazarus and Folkman (1984) state that stress is experienced in consideration of the "relationship between the person and the environment, which takes into account characteristics of the person ...and nature of the environmental event..." (p. 21).

Psychological stress is defined as "a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (Lazarus & Folkman, 1984, p. 21). Underlying the construct of stress is the individual's perceived sense of vulnerability to the stressor.

Unmet expectations also influence how one perceives a situation to be stressful. When an individual encounters a situation whereby there is a disconnect, or ambiguity between either expectations surrounding the interaction or its outcome, both a physiological and psychological process occurs (Lazarus, 1999). Ambiguity related to the context of the situation or environment as well as what the stressor actually means also influences how the situation is perceived.

The person-environment interaction is complex. Variables such as the biopsychosocial environment, personality, knowledge of the person(s) involved in the situation, knowledge of the information relevant to the situation, and cognitive ability of the person(s) involved, all play a role in how the stressor and environment interaction result is perceived (Barley et al., 2011; Lazarus, 1966, 1999). Regarding the email environment, further contributions to the complexity of the stressor-response interaction are as follows:

- The email environment is artificial and albeit electronic; we have accepted it as normal.
- Relationships created within this environment are virtual. There is instant and ongoing interaction, even collaboration from a virtual workplace perspective, but the people involved in the communication relationship may never meet face-to-face.
- There is a lack of contextual cues providing ancillary information for the interpretation of messages. The individuals involved have to infer meaning. For example, lack of facial cues, tone of voice, and cadence may interfere with understanding of the message.
- The message content may be ambiguous in its meaning. For example, a problem may be described but there may be no action required on behalf of the email recipient. This may result in the recipient questioning whether their help is or is not being solicited.

Summary

Incivil email in the workplace is an emerging research topic. The current study has discussed the contemporary research investigating email incivility and established an operational definition of incivil email based on the currently accepted definition of workplace incivility. Based on the research reviewed, two areas were prevalent in the discussions related to email effects: the physical characteristics of the email relative to the electronic environment and the subsequent social psychology effects related to the use of email.

Key variables discussed relative to the physical characteristics of email were email volume, lack of contextual cues, use of the carbon-copied (cc'd) feature, time of day, and syntax of the email message itself. Researchers commonly stated the physical characteristics of email influenced the recipient's sense of lack of control over the volume of email received on a daily basis. Further to this, email volume appears to be a particular concern, with significant relationships being drawn between email overload and techno-stress, the stress experienced by employees working primarily within an electronic environment (Tarafdar et al., 2007).

Variables reviewed from the social psychology perspective as related to email incivility included message ambiguity, locus of control, and counterproductive work behaviour outcomes. Additionally, studies to date identified concerns researchers have regarding effects the email environment has on employees and their levels of stress. More worrisome is the recognition that, perhaps, it is not the email environment that is problematic but the use of email itself as the instrument for incivil interactions.

Incivil email variables identified to date within this proposal include: ambiguity, speed of transmission (which can be a deliberate slowness to respond to an email or quick responses), and deliberate non-responsiveness to an email request. The lack of contextual communication cues and the permanency of an email message itself based on copying email messages to other individuals either in positional authority over the recipient, or else not related to the communication topic at all, are additional incivil email variables. This lack of contextual cues within an email message often leads to an ambiguous interpretation of the message. Outcomes of these effects cause concern for employees and employers from a work behaviour and financial perspective (Barley et

al., 2011; Gauducheau, 2011; Hair et al., 2007; Lim & Teo, 2009; Pearson & Porath, 2004; Porath & Pearson, 2009). These email behaviours are suggested to have a negative psychological effect on the individuals involved in the email communication exchange.

Most studies reviewed have been theoretical or qualitative in nature with discussions suggesting that email is a source of incivility for employees (Barley et al., 2011; Taylor et al., 2008). The researchers identify shortcomings with the research methodology used to investigate the effects of email incivility. These are examined in the context of the current study and presented as follows:

- Research to date is qualitative in nature. While qualitative research provides insight regarding personal, anecdotal, and self-report effects of email incivility, experimental studies can add to the findings by identifying causal relationships between incivility within email and its effects on the recipient of the message. The experimental research approach is advantageous for workplace communication strategy and policy development, especially related to email use. Combining experimental and qualitative research methods provides a best practice approach to assist businesses with policy implementation.
- Current theoretical research does not allow inference on causality. Utilizing a workplace setting within the context of the present study examines the strength of the theoretical explanation for incivil email effects on email recipients' psychological well-being and workplace behaviours.
- Independent and dependent measures identified in studies on email volume effects appear to share common method variance, (Barley et al., 2011).

- Most studies focus on bivariate, linear relationships and neglect possible mediator and non-linear effects.
- Much research has looked at stress outcomes related to email volume.

Coincidentally, the methodology to examine the relationships between email volume and stress, uses the medium under investigation, email, perhaps creating a confounding variable in the process or as Barley et al. (2011) suggest, cancelling out the overall effect.

From these findings emerged a consistent theme related to the need to empirically study email incivility and its effect on employee well-being (Barley et al., 2011; Friedman & Currall, 2003; Taylor et al., 2008). Few studies have looked at both the person (incivil behaviour within an email communication) and environment variables (email) in predicting behaviours (psychological distress) within the same study. No study has been specifically investigating the effects of incivil email, including counterproductive work behaviour, within the workplace environment itself.

The Current Study

The main purpose of this study was to investigate whether incivility within email predicted psychological distress, operationally defined as anxiety and stress. A secondary question referred to whether incivility within email predicted the occurrence of counterproductive work behaviour.

Central to the definition of incivility is the concept of ambiguity. Thus, another purpose of the study was to investigate whether ambiguity within an email influenced its appraisal to be incivil. It was suggested that relationships between incivil email and psychological distress are mediated by appraisals of ambiguity within the incivil email.

This investigation of ambiguity as a significant influence on the perception of email incivility also substantiates the definition of email incivility.

Although previous research has investigated effects of workplace incivility on recipients' appraisal processes and outcomes of psychological distress, none have investigated these outcomes with respect to incivil emails (Fox et al., 2001; Penney & Spector, 2005; Porath & Pearson, 2012). The current study proposed to fill this gap in the research and examine the degree to which the results are consistent with the appraisal model proposed by Lazarus and Folkman (1984). The following conceptual model was proposed to explain the effect the mediating variable of ambiguity has on the appraisal of an email as being incivil (see Figure 1).

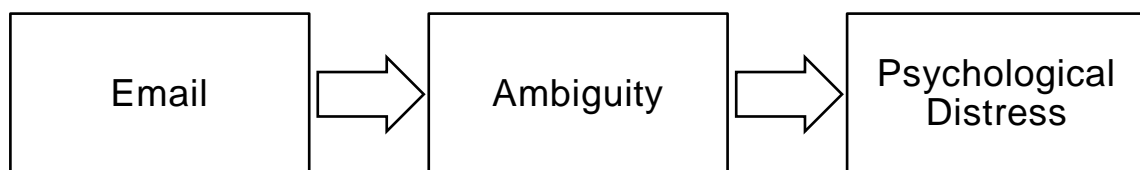


Figure 1. Conceptual model of incivil email effects.

An additional benefit of the present research is that it served as an additional test for the validity of the Incivil Email Scale (IES), (Delano Parker & Spinner, 2010).

Research hypotheses. Incivil messages are distressing, anxiety provoking, and a precipitating factor of counterproductive work behaviour (Fox et al., 2001; Penney & Spector, 2005; Porath & Pearson, 2012). Incivil email, while largely untested from an empirical perspective, was suggested to create similar results. Ambiguity, as a mediator affecting the perception of email as incivil, was expected to further increase the recipient's levels of psychological distress. Psychological distress consists of an increase in levels of stress and anxiety. The tendency towards counterproductive work behaviour

was also suggested to be a result of experiencing incivility (Andersson & Pearson, 1999) and as such, was also explored. Specifically, the following relationships were hypothesized:

H₁: It was predicted that individuals who received incivil email would experience higher levels of psychological distress than individuals who received civil email.

H₂: It was predicted that individuals experiencing psychological distress based on email incivility would also have a tendency towards counterproductive work behaviour.

H₃: It was predicted that individuals who received incivil emails they perceived as ambiguous would experience greater psychological distress than recipients of emails not perceived as ambiguous.

In summary, this study proposed to primarily investigate the effect of incivility within emails on a recipient's level of psychological distress as well as counterproductive work behaviour as a related outcome of email incivility. A secondary analysis tested the relationship between incivil email and psychological distress mediated by ambiguity.

Post hoc analysis explored the relationships between an email perceived as incivil and related levels of stress, anxiety, and counterproductive work behaviour. A unique aspect of this study was the exploration of the research questions within the workplace environment as well as the contribution provided by the addition of a qualitative measure.

CHAPTER II: METHOD

Participants

Three hundred and sixty-three employees participated in this study ($N= 363$; 226 males, 137 females). The control group included 188 participants ($n= 188$; 117 males, 71 females) and the experimental group had 175 participants ($n= 175$; 109 males, 66 females).

The participants for this study were volunteer, adult employees recruited from NB Power Corporation (an electrical utility that is a provincial Crown Corporation), Bell Aliant New Brunswick (a private communications provider), and the City of Saint John, the City of Fredericton, and national member utility corporations of the Canadian Electrical Association (BC Hydro, FortisAlberta, FortisBC, Hydro One Networks Inc., Manitoba Hydro, Newfoundland Power, Newfoundland & Labrador Hydro, Northwest Territories Power Corporation, Nova Scotia Power, Ontario Power Generation, Inc., Sask Power, Toronto Hydro, and Yukon Energy Corporation). These participant organizations employ people with a wide variety of demographic characteristics, professional affiliations, job skills, and job responsibilities. All companies utilize email as the primary mode for internal corporate communications. The age of the employees who participated ranged from 19 to 66 years ($M=46.36$, $SD = 8.996$), and the majority (68.6%) of participants reported being full time employees. The remaining participants reported being management or supervisor ($M=20.1%$); director or above ($M=8.3%$); part time employees ($M= 1.4%$); students ($M=1.4%$) or apprentices ($M=0.3%$). Participants were not asked to identify their company of employment or specific position within the company (see Appendix A for the demographics measure).

Measures

Demographics. Prior to starting the email simulation section of the session, participants were asked to provide some demographic information. The demographic information collected was: age, gender, days absent from work or school in the last three months and the reason for this absence, whether they use text messaging, the average number of emails received daily, and their occupational status (e.g., full time employee, part-time employee, management, full time or part time student; see Appendix A). Information differentiating between full time employees and students who may be apprenticing was also collected.

Further information was solicited regarding the type of communication devices used, such as cell phones or smart phones. If participants indicated that they engaged in texting, or instant messaging, they were asked to estimate how much time they spent per hour on texting or instant messaging activities. This information was gathered for the purpose of distinguishing participants who indicated that they predominantly text or instant message from those participants who use email as their primary form of communication. In total, eleven students, apprentices and part time employees were excluded from the main analysis based on their texting rates (students; $M=100\%$; apprentices; $M=100\%$; part time employees; $M=60\%$).

The Depression Anxiety Scale (DASS-21). Psychological distress, also referred to in this study as stress and anxiety, was measured using the DASS-21 instrument (see Appendix B). The DASS-21 (Lovibond, S. H., & Lovibond, P. F., 1995) is a shortened form of the 42-item Depression and Anxiety Stress Scale (DASS) by Lovibond, P.F., and Lovibond, S. H., 1995. The DASS-21 uses three, seven item subscales to measure

the symptoms common to depression, anxiety and stress. These measures can be used as a combined score of overall psychological distress or individual results of depression, “I found it difficult to work up the initiative to do things;” anxiety, “I was worried about situations in which I might panic and make a fool of myself;” and stress, “I felt I was rather touchy”. The DASS-21 was selected for this study as it had been normed and applied within a non-clinical population (Henry & Crawford, 2005). As this current study was an on-line study, an additional benefit of using the DASS-21 was its ease of online administration.

Confirmatory factor analysis research (Henry & Crawford, 2005) determined the DASS-21 is an effective, reliable measure of the separate constructs of anxiety, $\alpha=.82$, stress, $\alpha=.90$, and depression, $\alpha=.82$ with a total scale reliability of $\alpha=.93$.

Participants read the DASS-21 questions and responded to each item using a 4-point Likert-type scale, ranging in frequency from 0 = Never to 4 = Almost Always. Higher scores on the DASS-21 indicate higher states of stress, anxiety, and depression.

The Incivil Email Scale. The Incivil Email Scale (IES), (Delano Parker & Spinner, 2010) is a self-report measure of an individual’s perception of how often he or she has received incivil emails within the current survey (see Appendix C). Within this study, using a 6-point scale, with 1 = Never, 2 = Occasionally, 3 = Often, 4 = Frequently, 5 = Constantly and 6 = No Answer, the IES items ask about the perceived tone, structure, and ambiguity of emails received by the participant within the context of the current survey. For example, questions referring to the ambiguity and tone, constructs underlying workplace incivil behaviour measures (Cortina et al., 2001), were: “The email used jargon out of context, which created confusion” and “The tone of the

email was rude.” Previous reliability analysis of the IES scale obtained a reliability coefficient, $\alpha = .91$ (Delano Parker & Spinner, 2010).

Counterproductive Work Behaviour Checklist (CWB-C). Spector and Fox (2005) have found that targets of workplace incivility have engaged in counterproductive work behaviour as a stress response. The current study investigated if targets of incivil email had a tendency to engage in counterproductive work behaviour for similar stress based reasons. Counterproductive work behaviour in the current study was measured using the CWB-C 32 (Spector & Fox, 2005), a measure of counterproductive work behaviour based on the stressor-emotion model of counterproductive work behaviour and included both types of counterproductive work behaviour (Spector, Penney, Bruursema, Goh, & Kessler, 2006), personal and organizational (see Appendix D). Counterproductive work behaviour is behaviour intended to harm people within an organization or workplace (personal counterproductive work behaviour), the organization itself (organizational counterproductive work behaviour), or both (Spector et al., 2006). The CWB-C 32 consists of five subscales:

1. Abuse, $\alpha = .85$, harmful behaviour directed towards others,
2. Deviance, $\alpha = .63$, purposely doing a job incorrectly or with errors,
3. Sabotage, $\alpha = .55$, of the workplace environment including equipment damage,
4. Workplace theft, $\alpha = .63$, petty theft,
5. Withdrawal from the workplace, $\alpha = .64$, which includes absenteeism or being late (Spector et al., 2006).

The abuse and withdrawal from the workplace subscales were used as the measure of counterproductive work behaviour for the current study.

Experimental Materials

Emails. Ten civil and 10 incivil emails (see Appendix E) were used to simulate a workplace email exchange. Both email types carried the same message. The incivil emails contained varying levels of previously defined incivil email characteristics. Each email also contained an additional question or request for information from the researcher in a section of the email labelled “Dear Participant”. This was employed as a countermeasure to ensure that the email was thoroughly read, and in some instances, an email required a second reading in order for the participant to respond accurately. Email incivility had been validated prior to the actual study by a peer review ranking of each email against an incivil email characteristic checklist (see Appendix F).

Participants responded to the researcher’s question in each email either by clicking on the appropriate answer from the selections or entering their own response. These responses were recorded by the Checkbox survey application and added to the database. The participant was prompted to press “continue” in order to advance to the next email scenario. These emails were used also for the IES validation study (Delano Parker & Spinner, 2010).

Procedure

The employee recruitment process was in compliance with the UNB Department of Psychology and the University of New Brunswick Ethics Committee requirements (Canadian Institutes of Health Research, Natural Sciences and Engineering Research

Council of Canada, and Social Sciences and Humanities Research Council of Canada, *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans*, 2010).

Companies who participated in the current study had expressed an interest to do so and agreed that their employees could be contacted and participate if they so wish. The administrative person(s) in each organization responsible for communicating the research study information to employees was emailed an invitation regarding participation in the study (see Appendix G). In addition to an invitation to participate, the invitation email asked that the organization allow interested employees the necessary time of approximately 30 to 40 minutes during their workday to complete the study. This concept was important as it was felt that it added to the authenticity of the simulated workplace environment portrayed by the email simulation.

Written organizational approval, via email, for the employees' participation was received and the Human Resource (HR) Department representative or the Director of Health and Safety of each company subsequently emailed all employees inviting them to participate in the online survey researching the effects of email on recipients. In addition to the invitation to participate, the email contained descriptive information regarding the study, its purpose, and its procedures.

The email also assured employees that all information gathered through the study was confidential, that their employer would not be aware of their participation, and that their participation was anonymous. As well, the email informed employees that they were able to withdraw from the study at any time without penalty if they became uncomfortable (see Appendix H). Additionally, internal employee online bulletin boards were utilized for advertising the research study invitation. Employees interested in

participating were encouraged to respond via the research email link provided within the email solicitation or via the online bulletin board.

Upon confirmation from an employee that they wished to participate in the study, they were randomly assigned to either the control (civil email) condition or experimental (incivil email) condition and sent the corresponding uniform resource locator (URL) or “link” of the appropriate secure web site. All details of the study necessary to obtain informed consent were provided, including the statements that their individual data and identity information would remain confidential, and that their responses were anonymous. In addition, the participants were provided a description of the nature of the study and the expected time requirement for participation, and that only those who used email in their work and/or personal lives were eligible for participation in the study. Finally, participants were asked to confirm that they were still interested in participating (see Appendix I).

Upon confirmation of their continued interest, the Checkbox survey system assigned each participant a random identification number, which was used going forward as their system identifier. Thus, it was impossible to connect the employee’s responses with their name or email address. At this point, the employees were referred to as participants and given access to the research study’s online consent form (see Appendix J). Participants agreeing to continue with the study responded to the demographics questionnaire (Appendix A). Upon completion of the demographics section, the simulation part of the study commenced.

Participants engaged in a workplace email simulation, requiring them to play the role of a new employee at a mid-sized sports company. In this role, participants read and

then responded to 10 email messages from colleagues at their new job (see Appendix E). Participants in the control condition received 10 civil emails to which they responded while participants in the experimental condition received 10 increasingly incivil emails.

Each email contained a question or request for information of the participant related to that specific email to ensure the emails were read. After responding, the participant was prompted to press “continue” in order to advance to the next email scenario.

Upon completion of the email simulation, participants completed the DASS-21 depression, anxiety, and stress scales and the Incivil Email Scale (IES). Within each condition, the order of these measures was randomly presented to the participants to control for order effects. The CWB-C32 was presented to all participants last.

A final qualitative measure provided additional information regarding the participants’ experience with incivility in general. The measure was the following question: “Could you provide comments related to your experiences of incivility?” Participants were provided a free text response format for their answer. This question was not mandatory.

Participants were thanked for completing the study, taken through an online debriefing (see Appendix K), and provided with the principal researcher contact information if they had any research related questions. Participants who asked to receive additional information or a summary of the results of the study were invited to send an email address to a separate research mailbox.

CHAPTER III: RESULTS

Data Conditioning and Missing Data

Data for each dependent variable (DASS21, IES, and CWB-C), for each predictor variable (group, condition, ambiguous email), and demographic variables (gender, age, position, days absent, reason for absence, number of emails received per day) underwent screening for data entry accuracy and missing data. Two participants were missing the requisite informed consent and their data were excluded from analysis. The final sample size consisted of $N=363$.

Less than 5% of the participants had missing scores on the dependent measures. Visual analysis suggested the missing scores occurred randomly. For each missing value, item means were calculated. Missing scores were replaced with the individual item mean for each participant following the recommended procedure of participant item mean substitution for each missing value (Tabachnik & Fidell, 2001).

Raw scores of the DASS21 were converted to standardized Z scores and checked for univariate outliers, Z scores > 3.26 (Tabachnik & Fidell, 2001). Less than 3% of the scores fell into this category. Inspection of the normal probability plot of scores, boxplot results of the scores, and a frequency distribution of scores identified the position of the outliers relative to the rest of the scores. Outlier scores were replaced with the largest valid value (score) for the overall DASS21 distribution. This preserved the authentic response pattern found in this sample where extreme cases are the reality of a work population and to be expected. Additionally, given the nature of the dependent measures, anxiety and stress, extreme scores from participants within a work environment were anticipated, given the sample included a wide range of occupations,

including Emergency Response Personnel. Yet, subsequent visual inspection of the normal probability plot of scores confirmed that there was no violation of normality.

IES scores measuring incivility within email were positively skewed (*Skewness* = .81) and no outliers were identified. CWB-C scale scores were also positively skewed (*Skewness* = .78) and no outliers were identified within the response set. The scores from these two scales fell within the -1 to +1 range of skewness values for identifying violation of normality (Meyers, Gamst, & Guarino, 2006).

Mahalanobis distance, with the critical value of χ^2 for $\alpha < .001$ (Tabachnick & Fidell, 2001), was used to examine the DASS-21, IES and CWB-C scores for multivariate outliers. Three cases exceeded the criterion, $\chi^2(3) = 16.26$ (Tabachnick & Fidell, 2001), indicating that these three cases had extreme combinations of scores on the three variables. Examination of the case scores determined that while they were on the outside limits of the data distribution, they were not discontinuous from the sample distribution. It was decided these cases represented genuine, although extreme, responses by this particular group of employees. A comparison of descriptive measures with and without the outliers established that removal of the outliers was not an influence on the outcome of significance tests, thus reinforcing this decision as an acceptable one. Therefore, no cases were excluded based on this criterion.

The assumption of equality of variance across the two groups (incivil and civil) on the DASS21, IES and CWB-C scales was tested using Levene's Test of Equality of Error Variances. Non-significant results, $p > .05$, suggested that the assumption was not violated.

A linear relationship between the dependent variables, DASS21, IES and CWB-C was determined by visual examination of the scatterplots.

Order Effects Analysis

To determine whether the order of completing the dependent measures of the DASS21 and the IES, after undergoing the email simulation, influenced the results, a MANOVA was conducted using each of the four groups, as described in Table 1. Using $\alpha=.001$, there was no interaction effect of the participant's placement into either the civil or incivil email condition with the order in which they completed the DV measures, the DASS21 and the IES; Wilks' $\lambda=.998$, $F(2, 358)=.29$, $p >.001$, partial eta squared = .002. All participants, regardless of their group membership, completed the CWB-C last.

Table 1

Dependent Measures Order of Completion Per Group

Order	Control		Experimental	
	Civil		Incivil	
First	DASS21	IES	IES	DASS21
Second	IES	DASS21	DASS21	IES
Third	CWB-C	CWB-C	CWB-C	CWB-C

Based on the non-significant interaction effect of Condition with the order in which participants completed the DASS21, IES and CWB-C measures, the Order effect was dropped from further analyses (below).

Demographics

Summary responses to related demographic questions are presented in Table 2. The demographic questions are presented in Appendix A.

Table 2

Demographics

	Civil Email Group		Incivil Email Group	
	Male (n = 117)	Female (n = 71)	Male (n = 109)	Female (n = 66)
Gender				
Age (\bar{x})	48	44	48	43
Position (n)				
Student	1	3	1	0
Full-time	73	55	71	50
Part-time	2	0	1	2
Manager or above	32	10	22	9
Director or above	9	3	14	4
Other	0	0	0	1

The reported ages of the participants is represented equally between both the civil and incivil email group. The position held by those participants who responded to the question was also represented fairly within both the incivil and civil email groups.

Pearson product moment correlations were calculated to assess the assumptions of multicollinearity between the DASS21 measure of psychological distress, the IES and the CWB-C. The results, presented in Table 3, indicate that there was no multicollinearity between the three measures.

Table 3

Correlations Between the DASS21 and Subscales, the IES, and the CWB-C

	1	2	3	4	5	6
1. DASS21	1					
2. Anxiety	.84**	1				
3. Stress	.92**	.68**	1			
4. Depression	.87**	.62**	.72**	1		
5. IES	.34**	.25**	.36**	.27**	1	
6. CWB-C	.33**	.27**	.33**	.27**	.19**	1

Note. ** indicates correlation is significant at .01 level (2-tailed).

A further analysis was conducted to examine the correlations among measures of psychological distress (the DASS21 and its three subscales of anxiety, stress and depression), the receipt of inappropriate emails at work (the IES), and counter-productive behaviour at work (the CWB-C). The CWB-C measure consisted of the two subscales; withdrawal (being absent or avoiding work) and abuse (negative behaviours towards others) (Spector, 2012). These subscales most directly measured behaviours found in the incivility literature (Pearson et al., 2000) and as such, were combined to create the total CWB-C measure. Table 3 contains all correlation results. Given the sample size and large number of correlations tested for significance, the criterion for significance was set at $p < .01$. Assumptions of multicollinearity were not violated between the DASS21, the IES and the CWB-C, all r 's $< .70$, (Tabachnik & Fidell, 2001).

The anxiety, stress, and depression subscales of the DASS21 were strongly related to the total DASS21 score, as would be expected given that they are subsets of the main psychological distress measure (Henry & Crawford, 2005). Because the subscales are so highly correlated with the DASS21 total (all r 's > 0.84) as well as each other (see Table 3), the construct psychological distress, as measured by the DASS21 total score, was used in future analyses, and data from the separate subscales were discarded.

The CWB-C total score was found to have significant positive correlations with all variables as depicted in Table 3. The CWB-C total score scale was used in the research analyses.

The IES was a measure of incivility within emails. Therefore, it was expected to have a small relationship with the counterproductive workplace behaviours measure, given the common implication of the concept of negative behaviour within each measure. Similar inferences were made regarding relationships between the IES and CWB-C with the measures of psychological distress, anxiety, stress, and depression; results in Table 3 support these expectations.

Descriptive Measures

Dependent measures scale scores used in the analysis were computed by creating a sum total score of each measure for each participant of the DASS21, the IES, and the CWB-C. The DASS21 item scores were doubled to maintain comparison to the full DASS42 version (Henry & Crawford, 2005). The DASS21 was also divided into its three, seven-item subscales to create individual measures of anxiety, stress, and depression (Henry & Crawford, 2005).

Higher item scores represented a higher level of the construct measured by each scale and subscale; i.e., greater psychological distress, anxiety, stress, depression, perception of incivility within an email, and performance of counterproductive work behaviours. For example, the DASS21 responses were based on a 4-point Likert-type scale ranging from 0 (Did not apply to me at all) to 3 (Applied to me very much or most of the time). The IES item responses used a similar Likert type scale ranging from 1 (Never) to 5 (Constantly). A response value of 6 (No Response) was recoded to 0 and treated as missing to avoid misrepresenting the item scores. The CWB-C responses were recorded using a 5-point Likert type scale ranging from 1 (Never) to 5 (Everyday).

Mean scores (M), standard deviations (SD), and Cronbach's alpha reliability coefficients for each dependent measure and subscale, separately for each experimental group, are presented in Table 4. The DASS-21 total and subscale scores had reliabilities that ranged from good to excellent. The IES had excellent reliability in both experimental groups. The CWB-C scale had good reliability for both groups.

Table 4

Means, Standard Deviations and Cronbach's Alpha for the Dependent Measures

Measure	n of items	M (SD)		Alpha Reliability Coefficient	
		Civil (n = 188)	Incivil (n = 175)	Civil (n = 188)	Incivil (n = 175)
DASS21	21	60.10 (16.44)	64.16 (20.17)	.91	.93
Anxiety	7	17.74 (5.19)	18.99 (6.87)	.76	.86
Stress	7	22.67 (7.43)	24.74 (8.16)	.85	.86
Depression	7	19.80 (6.79)	20.40 (7.29)	.85	.87
IES	19	38.68 (11.38)	41.19 (11.68)	.91	.89
CWB-C	21	25.96 (3.78)	26.42 (3.86)	.72	.74

Note. Higher scores on the DASS21 and subscales indicate higher perceived levels of negative affect.

Tests of Hypotheses

Hypothesis 1 stated that individuals who received incivil emails would experience higher levels of psychological distress than individuals who received civil emails. Hypothesis 2 predicted that individuals experiencing psychological distress based on email incivility would also have a tendency towards counterproductive work behaviour. A one-way MANOVA, with experimental group (civil or incivil emails) as the predictor, examined if the type of emails received had an effect on reports of receiving an incivil email (a manipulation check assessed by the IES) and the amount of psychological distress experienced (assessed by the DASS21).

The manipulation check on the IES indicated that the incivil email manipulation was effective. A *t*-test compared the mean sample scores for the IES of the civil email experimental group [$M(SD) = 38.68 (11.38)$] with the IES scores of the incivil email experimental group [$M(SD) = 41.19 (11.69)$]. The result was significant ($t = -2.06, p < .05$), indicating that group two, the incivil email group had significantly higher scores on the IES. Thus they perceived their emails to be more incivil than did group 1, the civil email group.

Results of the one-way MANOVA indicated that there was a significant multivariate effect for the type of email received on psychological distress, Wilks' $\lambda = .982, F(2, 360) = 3.29, p < .05$, partial eta squared = .02. Thus, Hypothesis 1 was supported: those individuals who received incivil email subsequently reported higher levels of psychological distress.

A second one-way MANOVA was conducted to explore the effect of incivility within email on counter-productive behaviour in the workplace (assessed by the CWB-C). Results of the one-way MANOVA indicated that there was no significant multivariate effect for email incivility and counterproductive workplace behaviour, Wilks' $\lambda = .987, F(2, 360) = 2.45, p = .09$, partial eta squared = .01. Therefore, Hypothesis 2 was not supported; perceived incivility within an email environment does not support a tendency towards CWB.

Hypothesis 3 stated that individuals who receive incivil emails they perceived as ambiguous would experience greater psychological distress than recipients of emails not perceived as ambiguous. Perceived ambiguity was assessed by positive responses to the question "At work I have received an ambiguous email." This means that if they

responded in the affirmative to this question, it would translate in ambiguity as a mediator in the resulting analysis. Using the incivil email experimental group to control for the receipt of incivil email, a one-way ANOVA was conducted to determine the relationship between perceived ambiguity within incivil email and psychological distress, using the DASS21 measure. A significant effect was found, $F(1, 173) = 6.88$, $p < .05$, partial eta squared = .04. Hypothesis 3 was supported.

Post Hoc Analysis

Additional analysis was conducted examining the influence of ambiguity within incivil email on the DASS21 subscale scores (anxiety and stress) and CWB-C scores using a one-way MANOVA. For the participants in the incivil email condition, there was a significant difference between incivil emails perceived as being ambiguous and incivil emails not perceived as ambiguous on the combined constructs of stress, anxiety and counterproductive work place behaviours, Wilks' $\lambda = .949$, $F(3, 171) = 3.08$, $p < .05$, partial eta squared = .05. ANOVA results of these tests are found in Table 5, using an alpha = .017 for the criterion of significance, after applying the Bonferroni correction $.05/3 = .0166$. Thus, the results indicate ambiguity influences the tendency towards stress and counterproductive work place behaviours but does not significantly influence levels of anxiety.

Table 5

Analysis of Variance (ANOVA) Results: Mean Differences in DASS21 Subscales and CWB Scores by Perceived Ambiguity Within Incivil Email

	Perceived Ambiguity	Mean (N)	F(df)	p
Stress	Yes	25.48 (142)	6.29 (1,173)	.013*
	No	21.58 (33)		
Anxiety	Yes	19.48 (142)	3.80 (1,173)	.053
	No	16.91 (33)		
CWB	Yes	26.77 (142)	6.46 (1,173)	.012*
	No	24.91 (33)		

Note. * Considered significant using an alpha = .017

Post Hoc Mediation Analysis

The results of the current study suggest that ambiguity plays a role affecting levels of perceived email incivility and psychological distress, but the exact role it plays is largely untested. Results demonstrate that there is a relationship between perceived email incivility and levels of psychological distress. The results also indicate that there is a relationship between perceived ambiguity and levels of psychological distress. It is not known if ambiguity influences, or mediates, the relationship between perceived email incivility and levels of psychological distress. Hence, a secondary question related to the current research concerned how the perception of incivility within an email indirectly affects the email participant's level of psychological distress through the mediating cause of ambiguity. Thus, using the PROCESS macro (Hayes, 2013) version

2.15 for SPSS, it was decided to examine whether ambiguity mediates the relationship between perceptions of email incivility and psychological distress.

Using ordinary least squares methodology, the PROCESS macro tested both the direct effects of the independent variables of perceived email incivility (X) and ambiguity (M) on the dependent variable, psychological distress (Y) as well as the indirect effect of perceived email incivility on a participant's level of psychological distress through the mediating variable, ambiguity. A bootstrapping method with replacement 5000 times was used for testing the indirect effect (Preacher & Hayes, 2008).

Mediation analysis considers: 1) the relationship of email incivility with ambiguity, referred to as a direct path; 2) the relationship of ambiguity with psychological distress, also a direct path; and 3) the total effect of perceived email incivility on psychological distress while controlling for ambiguity. For ambiguity to be considered a mediator there must originally be: (a) a significant relationship between perceived email incivility and psychological distress, referred to as a total effect; (b) a significant relationship between perceived email incivility and ambiguity; and (c) a significant relationship between ambiguity and psychological distress (Preacher & Hayes, 2008).

Results of the current mediation analysis determined that the perception of ambiguity within an incivil email does influence, or mediates a recipient's level of psychological distress, $F(1,361) = 4.45, p < .05, b = 4.06, 95\% CI = 0.28 - 7.85$. This is the direct effect of perceived email incivility on psychological distress while controlling for ambiguity. Ambiguity accounts for 32% of the total effect on psychological distress.

To follow the path of influence in arriving at the outcome, a significant direct effect was found between perceived email incivility and the perception of ambiguity, $F(1,361) = 4.30, p < .05, b = 2.51, 95\% CI = 0.13 - 4.89$. A significant direct effect was also found between the perception of ambiguity in email and psychological distress, $F(2,360) = 24.12, p < .05, b = .52, 95\% CI = 0.37 - .68$. Perceived email incivility no longer directly affected psychological distress independent of the inclusion of the perception of ambiguity, $F(2,360) = 1.50, b = 2.76, p > .05, 95\% CI = -0.85 - 6.36$.

To satisfy the requirements of a mediation analysis, email perceived as incivil no longer directly predicts psychological distress when controlling for ambiguity. A non-significant direct effect after controlling for mediation is suggestive of full mediation (Hayes, 2013; Preacher & Hayes, 2008; Wuensch, 2015) although Rucker, Preacher, Tormala and Petty (2011) recommend that the interpretation of full mediation be based on the theory directing the hypothesized relationship. These results support the mediational research question. Given the emphasis on ambiguity as being a critical construct of the definition of incivil behaviour and paired with the mediation analysis outcome, the full definition of incivil email is now confirmed to include the construct of ambiguity. Figure 2 demonstrates the mediated relationship.

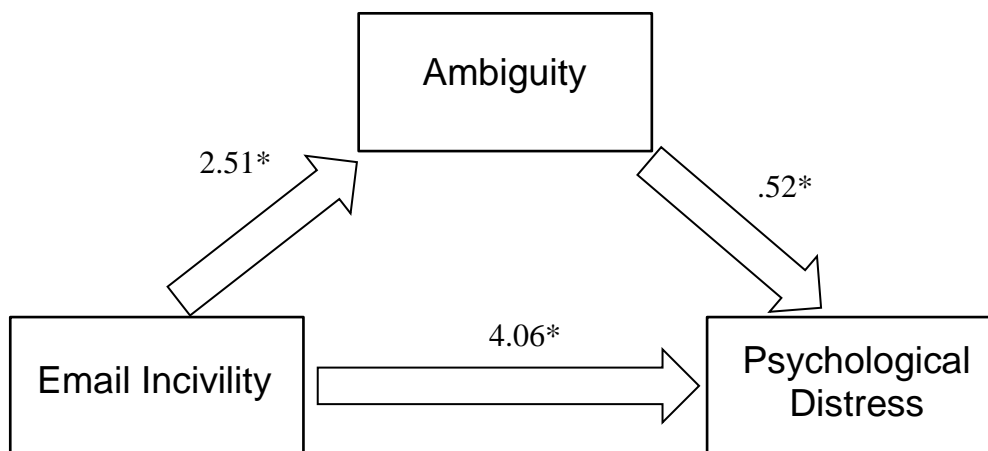


Figure 2. Ambiguity mediates the effect of incivility in email on recipients' levels of psychological distress. Values are unstandardized coefficients. * = significant at .05

Confirmatory Factor Analysis of the IES

Confirmatory factor analysis using SPSS AMOS ver. 23 was conducted on the IES using a restricted measurement model of two factors based on a two-factor solution from previous principal components analyses (PCA). The original PCA with Varimax rotation were conducted on the IES using first a workplace (n=56) sample, second, a university student (n=128) sample and third, a combined database of both samples (n=184). These analyses had initially suggested that a two-factor solution, labeled *structure* and *tone* was the best model fit for the data. Ten items of the original 19 were identified for retention on these two subscales (tone with six items and structure with four items), with the key criteria for item retention being rotated component loadings > .03, and simple structure (Spinner, 1989).

Prior to the current confirmatory factor analysis (CFA), a PCA using the current dataset, n = 363, was completed and a two factor solution was again found to be the best fit for the data, accounting for 52% of the variance, with five items loading on each component (see Table 6). This loading structure was determined to be a logical fit and replaced the original four and six item component loading per subscale. This analysis

was necessary to confirm the model size to be tested based on a larger sample size (363). The current sample size of 363 gave a good representation of the final model (Tabachnick & Fidell, 2001) and all data assumptions were met regarding normality. Revisiting the individual items for common themes resulted in renaming the factors from *tone* and *structure* to *annoyance* and *confusion*.

Table 6

Factor Loadings for the Incivil Email Scale (N = 363)

Item	Item number	Annoyance	Confusion	Communality
I received a discourteous email.	18	.850		.797
I received an email that was incivil.	19	.848		.749
The tone of the email was rude.	13	.805		.738
The email was composed entirely in upper case.	5	.601		.394
I am (was) continuously being sent emails from the same sender even though I have (had) asked for it to stop.	11	.493		.265
There was an obvious excessive presence or absence of punctuation (Poor overall syntax).	4		.704	.522
My email requests for information or a response are/were unanswered.	16		.678	.473
The email created ambiguity and required me to respond asking for clarification.	8		.641	.496
There was an inappropriate absence of a closing remark (i.e., Thank you, Sincerely, Regards) that seemed deliberate.	3		.622	.468
The email was flagged as important but upon reading it, I found it was not.	1		.562	.346

Confirmatory factor analysis (CFA) supported the two component model and results identified it was the best model fit to the data. These results are in keeping with previously reported PCA two- factor solutions of the IES, using both an employee and student population. A non-significant chi-square result, $\chi^2(26, N = 363) = 34.98, p > .05$, supported the model fit and acceptance of the null hypothesis, while a one-factor solution did not. This also served as a confirmation of the normal distribution of data.

Goodness of fit indices were analyzed to determine if the suggested model was an accurate representation of the data. The CFA goodness of fit indices are all within their acceptable range. The Root Mean Squared Error of Approximation (RMSEA) = .031, $p < .05$ supports the two factor model as a close fit and is related to the degrees of freedom. The Comparative Fit Index, (CFI) = .993, $> .95$, and the Tucker-Lewis Index = .987, $> .95$ are both within the excellent and good range, respectively. These two indices refer to the average correlation between factors (Kline, 2013).

Factor loadings ranged from .493 - .934 for the construct, Annoyance while loadings for the construct, Confusion ranged from .489 to .646. A large N (N=363) provided confidence that the results of the fit indices are not inflated (Kenny, 2015). The two-factor model fit the data very well and provides confidence for use of a two factor IES measure of incivil email.

Qualitative Analysis

Upon completion of the survey measures, participants were asked the question, “Could you provide comments related to your experiences of incivility?” This question provided descriptive information regarding the experience of incivility.

Ninety-nine responses were received from participants in the incivil email group and 86 responses were received from the civil email group. For the purposes of the current research, a thematic analysis was performed. Quotations are offered as examples of the various themes to provide an experiential perspective of incivility. To maintain anonymity and confidentiality, code numbers and discontinued identities between quotations sometimes have been used. In one instance, a name within the quotation was changed to maintain anonymity. Quotations have been edited to facilitate reading comprehension (e.g., repeated words and hesitations have been removed). Much care was taken to insure that the meanings of the quotations have not been modified.

Thematic Analysis

The following themes emerged from the responses participants provided. It is noteworthy that themes corresponded to those currently found in the literature on incivil behaviours and incivil email.

Lack of information clarity. Comments were received whereby email recipients stated how they believed messages were deliberately confusing, unclear, or ambiguous. These messages were considered incivil. The current study had as a key finding that ambiguity within email significantly influenced the level of psychological distress an email recipient experienced and the qualitative data seem to support this position. One participant stated the following: “I would say the ambiguity of a few emails seeking and needing clarification [was incivil]. [Also] Receiving meeting requests with no purpose or objective.” (P1). Another participant also wrote about their experience with ambiguity in emails:

The lack of clarity in incivil emails has left me feeling confused and uncertain which course of action to take. The improper use of grammar, punctuation, syntax and case add to this uncertainty. Often I am left trying to determine the emotion the sender is trying to convey... (P2)

Use of all capital letters. The use of all capital letters within an email has become synonymous with the interpretation that the email recipient is being shouted at. The effect of this type of email, as described in the next participant's quote, clearly has a negative connotation: "I sometimes receive e-mails where the sender uses capital letters or bold letters to make a point. I find it rude and condescending..." (P3).

Lack of acknowledgement or response to an email. Not having a response to a work related email has been found to be a stressor. The sender of the email may constantly check their email if a response is anticipated, particularly if it is required to complete a work process (Taylor et al., 2008). Additionally, it may appear as a snub, or lack of respect. Depending on the psychological state of the individual expecting the email, this waiting and checking may be distressing (Friedman & Currall, 2003). An example of this is described in a participant's comment as follows: "I also find it aggravating when a recipient doesn't acknowledge my e-mails." (P4).

Lack of proper salutation, ending, or closing comments. An abrupt entry into an email communication or ending of one without acknowledging the status of the person to whom the email is addressed can be perceived as condescending (Hair et al., 2007). According to Andersson and Pearson (1999), such communication plays a role towards the spiraling or escalation of incivil communications. The following participant describes the experience of receiving such an email: "...lack of closing statements such

as "regards," "thank you" etc. is common...often my name is misspelled (e.g., Michael vs Michelle)...” (P5).

Carbon copying or forwarding email to unnecessary individuals/audiences.

Individuals who are victims of the deliberate copying of an email message to an audience not clearly involved in the communication often interpret this action as an attempt at control or incivility. According to this perspective, such copying serves to reinforce the confusion and ambiguity associated with the action, leaving the target questioning why it is happening. Ultimately, it results in an increase in stress (O’Kane & Hargie, 2007). Participant 6 describes the occurrence of carbon copying an email to a wider audience: “Frequently, it [incivil messaging] occurs in email, especially sarcasm, and then I am put in a position to respond to something inappropriate, [the incivil message], which has been copied to an extra-large audience” (P6).

Requesting unreasonable response times. Depending on the position of the individual making the request, a request that requires a response in a time period that is unreasonable can appear as a play for positional power over the email recipient. This type of communication is considered incivil messaging as such requests tend to be stress provoking and demeaning (Taylor et al., 2008). Communication of this type sends the recipient the messages that the recipient cannot be trusted, and requires direct oversight in order to complete her/his work. The following quotation exemplifies this perspective.

A few co-workers mean to be not friendly and not co-operative, so they do not reply to my emails in a timely manner. Even if they do, simple email writing from them is so incivil it makes me want to be ambiguous in my response... Also, emails I get from other people in the company wanting to know what is

taking so long in getting a task completed [are incivil]. Emails from my manager about why I was not at my desk when he came by my office [is another example]. Emails from my manager that said I had to respond to them right away, and although I was sick, I could not leave work because of these demands. (P7)

Spiraling effect. Documented in 1999 by Andersson and Pearson, the spiraling effect, meaning the increasingly incivil responses to an original incivil behaviour, (or email in a similar fashion), has become a flagship behaviour associated with incivility. Participants spoke of these as leading to an emotional response, namely, a stress response in the face of incivility. The emotional component of the spiraling effect can precipitate increasingly incivil and ultimately even violent behaviours. In the current study, although the experience was not stated in relation to an incivil email, its inclusion is important and is exemplified by the following comment: “I find it difficult sometimes to keep myself from being incivil [back] with people who have caused me pain [by acting incivil towards me]. I work with some pretty nasty people in an often stressful environment.” (P8)

Emotional witness effect on the target/recipient. In some cases, an individual who was copied on the email experiences negative emotions as a result of witnessing the incivility directed at someone else. In some cases, as in the following example, the person copied on the email is the one who is the subject of the incivility, but was copied by mistake. The experience of witnessing the incivility, or being the subject of it and seeing others witness it is distressing (O’Kane & Hargie, 2007). This is especially true within an office environment where the witness and the target may be co-workers.

Emotional impacts such as embarrassment, stress, or shame seemed linked to this type of incivility, such as described in the following quotation: “Had received an email by mistake that was not meant for me to see, as a party involved was talking about me in a negative way. [It was hard.]” (P9).

In summary, the following themes emerged in the qualitative data: lack of information clarity, use of all capital letters, lack of acknowledgement or response to an email, lack of proper salutation, ending, or closing comments, or opening salutation within an email, carbon copying or forwarding email to unnecessary individuals or audiences, requesting unreasonable response times, spiraling effect, and emotional witness effect on the target/recipient. These have been identified previously as incivil characteristics within email in relevant literature, and also have been identified as having a negative impact on individuals (Barley et al., 2011; Hair et al., 2007; Taylor et al., 2008).

The themes identified in the present study, therefore, are in line with those previously reported in the literature describing the occurrence of such behaviours in the work place. Thus, in their qualitative comments, participants confirmed the presence of incivility in the work-related email environment. As well, the emotion reflected within the comments suggests that incivil email has a negative psychological impact on the person receiving it.

CHAPTER IV: DISCUSSION

Overview

The present research empirically assessed the influence of incivil email on workplace stress, anxiety, and counterproductive work behaviours. Whereas previous research placed incivil email in the same category as incivil behaviours, either from a theoretical or non-workplace environment, the current research examined incivil email specifically. The research took place in a workplace environment, which enhanced its external validity, and more specifically, its ecological validity. Moreover, it made use of an experimental methodology to determine the impact of incivility within email.

To discuss the findings, this chapter presents the definition of incivil email and then provides a discussion of (a) the results of the stated hypotheses, (b) the proposed stress model, (c) limitations of the current study and directions for future research, and (d) concluding comments regarding the contribution of this study to the literature and the potential devastating effect that can result from incivility within email. Participant qualitative comments are included in the discussion to provide examples from an experiential perspective.

One aim of the current study was to establish a definition of “incivil email”. Previous definitions of incivil email were grounded in research on incivil behaviours, theoretically establishing the concept of ambiguity as a key factor in the definition (Andersson & Pearson, 1999; Giumetti et al., 2013; Mano & Mesch, 2010; Vignovic & Thompson, 2010). In the current study, mediation analysis determined that ambiguity significantly mediates the relationship between incivil email and psychological distress. It conclusively establishes the incivil email definition as an email that implies rudeness,

disrespect, and disregard for the recipient in a manner that is contrary to socially acceptable norms for communication. An incivil email also lacks any clear aggressiveness, which may make its interpretation confusing, ambiguous, and questionable to the recipient (Delano Parker & Spinner, 2010). Given its now established empirical support, this definition is used as the basis for the following discussion. As reported by Bunk and Magley (2013), the following participant's comment speaks to how incivility can span across both the behavioural and email environments within a workplace, and how each environment on its own can have negative psychological effects.

I was the victim of political manipulation . . . the individual constantly undermined the work being done by our office, the management of the office and did so in a public and humiliating manner, which [also] included email messages and other forms of correspondence...(P10).

Hypotheses

Hypothesis 1 predicted that recipients of incivil email would experience higher levels of psychological distress than their co-workers who did not receive incivil email. Results supported this hypothesis. The participants receiving incivil email did experience higher levels of psychological distress than those not receiving incivil email.

Hypothesis 2 predicted that individuals experiencing higher levels of psychological distress related to email incivility would also have a higher tendency towards counterproductive work behaviours. The suggestion of incivility within email being a predictor of counterproductive work behaviours was not substantiated.

The higher level of psychological stress is similar to the previous findings on psychological distress as an outcome of incivil behaviour (Andersson & Pearson, 1999; Cortina & Magley, 2009; Porath & Pearson, 2012). The present results are also consistent with findings by Giumetti et al. (2013), where email incivility in a simulated work environment was found to increase university students' negative affect levels. The psychological distress outcome reported by incivil email participants in the current study can be compared to the concept of technostress, which includes employees feeling that they are always on or connected to the work place.

Emails read by participants in the current study contained salient characteristics known to create technostress, such as the copying of emails to individuals unrelated to the email subject, an expectation for a quick response, and the lack of communication richness within the email message itself (Arnetz & Wiholm, 1997; Hair et al., 2007; Lim & Teo, 2009; Ragu-Nathan et al., 2008; Tarafdar et al., 2007; Wang, Shu, & Tu, 2008). It seems reasonable, therefore, to conclude that the characteristics related to technostress in the incivil email vignettes influenced the incivility experienced by the participants, and that they contributed to the stress level reported. The following comment from a participant in the current study suggests that technostress, and in particular the sense of always being "on," is currently a common stress factor within the work place. "...we need clear stop and start work times. I am always expecting to get an email late at night or on weekends. I feel I have to answer them, it's my job" (P11).

The substance of email itself also provides an element to interpret a communication as incivil. Specifically, the level of communication richness, or lack thereof, has been established as a problem related to email. The lack of context and

paralinguistic cues were often cited as key factors influencing the interpretation of an email message as incivil. The participants who reported higher levels of stress may have interpreted the emails in the study to be either suggestive of their inability to deal with the job demands or to be a challenge to their coping strategies. The inability to deal with job demands, and a challenge to one's coping strategies are two factors related to the stress appraisal process identified by Lazarus and Folkman (1984) as part of their Transtheoretical Model of Stress (TMS).

The results of the current study parallel the reasoning suggested by Porath and Pearson (2012) and Lim, Cortina, and Magley (2008), whereas employees experiencing incivility within the workplace also experience poorer levels of mental health and increased levels of stress. The following comment by a participant provides an on-the-job, experiential perspective of what an incivil email can provoke:

The good thing about e-mail is that it often does not contain emotion. The bad thing is that it often does not contain emotion. So as the receiver, you sometimes mistakenly assume that the message contains a hidden meaning or an attitude (P12).

A different stress response relates to Festinger's (1957) cognitive dissonance theory. In the following comment, the participant attempts to create a logical interpretation out of the apparent disconnect between what the participant knows about the email sender and what the email communication attempt contains:

...I tend to attribute any email correspondence that would be classified as incivil to weak writing skills and not as malicious intent by the correspondent. A small

number of "snide" wordings I ignore because I refuse to let [someone else] ruin my outlook on things...(P13).

This comment exemplifies the frustration experienced by the email recipient based on reading an incivil email exchange and sheds light on how some individuals make sense of and cope with the incivility. In this example, the recipient makes sense of the inconsistency between what is expected in a civil workplace email and what has actually occurred by providing an interpretation that keeps away the threat of incivility. Yet, the inconsistency, or dissonance between the interpretation and the incivility, may be great enough to still influence stress levels experienced, particularly if it occurs consistently, and for an extended period of time.

Counterproductive workplace behaviour was included as a psychological distress measure of incivil email effects as it is recognized as a deviant workplace behaviour occurring as a result of stress created by incivility (Lim & Cortina, 2005; Lim, Cortina, & Magley, 2008; Pearson et al., 2000, Porath & Pearson, 2012). This particular stress response of engaging in counterproductive workplace behaviour is often based on a belief that there is workplace or organizational injustice. This injustice belief is frequently experienced by incivility victims within the workplace (Blau & Andersson, 2005; Cortina & Magley, 2009; Fox et al., 2001; Ghosh et al., 2011; Spector & Fox, 2005). Consequently, counterproductive workplace behaviour often occurs as a form of retaliation for the injustice against the person or organization that committed the incivility (Sakurai & Jex, 2012; Spector & Fox, 2005).

In their description of spiraling incivility, Andersson and Pearson (1999) describe the stress response (i.e., counterproductive workplace behaviour) as originating

from a sense of unfairness or injustice. Individuals respond out of frustration based on the negative emotion created by the perceived injustice of being the victim of incivility.

According to Spector and Fox (2005), employees react with counterproductive workplace behaviour to the perceived sense of organizational injustice by directing negative acts against the organization or, if a sense of personal wrongdoing was felt, the negative acts are directed toward the co-worker they believed committed the act. In both instances, counterproductive work behaviour was recognized as a deviant workplace behaviour outcome occurring in response to the stress created by incivility (Lim & Cortina, 2005; Lim, Cortina, & Magley, 2008; Pearson et al., 2000; Porath & Pearson, 2012).

One explanation for the low report of counterproductive work behaviour in the current study may reside within the workplace and the job related characteristics of the sample used for this study.

Workplace influence. Within the workplaces used for the current study, counterproductive work behaviour may be attributed to more direct, in-person communication incidents of incivil behaviour rather than what is experienced through an electronic email exchange. Within the email environment, the interaction may be perceived as at arm's length, or less personal. The results of the current study support this premise as incivil email was not found to contribute to counterproductive work behaviour. This is an important concept to consider as the email environment becomes more prevalent as a workplace environment. The participants within the current study may not have identified the incivility within the email environment as an organizational

or personal injustice, as was reported by participants experiencing incivility within a physical environment (Andersson & Pearson, 1999; Pearson et al., 2000).

One possible workplace contributing factor to lower responses of counterproductive work behaviour is the level of union presence within this particular sample. The presence of a union may be a contributing factor towards preventing counterproductive work behaviour given that the essence of union activities is to support the “brother- and sister-hood,” to “watch out for each other,” and “to always have each other’s back.” Counterproductive work behaviour against employees would go against that ethic. Work experience and a union presence may provide a level of ethical oversight whereby deviance towards an employer or fellow employee is unacceptable. As well, it could also mean that counterproductive work behaviour was simply ignored by the participants or underreported.

Participant job-related characteristics. Further examination of the environmental workplace influence related to the counterproductive work behaviour construct pertains to the participants themselves. The design of the study controlled for participant characteristics through random assignment to groups. Additionally, assumptions of normality and sampling adequacy provided confidence that the population studied was representative of those in the workplaces sampled. However, the workplace as a research environment, offers many possibilities for explanations of results that are inconsistent with previous research findings and theoretical evidence. Individuals working within the present study’s workplace environments occupy an array of professions and the complexities of these positions contribute additional explanations of results.

The participants were employees of an industrially based workforce. Electrical utilities, engineering companies, and various city employees such as firefighters, policemen, and administrative staff provided a cross sample of work life ethics and experiences. The average age of the participants was 47, indicating that the participants had at the very least, 15 to 20 years of work experience. These individuals are experienced, educated/highly trained employees, although it is cautioned that a higher level of education does not necessarily translate into lower levels of incivil behaviours (Ferris, 2002).

Another possible explanation could be related to the use of a self-report measure for potential illegal acts. The CWB-C Scale asked if they “Purposely damaged a piece of equipment or property,” and “Stolen something belonging to your employer.” Employees may have chosen to not accurately report their behaviour in order to avoid potential identification as nasty or dishonest, even though the study did not collect identifying participant information.

It can be stated, therefore, that experiences of email incivility cause higher levels of psychological distress but not to the point that it precipitated counterproductive work behaviour. While inconsistent with existing research outcomes, arguably, it provides support for considering carefully the complexity of the workplace, and calls for the need to further investigate such topics within the email workplace environment.

Hypothesis 3 stated that individuals who received incivil emails they perceived as ambiguous would experience greater psychological distress than recipients of emails not perceived as ambiguous. Confirmation of this hypothesis is consistent with previous findings in the literature that link ambiguity as a key construct in the definition of incivil

behaviour (Andersson & Pearson, 1999). The current study's result is also consistent with previous research investigating the link between ambiguous email messages and stress (Andersson & Pearson, 1999; Brown, Duck, & Jimmieson, 2014). A unique contribution of this study's finding to the existing literature is that it bridges the gap between the definitions of incivil behaviour and incivil email by establishing a connection based on ambiguity as a key construct.

Analysis of participant responses on the DASS21 subscales of stress and anxiety as well as the CWB-C established significant differences existed in levels of stress and counterproductive work behaviour but not anxiety. This result is compelling as it confirms that perceived ambiguity within an incivil email affects the recipient in such a way that it increases the stress response and also, univariately, impacts workplace deviant behaviour responses. This evidence supports the work by Fox et al. (2001) who determined that ambiguity was a precipitating factor of counterproductive work behaviour. The lack of significance related to the anxiety measure, however, suggests that further study into the differences the participants experienced between their anxiety and stress responses to incivil email is warranted.

Previous research has demonstrated that additional workplace environment characteristics such as work load, work culture, pressure to respond to email, and/or email overload, influence the ambiguous email stress response (Black, 2006; Giumetti et al., 2013; Hair et al., 2007; Holmvall & Francis, 2007). These pressures, coupled with the message itself containing ambiguous information, result in very real emotional effects. The following quote from the present study suggests such an interaction: "some

people do not realize the context that their message is taken in, [the misunderstanding] results in feelings of confusion and/or anger” (P14).

Interestingly, it was also reported that some employees use email as a deliberate method of being ambiguous instead of communicating clearly in person. “...I think there may be times when people use email when they should discuss an issue face-to-face. It can be inefficient but some people will use it to 'document' an issue or to be ambiguous . . . (P15).

An outcome associated with a stress reaction to ambiguous messaging is rumination – an emotion-focused stress coping mechanism (Taylor & Sirois, 2012). Rumination would be analogous to replaying a movie scene or conversation over and over again. A comment was received which speaks to the ruminating effect ambiguous email can have on the recipient, “... It throws me off. I can't concentrate on the work at hand because I keep going back to the email that upset me. Depending on what it is, I could be upset about it all day” (P16).

An outcome of rumination is poor physical health, such as an increase of risk towards cardiovascular disease or autoimmune disorders (Anisman, 2014; Taylor & Sirois, 2012). Additionally, rumination has been linked to poor mental health, especially the onset or repetition of depression (Raes, 2010). Within the workplace, such negative health outcomes easily translate into increased sick time, avoidance of the workplace, increased costs for the employer due to absenteeism, and increase in workload for other employees. Effects on the employee experiencing the negative health effects are even more pronounced. Lost time at work, depending on the length of time taken off, may result in a reduction of earnings, as well as feelings of inadequacy or embarrassment,

depending on the attitude co-workers and employers have towards stress-related physical and mental illness.

Kelloway (2013) stated that oftentimes, we focus on stressors in the workplace to the exclusion of studying the workplace itself. With this in mind, the stress occurring within the present sample as a result of ambiguity within email should be put in the context of the organizational factors that enable such behaviour to occur in the first place. In addition to organizational injustice, factors such as work overload, poor leadership, unclear expectations, and lack of organizational support may be considered for future analysis. The following quotation from a participant's comments is relevant in this context; it refers to his interpretation of an incivil email received from a manager:

... I do receive ones ...(emails)... that are unclear or ambiguous, which I attribute to lack of sufficient detail due to that person being a senior manager and having a high workload. They can be short on time and keep their e-mails short and (they think) to the point. This can result in a lack of detail and therefore a lack of clarity...(P17).

This current research is important for supporting ambiguity as an integral concept in the definition of incivil email. Moreover, it provides evidence that a perceived incivil email has a similar effect on the recipient's level of psychological distress as that of incivil behaviour. As the effects of incivil behaviour have been closely studied and documented, it is well understood that the sense of feeling negative emotions is a key outcome of ambiguity (Andersson & Pearson, 1999; Porath & Pearson, 2009). Based on the present study, therefore, it is safe to say that a similar experience of incivility will result from being exposed to incivility in the email

environment, and will produce a similar effect. These effects, if placed into the context of the stress response model, are oftentimes manifested by the biopsychosocial spectrum of behaviours within the workplace. Depression, cognitive failures or problems, cardiovascular disease, suppressed immune function, substance abuse, family problems, and lifestyle issues are often responses to a perceived uncontrollable emotionally stressful situation. From an organizational perspective, absenteeism, presenteeism, poor or reduced job performance, poor safety behaviour, high turnover, low organizational commitment, and poor interpersonal relations are effects reported as a result of workplace stress, (Kelloway et al., 2011; Landry & Conte, 2013), of which incivil email is now a key variable.

Incivil Email Stress Model

This study proposed the development of an incivil email stress model using Lazarus and Folkman's (1984) Transtheoretical Model of Stress (TMS). Based on the research findings of the current study, the following model, and subsequent discussion is offered to demonstrate the stressor and subsequent appraisal process created by an incivil email.

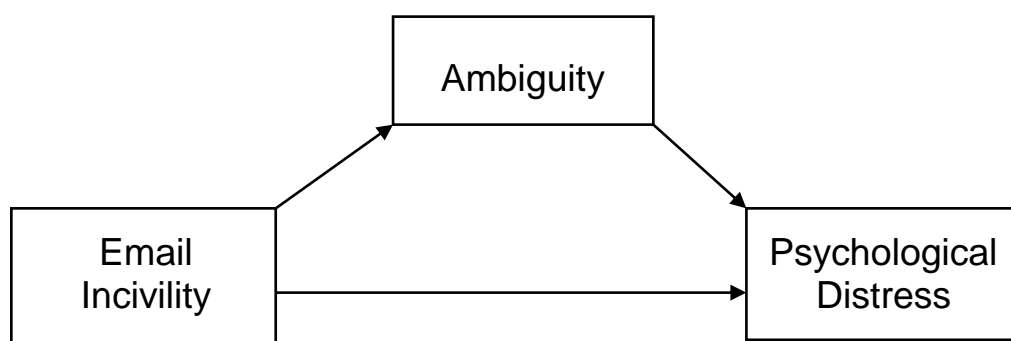


Figure 3. Incivil email stress model

Stressors. The present findings provide evidence that email, as a main form of workplace communication, as well as its perception of being incivil, represents a workplace stressor. This finding is consistent with existent literature (Barber & Santuzzi, 2015; Barley et al., 2011). Furthermore, results suggest that, to interpret, understand, and act upon this form of communication, it is important to understand that the “email-person-workplace interaction” represents a complex dynamic, and contains physical, interpersonal and environmental factors which must be interpreted, understood and acted upon, as required. Variables such as one’s biopsychosocial environment, personality, developmental level, knowledge of the person(s) involved in the email communication, knowledge of the information relevant to the communication, and cognitive ability all play a role in how the resulting interaction is perceived (Barley et al., 2011; Lazarus, 1966; 1999). Further contributions to the complexity of the interaction result from the email environment itself, such as:

- The environment is artificial/virtual; (albeit it is electronic, and we have normalized to it).
- Relationships created within this electronic environment are abstract in the sense that there is relative “instant” and ongoing interaction, even collaboration from a virtual workplace perspective, but the people involved in the communication relationship may never meet face-to-face.
- There is a lack of contextual cues providing ancillary information for interpretation of messages. The individuals involved have to infer meaning and try to make it work.
- Messages may be ambiguous.

Thus, within an email environment, it is important to contextualize the stressor appraisal process of incivil email using characteristics found within a workplace.

Appraisal process. Primary appraisal of an incivil email within the workplace is interpreted to be positive or neutral if the email recipient believes the email is of no personal consequence, a one-time event, or created in error. For example, one of the participants commented "... I tend to ignore incivil emails and just reply for a clarification. Assume someone is not having a good day" (P18).

A negative appraisal of the incivil email involves the realization that the email could potentially cause harm, a challenge, or a threat. Harm, for example, would be interpreted if the email contained information about the recipient that is personal or criticizing in nature and copied to others. An example from a participant is:

I did receive an email a while ago that made me feel as though I had done something wrong (unknowingly) and a few other people were cc'd on it...it turns out it wasn't me, but I didn't know that at the time (P19).

A challenging appraisal, within the incivil email model, potentially removes the negativity from the situation and offers an opportunity for personal gain, essentially enabling the situation to be turned around for the recipient, or made less negative. This is demonstrated by the following participant comment: "I received emails all in capital letters. I did ask the person, as it wasn't typical of them; she just didn't remove caps lock and didn't realize it meant "yelling"" (P21). By asking for clarification, the participant's potential, negative perception of a communication was altered.

Threat based appraisals create the realization that the recipient may have potential conflict associated with the email, or the sender, and in the workplace, may

represent the continuation of an incivility exchange. Andersson and Pearson (1999) refer to this continuation as spiralling incivil behaviour. Within a workplace, responding in kind to an incivil email may be a way of coping with the ongoing situation of email incivility. However, this may be an action potentially used to restrict advancement of an employee if the full details of a particular situation are not known to decision makers. A participant's quote serves as an example of this:

Depending upon the day, I've received forms of incivility and I've demonstrated incivility. Maybe receiving the incivility or past experiences will make me prone to being incivil or possibly my incivilities have made other people incivil to me at times (P20).

Importantly, the appraisal of an incivil email as a threat leads the employee into a secondary appraisal process whereby coping resources are evaluated. The ensuing secondary appraisal considers whether anything can control the threat. The controls or coping mechanisms for a negative incivil email appraisal are based on whether the workplace is supportive of the need to remove the stressor (i.e., the incivil email). Workplace support, in this situation, would consist of organizational or management support for the email recipient by way of addressing the situation, or allowing the situation to be addressed, co-worker support and/or social support, enforced policy for dealing with email incivility, and possible training opportunities for all email users. This course of action also includes the recognition that not all email incivility is deliberate and may be a result of lack of awareness or poor communication abilities.

The secondary appraisal is more complex and enables the incivil email recipient to examine the situation from the perspective of what can be done with what resources

(psychological and/or physical) the individual possesses to effectively manage the situation. Secondary appraisals also involve a level of confidence in one's abilities to overcome the challenges and threats of the situation and turn them into opportunities for growth. In this regard, Lazarus (1999) refers to Bandura's (1994) concept of self-efficacy as necessary to understand from a reasoning point of view why some individuals are overcome by feelings of inadequacy related to the situation. Both primary and secondary appraisals are based on the individual applying cognitive processes of judgment, experience, and knowledge of the situation to determine if there is significance to the occurrence or if it can be reduced in its potential impact.

A reappraisal of the situation occurs to include updated information relevant to the situation, thereby changing or modifying the existing appraisal of the situation based on the new information. Outcomes of the appraisals result in emotional impacts, such as the negative emotions of anger, anxiety, depression, sadness, shame, guilt, or fright as well as positive emotions such as happiness, pride and love (Lazarus, 1999). How one determines if a situation or interaction is stressful depends on one's appraisal outcomes, level of self-efficacy, and ability to modify a coping strategy to fit the changing elements of a situation. The resulting stress will be either positive or negative. In the current study, perceived email incivility resulted in increased levels of psychological distress for the recipients of incivil emails. The following participant comment provides insight into how secondary appraisal could be understood within the workplace:

When I get these emails, I take it very hard, it's like feeling like I'm not part of the team, like I'm not good enough for them, and this has made me have to take

sick leave over anxiety. I do have to work real hard to avoid thinking and feeling this way (P22).

In this instance, the individual undergoing the secondary appraisal process does not appear to have the coping resources required to overcome the harmful feelings of inadequacy. As well, there perhaps is not a perceived sense of support, either organizational or from co-workers, which would assist in overcoming these negative feelings. The inability to cope, or the belief that the stressors from the incivil email are too threatening, is suggested to result in heightened levels of psychological distress.

A different outcome, perhaps due to a heightened sense of self-efficacy, or control over the situation, is exemplified by the participant comment that follows:

Normally the incivility stems from the sender being unable to resolve their own issue and this results in finding someone else to blame or to share the blame with. As curt e-mails do occur from lack of explanation, sometimes the message is clear but too short for the reader to fully understand the situation being discussed; this results in a misunderstanding or a message being taken the wrong way. I have found that re-reading the message before sending has worked great (P23).

According to Lazarus and Folkman (1984), appraisal is an act occurring any time during which individuals sense that they have exceeded their resources for the possible adaptation to an event. The outcome of that appraisal process forms the person's decision regarding how to cope with the situation. With reference to the stressor of ambiguity within an email, from a cognitive perspective, ambiguity creates temporary confusion as the recipient attempts to interpret the semantic meaning of the words used,

oftentimes without context. If the situation involves emotion or a level of anxiety, such as what could occur during a flurry of email exchanges, Blanchette and Richards (2003) suggest the interpretation of the meaning is impacted by the individuals' emotional state, particularly a high anxiety level, thus preventing a clear understanding of the information.

The mediating effect of ambiguity positions it as an additional stressor contributing to the appraisal process. As a stressor, ambiguity is considered to elicit an emotional response (Lazarus & Folkman, 1984). In the incivil email stress model paradigm, the email itself may be excused, but if it were also copied to a wide audience for no apparent reason, the internal questioning associated with that action may impact the appraisal to be negative with high levels of harm and threat associated with it.

According to Eley et al. (2008) and Eubank, Collins, and Smith (2002), individuals with anxiety tendencies will interpret ambiguous information as threatening or from a negative context. This cognitive bias towards imposing a threatening or negative outcome on the interpretation of ambiguous information is well established in the study of cognitive psychology, by the theoretical work of Beck (1976) and later supported by MacLeod and Cohen (1993). Workplace email exchanges containing little contextual information and ambiguity may in effect contribute to a threatening appraisal of the information exchange.

In the current study, anxiety levels were not significantly different between the incivil and civil email participants. Interestingly, a brief comment received by a participant succinctly identifies the sense of anxiety behind the receipt of incivil emails

and the inability to cope effectively with them. “[These emails] make me sad and feel unworthy” (P24).

Limitations

As with any research, limitations exist. A key limitation relates to a sense of suspicion within the participant sample. A comment received from a participant referred to the belief that the true objective of the study was something other than what was advertised. This comment suggests that at best, participants may have had some questions regarding the real purpose of the study. Additionally, the fear of a breach in confidentiality of the responses was mentioned as a barrier to the completion of all the measures. During the original data screening, a number of incomplete survey responses were found, thus confirming that some employees did not complete the questionnaires for all the measures, which resulted in them being excluded from the analysis. Whether this was the result of a suspicious attitude, or due to other factors, is unknown.

Industrial organizational psychology research has identified that suspicious attitudes are often found in workplaces where an employee/organizational trust factor has been eroded. This can occur through events such as employee layoffs, restructuring of jobs or the organization, reassignment of employees to other jobs or vice versa, or the perception of a lack of organizational support (Aamodt, 2013; Harrington, 2013; Neuman & Baron, 1998). This attitudinal factor may be problematic if it hinders employees from allowing their voice to be heard in environments where incivility exists within their main form of workplace communication. In this regard it is email.

It is suggested that future research include a demographic questionnaire related to workplace characteristics for each participant. This information will enhance the

interpretation of behaviours such as failure to complete the study, a questionnaire, or the provision of neutral responses to controversial measures, such as that found in the CWB-C. With reference to the current study, however, the experimental nature of the design controlled for participant characteristics, therefore providing a level of confidence in the sample representation.

A second limitation rests with the CWB-C measure. The current study did not support previous results where incivil behaviour predicted counterproductive work behaviour (Cortina et al., 2001; Ones, 2002; Pearson & Porath, 2005; Porath & Pearson, 2010). One interpretation for this finding may be that questions on the CWB-C reflect deviant behaviours suggestive of a physical workplace (e.g., “Purposely damaged a piece of equipment or property”). Posing the questions to reflect deviant behaviours suggestive of an electronic work environment may enable the measurement of counterproductive work behaviour to be more relevant to the electronic environment being studied.

Lastly, organizational demographics were not gathered in relation to existing respectful workplace policies, employee ethics policies, harassment/bullying policies, or reporting procedures for failure to follow workplace policies. Such information would have provided a picture of the overall organizational health and corporate commitment to a healthy employee experience within the workplace. Additionally, it would enable further examination of the concept of organizational justice and employee adherence to corporate policy.

Directions for Future Research

An important area to consider for future investigation is to conduct analyses of the organizational versus employee impacts of incivil email. Although this comparison was not a focus of the current study, it is suggested as future research in order to investigate whether email incivility has theoretical and/or financial implications for perceived organizational in addition to personal injustice.

To further the findings of this study, future research should examine the effectiveness of developing and implementing email policies within the workplace that addresses issues related to incivil email. Using an applied psychology study approach, and working directly with organizations to conduct baseline research, and subsequently develop and implement an email policy, it is hoped a healthier workplace should emerge. This approach also would provide an ongoing opportunity to proactively identify workplace stress sources such as incivil email, and establish an industrial database for other researchers to access for similar type research. Additionally, by enabling organizational leaders to measure the baseline of their current employee psychological health status, and examine their relative levels of workplace incivil email behaviours, not only could a continuation of the current research be pursued, but organizations could use this knowledge preventatively in the development of appropriate programs. Knowing the psychological health status of their organization would invariably reduce their cost on the long run by reducing absenteeism and presenteeism.

A second area of future research pertains to the development of training and/or educational programs for employees and organizational leaders based on the current study's outcomes. Porath (2015) has recommended training on the topic of incivility as a

way to reduce its occurrence in the workplace. Within the context of the current study, a similar focus but including incivil email is suggested. This training should include a comprehensive curriculum, including topics such as: the acquisition of email communication skills, what email incivility is, the effects of incivility on the recipient of the incivil email, the effects of email incivility organizationally, and how to report an incivil act.

Critical to this curriculum will be leadership training for facilitating employee trust. The application of Deci and Ryan's (1985) concept of relatedness is proposed to be most applicable in the development of employee and employer trust with respect to incivility in email communication. Research by Porath (2015) supports this proposal through the endorsement of employee engagement exercises and training for managers. This is also based on a current trend in workplaces, such as in the utility or nuclear industry, to enhance the concept of connectedness or engagement, which is a similar term relative to the concept of relatedness. If a manager or employer is encouraged to visit employees in their own workspace and vice versa, an understanding of the various work environments complete with challenges and work pressures can be gained. Relatedness encourages both groups to develop a common sense of purpose, thus creating a level of appreciation, a sense of trust, and a healthier work relationship.

The literature is rife with research on incivil behaviour and email; however the ecological validity of this research has not been determined as it has mostly been carried out in a simulated workplace environment (Barley et al., 2011; Giumetti et al., 2012; Hershcovis, 2011; Taylor et al., 2008). Of the research conducted within the actual

workplace, simulation of the hypothesized effect has often been utilized (Brown et al., 2014).

It is necessary that future research put theory into practice and conduct workplace- focused research within the workplace itself. In addition, the research would benefit from integrating existing workplace practices and procedures. For example, most workplaces use a standard email system. Using the existing workplace email system to conduct email research removes the simulation aspect from a study and facilitates extrapolation of the results to other similar type of workplaces. For this to occur, issues related to email security, confidentiality, and ethics must be carefully monitored, applying the highest standards in the field. Such care is necessary so that participants' experience of research and researchers would be positive.

A final recommendation would be to continue to use the IES scale to assess the impact of incivil email and ambiguity on email recipients. Information acquired through its application would benefit organizations in their understanding of email incivility levels and development of incivil email policies.

Conclusions

The reported study demonstrates that incivility within email is associated with psychological distress for those who are on the receiving end of such emails. It also demonstrates that ambiguity in incivil emails plays a significant role in the experience of psychological distress. Within an email environment however, a tendency towards counter productive workplace behaviour does not occur.

The present study makes several contributions to the existing literature. First, it provided evidence that ambiguity mediates the relationship between incivil email and

psychological distress. By providing that evidence, ambiguity is now a confirmed characteristic of the definition of incivil email, similar to its relationship to incivil behaviours. Second, the results of the study expand the current literature findings to illustrate that incivil email causes recipients to experience increased levels of psychological distress. Within an email environment, however, there is not a tendency towards counter productive work behaviours as a result of being exposed to incivility in email communication. A third contribution refers to the finding that incivil email perceived as ambiguous creates enhanced levels of psychological distress. Fourth, the Incivil Email Stress model, grounded in Lazarus and Folkman's (1984) TMS, is suggested to further our understanding of how the appraisal process of incivil email results in a stress outcome. Lastly, to the best of my knowledge, no study is known to have empirically tested the effects of incivil email within an industrial workplace setting. The findings of the current study also contribute to industrial/organizational psychology literature by demonstrating workplace stressors exist within the communication technologies currently embraced by organizations.

A richer understanding of employee experiences with workplace incivility was gained through the combined qualitative and quantitative approach used in the current study. The combined methodology enhanced the research findings by shedding light on the meaning of the statistical analyses with insights provided by the experiential data that were collected and examined. Such experiential data add to the current body of incivil email research by offering employees' views on the personal impacts of incivil email in the workplace.

Previous research has established the widespread effects of both incivil behaviour and incivil email ranging from heightened levels of stress and anxiety all the way through to leaving one's place of employment (Cortina & Magley, 2009; Francis et al., 2015; Giumetti et al., 2013; Martin & Hine, 2005). The participant comments reviewed within this current body of research have not only paralleled previous research outcomes, but have provided a sense of depth and increased understanding of the emotional effect workplace incivility and email incivility has on targets. The following comment exemplifies particularly well the emotional impact of both personal and email incivility:

Incivility is not only restricted to email in my sense because it is [prevalent] in how someone is treated overall, whether it is through email or in person. I have experienced some very uncivil treatments such as being ignored totally, looking up and seeing someone speaking to everyone in the meeting except me; it makes me feel like my existence is not important. Often they do not [even] consider my input but feel others' is important; it gives me a sense that I am waste [garbage] and I don't have a right to participate. I am not sure these are considered uncivil or if it is discrimination but overall, it all ends up hurting someone's feelings deeply. There are times I felt like killing myself because of the way I was treated at work. Even today, some days after [I attended] a meeting or because of an email I received, I go home at the end of the day with so much stress and sense of rejection. But in a society/community where rejection and discrimination is constant, I don't know if I am getting used to it or becoming stronger to face it? But in my opinion no one deserves to be treated like this. It is an unfortunate

practice and I'm not sure if ever there will be any positive front [view] to it (P25).

A comment such as this provides insight into the sense of despair email incivility helps create, especially when experienced with incivil behaviours. A final comment, summing up the experience of receiving incivil emails is simply that, "It hurts" (P26). The continuation of research into email incivility is needed in order to provide a healthier, safer place of work where comments such as the previous two may be utterances of the past.

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Appendix A

Demographic Questions

1. What is your gender? male female
2. What is your age?
3. In the last year, how many days of work have you missed due to illness?
4. In the last year, how many days of work have you missed related to the following options other than time off in lieu of overtime, family responsibilities, statutory holidays or vacation:
 - *Illness*
 - *Avoidance of another person within the work environment*
 - *Overwhelmed with work*
 - *Stress*
 - *Anxious*
 - *Depressed*
 - *Too much work*
 - *Other (describe)*
5. What is your occupational status?
 - student (full or part time)
 - full time employee
 - part time employee
 - manager/supervisor
 - director or above
 - apprentice

6. On average, how many emails do you receive a day?
7. Do you text message on a cell phone?
8. How much time do you spend texting/instant messaging per hour?
9. What device do you mainly use to send email?
 - computer
 - tablet/iPad
 - smart phone (Blackberry, iPhone, Android, etc.)
 - other
10. At work, I have received an ambiguous email: Yes No

Appendix B

DASS21

Please read each statement and circle a number 0, 1, 2 or 3, which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of time
- 3 Applied to me very much, or most of the time

1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (e.g., in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3

18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

Appendix C

Incivil Email Scale

Email is a common method of communication. Its electronic nature makes it fast and convenient to use. Because of its appeal of an instant reply, quick responses often result. Many of these quick responses contain unintentional typing and spelling errors. Some emails however, are deliberate in their use of errors and terse replies resulting in an ambiguous message that can be interpreted many ways. This often leaves the recipient questioning the intent of the email. These emails are considered to be incivil.

Incivil email is defined as an email that implies rudeness, disrespect, and disregard for the recipient in a manner that is against socially acceptable norms for communication. Its lack of clear aggressiveness makes its interpretation confusing, ambiguous and questionable from the recipient's perspective.

Below are a number of statements that relate to emails people commonly send each other. Please indicate how often you have received emails like that in this study. Respond by using the frequency rating scale to the right of each statement by clicking on the response that best describes your emails. Indicate whether you have received such emails: Never (1), Occasionally (2), Often (3), Frequently (4), Constantly (5) or No Response (6).

1. The email was flagged as important but upon reading it, I found it was not.
2. The email had an improper introduction (either did not or improperly addressed me, including the omission of professional credentials when they were appropriate).

3. There was an inappropriate absence of a closing remark (e.g., Thank you, Sincerely, Regards) that seemed deliberate.
4. There was an obvious excessive presence or absence of punctuation (Poor overall syntax).
5. The email was composed entirely in upper case.
6. There was excessive use of emoticons (:-, :s, :b) or acronyms (e.g., BTW, JK, BRB).
7. There was a lack of context that created confusion.
8. The email created ambiguity and required me to respond asking for clarification.
9. The email used slang in a context that required formality.
10. There were excessive amounts of irrelevant information present.
11. I am (was) continuously being sent emails from the same sender even though I have (had) asked for it to stop.
12. The tone of the email was inappropriately sarcastic.
13. The tone of the email was rude.
14. The email used jargon out of context, which created confusion.
15. The email used slang to the point it caused confusion.
16. My email requests for information or a response are/were unanswered.
17. An e-mail addressed to me was copied (cc'd) to other individuals not related to the message.
18. I received a discourteous email.
19. I received an email that was incivil.

Appendix D

Counterproductive Work Behavior Checklist (CWB-C) (32-item)

How often have you done each of the following things on your present job?	Never	Once or twice	Once or twice per month	Once or twice per week	Every day
1. Purposely wasted your employer's materials/supplies	1	2	3	4	5
2. Purposely did your work incorrectly	1	2	3	4	5
3. Came to work late without permission	1	2	3	4	5
4. Stayed home from work and said you were sick when you weren't	1	2	3	4	5
5. Purposely damaged a piece of equipment or property	1	2	3	4	5
6. Purposely dirtied or littered your place of work	1	2	3	4	5
7. Stolen something belonging to your employer	1	2	3	4	5
8. Started or continued a damaging or harmful rumor at work	1	2	3	4	5
9. Been nasty or rude to a client or customer	1	2	3	4	5
10. Purposely worked slowly when things needed to get done	1	2	3	4	5
11. Taken a longer break than you were allowed to take	1	2	3	4	5
12. Purposely failed to follow instructions	1	2	3	4	5
13. Left work earlier than you were allowed to	1	2	3	4	5
14. Insulted someone about their job performance	1	2	3	4	5
15. Made fun of someone's personal life	1	2	3	4	5
16. Took supplies or tools home without permission	1	2	3	4	5
17. Put in to be paid for more hours than you worked	1	2	3	4	5
18. Took money from your employer without permission	1	2	3	4	5
19. Ignored someone at work	1	2	3	4	5
20. Blamed someone at work for error you made	1	2	3	4	5
21. Started an argument with someone at work	1	2	3	4	5
22. Stole something belonging to someone at work	1	2	3	4	5
23. Verbally abused someone at work	1	2	3	4	5
24. Made an obscene gesture (the finger) to someone at work	1	2	3	4	5
25. Threatened someone at work with violence	1	2	3	4	5
26. Threatened someone at work, but not physically	1	2	3	4	5
27. Said something obscene to someone at work to make them feel bad	1	2	3	4	5
28. Did something to make someone at work look bad	1	2	3	4	5
29. Played a mean prank to embarrass someone at work	1	2	3	4	5

30. Looked at someone at work's private mail/property without permission	1	2	3	4	5
31. Hit or pushed someone at work	1	2	3	4	5
32. Insulted or made fun of someone at work	1	2	3	4	5

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Appendix E

Emails

Civil Email #1

From: PsycOrg

Sent: Monday, Feb. 1, 2014

To: Survey Participants

Subject: Research Survey

Hi,

This email is to provide the assistance you need to complete this survey. Please read each email carefully and answer any question that may appear at the bottom of each email. After answering the question, please forward the email to:

sap09@unb.ca

The email address is a research email and will not collect any personal information. Thank you!

Shelley

P.S .If you could forward this email to sap09@unb.ca with one of the following buttons clicked, I would appreciate it.

I have read the instructions and understand them.

I have read the instructions and do not understand them.

Incivil Email #1

From: PsycOrg
Sent: Monday, Feb. 1, 2014
To: Survey Participants
Subject: Research Survey

Hi,

This email is to provide you with the assistance you need to complete this survey correctly. PLEASE DO NOT ANSWER MORE THAN ONCE TO EACH QUESTION! And READ the instructions closely in order to understand exactly what you are being asked to do. Thank you!!!

When you are filling out the demographics, could you please make sure you state your age??? Then, when you have finished reading this email (yes this one, not after you have finished all of them), could you please send an email to sap09@unb.ca so that the researcher can collate the number of responses against the number of participants who have signed up? You don't have to leave your name; you can just say you have completed this email request.

The email address is a research email and will not collect any personal information. Thank you!

The researcher, SDP

- I have read the instructions and understand them.
- I have read the instructions and do not understand them.

Civil Email #2

From: McGarry, Brenda

Sent: Monday, Feb. 1, 2014

To: Smith, Leslie

Subject: Newsletter

Importance: High

Hello Leslie,

Regarding the biweekly department newsletter, I want you to be aware that there is a change required for the font type used. I will do my best to get it to you by 1:00pm.

Regards,

Brenda

Tom

Dear Participant:

Please acknowledge if you have ever worked on a newsletter and forward this email to sap09@unb.ca, a second research lab mailbox. Thank you.

I have.

I have not.

Incivil Email #2

From: McGarry, Brenda
Sent: Monday, Feb. 1, 2014
To: Smith, Leslie
Cc: Mann, Gary
Subject: Newsletter
Importance: High

Leslie,

Regarding the biweekly department newsletter, **YOU** used the wrong font type.

Now I have to get it fixed and out by 1:00pm.

Brenda

Dear Participant:

Please acknowledge if you have ever worked on a newsletter and forward this email to sap09@unb.ca, a second research lab mailbox. Thank you.

I have.

I have not.

Civil Email #3

From: Jones, Sara
Sent: Monday, Feb. 1, 2014
To: Smith, Leslie
Subject: Meeting

Hi Leslie,

Sorry to hear you can't make the meeting today. The rest of us can make it so we will go ahead without you. If there is any comment or question regarding the work you are currently doing, I will try to present the information on your behalf. Don't worry, if a decision is to be made, I will ask for it to be deferred until you get back. I will make sure you get all of the minutes and can go over them with you if you like. Let me know when your back. See you soon,
Sara

Dear Participant:

Please acknowledge if you have ever missed a meeting before and forward this email to sap09@unb.ca, a second research lab mailbox. Thank you.

I have.

I have not.

Incivil Email #3

From: Jones, Sara

Sent: Monday, Feb. 1, 2014

To: Smith, Leslie

Subject:

Leslie,

Too bad you have a conflict with the meeting today. Others will be able to make it so we will go ahead without you. I will talk to Janis immediately about a replacement.

Sara

Dear Participant:

Please acknowledge if you have ever missed a meeting before and forward this email to sap09@unb.ca, a second research lab mailbox. Thank you.

I have.

I have not.

Civil Email #4

From: McVair, Dennis

Sent: Monday, Feb. 1, 2014

To: Smith, Leslie

Subject: Requirements Meeting

Hi Leslie,

I noticed at our meeting you were having coffee from the cafeteria using one of their Styrofoam cups. In case you weren't aware, we have been trying to have everyone use a travel or recyclable mug as a way to do our bit for saving the environment. I know remembering to bring a mug is a hard habit to get into but as an incentive, I'm attaching a coupon for one of our company travel mugs. Please enjoy it and I hope it works for you. By the way, a refill in this large mug is cheaper than what they charge for one of their regular coffees in their foam cups!

See you at our next meeting.

Regards,

Dennis

Dear Participant:

Please review the email and determine if there is/are spelling error(s). Forward your response and this email to sap09@unb.ca, a second research lab mailbox.

Thank you.

- Yes there are spelling errors
- No, there are not any spelling errors.

Incivil Email #4

From: McVair, Dennis

Sent: Monday, Feb. 1, 2014

To: Smith, Leslie

Subject: Requirements Meeting

Leslie,

I noticed at our meeting you were having coffee from the cafeteria using one of their Styrofoam cups. As you are *obviously* unaware, we have been trying to have everyone use a travel or recyclable mug as a way to do our bit for saving the environment. If you are unable to get a travel mug, we have one you can use. Let me know if you want it. It is important to set a good example, which is why everyone else in the meeting had one. Besides, the refills are cheaper than buying a new coffee every time. I'll lookout for it at our next meeting ☺!

Regards,

Dennis

Dear Participant:

Please review the email and determine if there is/are spelling error(s). Forward your response and this email to sap09@unb.ca, a second research lab mailbox.

Thank you.

- Yes there are spelling errors
- No, there are not any spelling errors.

Civil Email #5

From: Cortes, Paul
Sent: Monday, Feb. 1, 2014
To: Smith, Leslie
Subject: None
Importance: Low

Dear Leslie

That was a good communication attempt. I suggest that instead of putting in a reference to the information I requested, why not include it directly in the e-mail? Especially since the original message stated more information was coming.

In that manner, the original intent is kept and you don't have to do extra work.

Thanks.

Regards,

Paul

Dear Participant:

Please review the email and determine if there is/are spelling errors. Forward your response and this email to sap09@unb.ca, a second research lab mailbox.

Thank you.

- Yes there are spelling errors
- No, there are not any spelling errors.

Incivil Email #5

From: Cortes, Paul
Sent: Monday, Feb. 1, 2014
To: Smith, Leslie
Subject: None
Importance: High

Dear leslie

That was a singularly useless communication attempt. Instead of putting in a reference to the information I requested, why would you have not simply included it in the e-mail??????????? Especialy since the original message, said that more information was coming! Was there not?????????????

P

Dear Participant:

Please review the email and determine if there is/are spelling errors. Forward your response and this email to sap09@unb.ca, a second research lab mailbox.

Thank you.

- Yes there are spelling errors
- No, there are not any spelling errors.

Civil Email #6

From: Smith, Thomas
Sent: Monday, Feb. 1, 2014
To: Smith, Leslie
Subject: Conference

Hello Leslie,

I noticed you were applying for travel funds to the upcoming conference on healthy lifestyles. For your information, a group of us will be travelling together from the office the afternoon before the conference starts. You are welcome to join us if you like. Please let me know by tomorrow afternoon and I will send you the details. I look forward to your response.

Tom

Dear Participant:

Please review the email and determine what the conference topic is. Forward your response and this email to sap09@unb.ca, a second research lab mailbox.

Thank you.

The conference topic is:

Incivil Email #6

From: Smith, Thomas
Sent: Monday, Feb. 1, 2014
To: Smith, Leslie
Subject: Conference

Leslie,

I noticed you were applying for travel funds to the upcoming conference on healthy lifestyles. Instead of wasting travel funds someone else could benefit from, you should be going with the rest of us in the company van. We are leaving from the office the afternoon before the conference starts. Get there as early as you can because we don't want to wait on anyone.

Tom

Dear Participant:

Please review the email and determine what the conference topic is. Forward your response and this email to sap09@unb.ca, a second research lab mailbox.

Thank you.

The conference topic is:

Civil Email #7

From: Anders, Bonnie
Sent: Monday, Feb. 1, 2014
To: Smith, Leslie
Subject: Outcome

Hello Leslie,

I hope you were ok with the outcome of today's meeting. I realize the decision was not to your liking but unfortunately that happens sometimes. I would like to meet with you to go over the details of the decision. Please let me know what time works best for you.

Regards,

Bonnie

Dear Participant:

Please review the email and determine how many times the word **you** occurs.

Forward your response and this email to sap09@unb.ca, a second research lab mailbox. Thank you.

You occurs:

Incivil Email #7

From: Anders, Bonnie

Sent: Monday, Feb. 1, 2014

To: Smith, Leslie

LESLIE,

IF YOU COULD MEET WITH ME AT 3 TODAY IN THE LOUNGE WE
WILL STRAIGHTEN OUT ANY MISUNDERSTANDING YOU HAVE
REGARDING THE OUTCOME OF TODAY'S MEETING. I'LL SEE YOU
THEN.

B

Dear Participant:

Please review the email and determine how many times the word **you** occurs.

Forward your response and this email to sap09@unb.ca, a second research lab mailbox. Thank you.

You occurs:

Civil Email #8

From: Jenkins, Barbara

Sent: Monday, Feb. 1, 2014

To: Smith, Leslie

CC: Moore, Charles; Moser, Christine; Bunting, Tamara; Taylor, Grant

Subject: Requirements Meeting

Leslie,

I would like to ask if you could clarify for me the exact information you need. I don't think the information I gave you in today's meeting was what you were expecting so if you could provide me with the details of what you need, perhaps I can be more specific. Thank you and I look forward to hearing from you.

Thanks.

Barb

Dear Participant:

Please review the email and determine how many people this message is copied to. Forward your response and this email to sap09@unb.ca, a second research lab mailbox. Thank you.

This message is copied to:

Incivil Email #8

From: Jenkins, Barbara

Sent: Monday, Feb. 1, 2014

To: Smith, Leslie

CC: Moore, Charles; Moser, Christine; Bunting, Tamara; Taylor, Grant

Subject: Requirements Meeting

Leslie,

What do you want? In today's meeting, you asked me for a time when you would get information from me. When I said a time, you came back with another time. Instead of setting me up for failure by not liking what I first told you, just be specific and tell me what you expect. I don't want to meet with you on this, just tell me what you want.

B

Dear Participant:

Please review the email and determine how many people this message is copied to. Forward your response and this email to sap09@unb.ca, a second research lab mailbox. Thank you.

This message is copied to:

Civil Email #9

From: Minton, Charles

Sent: Monday, Feb. 1, 2014

To: Smith, Leslie

cc: Krow, Nick; Brown, Edgar; Smith, Melanie

Subject: Tonight

Hi Leslie,

Lookng fwd 2 tnite! Will meet u @ 8. Have dinnr reservatns at Luigies! Will b gr8!

Chuck

Dear Participant:

Please review the email and determine how many formal words are in the message. Forward your response and this email to sap09@unb.ca, a second research lab mailbox. Thank you.

There are:

Incivil Email #9

From: Minton, Charles

Sent: Monday, Feb. 1, 2014

To: Smith, Leslie

cc: Krow, Nick; Brown, Edgar; Smith, Melanie

Subject: Tonight

meet @ 8 Luigies! Don't b late!

C

Dear Participant:

Please review the email and determine how many formal words are in the message. Forward your response and this email to sap09@unb.ca, a second research lab mailbox. Thank you.

There are:

Civil Email #10

From: Dalton, Anna

Sent: Monday, Feb. 1, 2014

To: Smith, Leslie

Subject: Parking

Hello Leslie,

It has come to my attention that you are having difficulty finding a parking spot. . I am saying that because for the past 3 mornings, your vehicle has been in my spot. I realize it is very difficult to find a good place to park. I also realize I have been away the past week and I do fully expect someone else to use my spot when I am gone. After all, it is in a good location, which is why I like it so much myself. . Having said that, if you could please not park there tomorrow, I would appreciate it.

For your information however, I will be away the 10-15 of this month, please feel free to use it then.. Thank you.

Anna

Dear Participant:

Please review the email and determine how many extra periods are in the message. Forward your response and this email to sap09@unb.ca, a second research lab mailbox. Thank you.

There are:

Incivil Email #10

From: Dalton, Anna

Sent: Monday, Feb.1, 2010

To: Smith, Leslie

Subject: Parking

Hey Leslie,

You are obviously having difficulty finding a parking spot. I am saying that because for the past 3 mornings, your vehicle has been in my spot!!!!... If you could possibly refrain from using MY parking spot, it would be more than appreciated by not only myself, but also my child who I have to make walk across the busy street to get to her daycare!..... **You can also drop off my parking meter refund you owe me!**

Thank you.....

Anna

Dear Participant:

Please review the email and determine how many extra periods are in the message. Forward your response and this email to sap09@unb.ca, a second research lab mailbox. Thank you.

There are:

Appendix F

Email Ranking Request

From: Shelley Delano Parker

Date: 12/8/2016

Re: Peer review ranking of emails

Introduction:

With the use of email as a predominant business communication tool, email incivility is an area undergoing current scrutiny. An incivil email is an email that implies rudeness, disrespect, and disregard for the recipient in a manner that is contrary to socially acceptable norms for communication. An incivil email also lacks any clear aggressiveness, which may make its interpretation confusing, ambiguous and questionable from the recipient's perspective. This often leaves the recipient questioning the intent of the email.

To address questions related to possible effects of incivil emails on the recipient, the following request is part of a larger research initiative examining email incivility. This request asks you if you could read over the following emails. They are simulating what a new employee in a business office environment would potentially receive throughout the duration of their employment.

These emails are a mix of civil, or socially acceptable emails and incivil emails, or emails which cross the line between being nice or acceptable and being rude or discourteous and unacceptable.

What do I do?

The emails are distinguished by the category of civil or incivil and this is found at the top of the email. They are in no particular order. You are asked to rank the emails according to how civil (or uncivil) they are by numbering them from 1 – 12. Number 1 for civil means it is the most civil email with 12 being the least civil. For the incivil emails, 1 means it is the most uncivil or discourteous email with 12 meaning it is the least incivil.

You can number each email directly and then save your changes. When you are finished, if you could email the ranked emails back to me, I would appreciate it.

This email ranking is part of a University of New Brunswick Doctoral Dissertation research project. Your participation in this research activity is extremely valuable and sincerely appreciated. If you would like additional information on the research, please email me with your request and I will forward to you the relevant information.

If at any time this exercise makes you uncomfortable, you can stop. If you would like to discuss the emails with me, please contact me at the enclosed email address. Your participation is sincerely appreciated. Thank you.

Regards,

Shelley Delano Parker, Ph.D.(c), Ind. Psyc.

NB Power Corporate Health & Safety

Confidential

Appendix G

Organization Invitation

University of New Brunswick	PO Box 4400 Fredericton, NB Canada E3B 5A3	Tel 506 453-4707 Fax 506 447-3063 www.unb.ca/psychology	Department of Psychology
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To:

Re: Incivil Email Study

In support of fulfilling requirements towards my Ph.D. degree in Experimental & Applied Psychology at the University of New Brunswick, I am currently researching the effects of incivil email on recipients of the emails. The effects I am looking at relate to anxiety, stress and a general measure of negative affect. These effects all translate into impacting the work environment, usually from a negative perspective.

To accomplish this research, I am asking if I may invite employees of your organization to participate in this research. For this to be an effective measure, I will need a minimum of 100 participants, with the more participants, the better the results. I have designed the research as a web based survey for participants to access and complete. The survey is on the UNB secure network and will be offered to participants via an email link. The email is sent from a UNB Psychology research lab mailbox and is not used to collect personal or identifying information from any participant.

Participants will be asked to respond to the email request and will be sent a research URL to access. The study is expected to take a maximum of 30 minutes to

complete. Participants can choose to quit at any time and are under no obligation to participate.

This research study is approved by the UNB Review Ethics Board and is on file as REB 2015-008 as well as the UNB Psychology Department Ethics Committee.

I anticipate conducting the study within the next 2 weeks. I appreciate the opportunity to present my study description to you. Thank you.

Regards,

Shelley Delano Parker

Appendix H

Participant On Line Invitation

Calling all email users! Do you receive email? If so, you are invited to participate in an online survey researching the effects of email on recipients. The study will take approximately 30 minutes for you to complete and the information collected will be used to research effects of email on recipients. You will be required to read a series of emails and respond to a question at the bottom of each email. Three short questionnaires will follow the emails.

To sign up, please contact the researcher, Shelley Delano Parker, Ph.D. student, Industrial/Organizational Research Lab, UNB. This project is on file with UNB's Research Ethics Board (REB 2015-008).

Appendix I

Information for Participant

You are invited to participate in a study investigating the effects of incivil email on levels of anxiety, stress and counterproductive work behaviours. Your involvement will take the form of pretending to be a new employee in a simulated work scenario by way of reading and responding to a series of emails and completing three on line surveys. You will use a research URL link to complete the study. If you are interested in assisting with this study, please click on the link below to participate after you have read the following information.

Your participation is entirely voluntary and completely confidential. No identifying information is being gathered. The study will take approximately 30 minutes in total to complete. Your employer has provided permission for your organization to participate, however your participation is completely confidential and your employer will not be aware of your involvement unless you choose to inform them.

Please be aware that confidentiality of all responses will be maintained to the best of the researcher's ability. However, as this data is being transmitted over the WWW, you must be informed there is always the possibility of breach of security. Please be aware of this potential risk.

To participate in the study, just click on the link for your instructions:

This study is being done as part of the Ph.D. program in Experimental and Applied Psychology at the University of New Brunswick – Fredericton.

If you have any questions or would like additional information, please do not hesitate to contact the researcher, Shelley Delano Parker.

Thank you.

Appendix J

Participant On Line Consent

Dear...,

Thank you for agreeing to participate in a research study addressing email incivility that is being conducted by Shelley Delano Parker (Ph.D. student), under the supervision of Dr. Barry Spinner, a psychology professor at the University of New Brunswick in Fredericton, Canada.

Purpose of study: Email is a common method of communication. In some cases, the message is deliberately rude or discourteous, in other words incivil. In other cases the intent of the message may be ambiguous and the message may be interpreted (or misinterpreted) to be incivil. The purpose of this study is to learn more about the effects of incivil emails by simulating an email communication environment. The Incivil Email Scale will be used to measure your perception of incivil email.

Using a variation of the incivility definition as stated by Andersson and Pearson (1999), incivil email is defined as an email which implies rudeness, disrespect, and disregard for the recipient in a manner that is contrary to socially acceptable norms for communication. Its lack of clear aggressiveness may make its interpretation confusing, ambiguous and questionable from the recipient's perspective. This often leaves the recipient questioning the intent of the email. These emails are considered to be incivil. This study uses a scale measuring how incivil emails affect the recipient.

Requirements: You will be asked to take part in an online survey that will take approximately 30 minutes to complete. The survey consists of reading 10 emails, some

of which may be considered incivil, with a corresponding question, three scales and asks for some basic demographic information from you.

The email reading section of the survey requests you to pretend you are a new employee, Leslie Smith, at a large sports equipment sales organization, *World Sports*, which prides itself in customer service and a positive work attitude. The recent success of Canada at the Olympics has put the company into high gear for promoting their products. Your role in this company is to be the Communications Coordinator. You have two assistants whose job is to support your activities. Your job includes dealing with the press, helping with marketing and communications, as well as supporting several other people who work with you at the *World Sports* head office. You also provide information you are expert in to current employees as well as receive information from them and further your training. The emails you will read are of different topics and cover a range of activities you would expect to encounter in a normal business environment. You are to pretend you are receiving these emails personally.

After reading each email, you are asked to respond to one question about the current email. The next section of the survey asks you to complete three short scales about your perception of various types of emails and how you interpret them, about various feelings related to anxiety, and other positive and negative feelings. A third scale asks questions about behaviours at work. The demographic information being gathered does not collect any personal information that can identify you. All responses are recorded in a database which is not linked to any identifying information and which is numeric in nature.

Potential benefits: Although you will not benefit directly from participating in this study, you will gain an appreciation of what makes an email incivil. Your participation will also contribute to the greater body of knowledge on effects of incivil email on the recipients. The results of this study will help companies with the development of awareness and policies regarding incivil email. The use of the Incivil Email Scale will provide information about how frequent incivil emails are received and their potential negative consequences; one of which is postulated to be a degradation of safety performance.

Potential risk and discomfort: It is not anticipated that you will experience any discomfort during the study. Some of the questions deal with personal feelings and may cause stress. For example, questions on how much you have been bothered by certain symptoms such as feelings of breathing difficulties or being scared may cause you some stress. If you do feel uncomfortable or stressed, you can withdraw from the study at any time or choose not to answer any of the questions. You are free to contact the researcher if you wish to discuss the study or would like to receive additional information.

For some people, thinking about how certain types of email make them feel can be distressful or unpleasant. If this is the case, you may find that you want more information concerning incivility in general. The following articles provide excellent information on a wide range of incivility related topics.

Andersson, L. M., & Pearson, C. M., (1999). Tit-for-tat: The spiraling effect of incivility in the workplace. *Academy of Management Review*, 24, 452–471.

Johnson, P. R., & Indvik, J. (2001). Slings and arrows of rudeness: Incivility in the workplace. *Journal of Management Development*, 20(8), 705-714.

doi:10.1108/eum0000000005829

Confidentiality of the data: Your name, e-mail address, or any other identifying information cannot be connected to your responses on the survey. The data collected is pooled, is numeric only, and goes directly to a secure electronic database. Your computer address is not part of the data collected. Only the researchers will have access to the information you give on the questionnaire and only a summary of the overall results will be shared in possible future presentations and/or publications. The website that hosts the survey is on a secure server.

Withdrawal from the study: Participation in the study is completely voluntary. If at any time you feel you do not wish to participate for any reason, you can stop the survey. You may also decline to answer specific questions.

More information: You may choose to enter your e-mail address to receive a summary of the findings of this study. If you choose to do so, your address is unable to be linked to your responses on the survey. If you have any questions before, during, or after the study, or if you would like to learn more about this research project, please feel free to contact the researchers. If you would prefer to speak with an individual not directly involved in this research, please contact the Psychology Department Chair (see below).

Contact information: Primary Researcher: Shelley Delano Parker, Ph.D. Student, (sparker@unb.ca), Co-supervisor: Dr. Barry Spinner, Ph.D., Psychology Faculty, UNBF, (spinner@unb.ca), Co-supervisor: Dr. Carmen Poulin, Ph.D.,

Psychology Faculty, UNBF, (carmen@unb.ca), Department Chair: Dr. E. Sandra Byers,
Ph.D., Psychology Faculty, UNBF, (psychair@unb.ca) (506) 458-7803.

Thank you. Your participation is appreciated.

Regards,

Shelley Delano Parker, Ph.D.(c).

Appendix K

Debriefing

The preceding study set out to assess the prevalence and effects of incivil email on the recipient, particularly the effect it may have on levels of anxiety and other negative feelings.

Due to the widespread use of email, its instant response capability as well as its ease of access from anywhere, anytime, the opportunity for users to immerse themselves in a communication melee or frenzy is readily available. Perhaps the speed of transmission drives its participants to forego basic social courtesy and resort to rude or incivil behaviours or, maybe the anonymity of the electronic environment in place of face-to-face communication provides the motivation for the use of incivil messages. Additionally, because an email message is independent of cues, which the recipient may use to interpret the message, and in some ways, ambiguous, it may be perceived as incivil.

This study invited participants from the workplace to use the Incivil Email Scale, the DASS21, a measure of anxiety and stress, and the CWB-32, a measure of workplace behaviour to investigate effects of email on recipients, particularly email perceived to be incivil.

The definition of incivil email was formulated using the definition of workplace incivility by Andersson and Pearson (1999) as its basis.

The measurement scales used for this study were:

The Incivil Email Scale, (Delano Parker & Spinner, 2010). This scale was developed using the Uncivil Workplace Behavior Questionnaire (Cortina, Magley,

Williams, & Langhout, 2001) as a reference point in order to accommodate the inclusion of email as a source of incivility.

The Depression Anxiety Stress Scale (DASS21) (Lovibond & Lovibond, 1995) was used to measure levels of anxiety or stress you may have experienced in the past few days.

The Counterproductive Work Behavior Scale (CWB-32) (Spector & Fox, 2005), subscales abuse and withdrawal, was used to measure workplace behaviour.

Using these measures, the researchers of this study hope to explore the effects perceived email incivility has on the recipient, as well as validate the Incivil Email Scale for its eventual use as a measure of incivil email. The confidential answers you provided using the Email Incivility Scale, DASS21 and the CWB-32 will help explore this issue.

If you have any further questions or comments about this study, please feel free to contact Shelley Delano Parker by e-mail at sparker@unb.ca. Any concerns about this study may be addressed to Dr. Daniel Voyer, Chair of the Ethics Committee in the Department of Psychology, voyer@unb.ca, or to R. Steven Turner, Chair of the REB, University Ethics Committee at sturner@unb.ca. If you wish to request a copy of the results of this study please contact: Shelley Delano Parker at sparker@unb.ca.

Suggested readings on the topic of incivility:

Andersson, L. M., & Pearson, C. M. (1999). Tit-for-tat: The spiraling effect of incivility in the workplace. *Academy of Management Review*, 24, 452–471.

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, 64-80.

Delano Parker, S., & Spinner, B. (2010). *Validation of the incivil email scale*.

Unpublished manuscript. Department of Psychology: University of New Brunswick, Fredericton, New Brunswick.

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states:

Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33, 335-343. doi:10.1016/0005-7967(94)00075-u

Spector, P. E., & Fox, S. (2005). The stressor-emotion model of counterproductive work

behavior. In S. Fox & P. E. Spector (Eds.), *Counterproductive work behavior: Investigations of actors and targets*. (pp. 151-174). Washington, DC: American Psychological Association.

Thank you for your participation in this study. You can now close this window.

CURRICULUM VITAE

Shelley Delano Parker

UNIVERSITIES ATTENDED

2008 – 2016 PhD candidate, Experimental/Applied, University of New Brunswick

2006 – 2008 MA/PhD Candidate University of New Brunswick (transferred into PhD program effective Sept. 2008)

1982 – 1986 M.Ed (Psych) University of Manitoba

1976- 1982 BA (Psychology) University of New Brunswick

PUBLICATIONS

Delano Parker, S., (2016). Canada's safest employer psychological safety document., Gold medal. Toronto:Thomson Reuters.

Delano Parker, S., & Spinner, B. (2010). *Validation of the incivil email scale*. Unpublished manuscript. Department of Psychology: University of New Brunswick, Fredericton, New Brunswick.

Delano Parker, S., (2009). *Workplace stress and health outcomes*. In Taylor & Sirois, *Health Psychology, Canadian Edition*, Toronto: McGraw-Hill Ryerson.

PROFESSIONAL RESEARCH REPORTS

Boyd, D., & Delano Parker, S. (2012). *We don't need a better hard hat*. Canadian Electrical Association White Paper.

Delano Parker, S., (2011). *NB power safety perception survey*. Report submitted to NB Power Corporation Executive, Fredericton, New Brunswick.

CONFERENCE PRESENTATIONS

Delano Parker, S., & Boyd, D. (2015). *We don't need a better hard hat*. Conference Board of Canada, Fredericton, New Brunswick.

Delano Parker, S. (2015). *The safety side of sleep*. Safety Services Conference, Saint John, New Brunswick.

Delano Parker, S. (2015). *Incivility: The hidden harassment*. City of Fredericton, Fredericton, NB.

Delano Parker, S. (2014). *Incivility: The hidden harrassment*. City of Fredericton, New Brunswick.

Delano Parker, S. and Claybourn, M. (2013). *Harrassment in the workplace*. Safety Services Conference Keynote Presentation, Fredericton, New Brunswick. Proceedings published on website.

Delano Parker, S. and Claybourn, M. (2012). *Incivility in the workplace*. Safety Services New Brunswick Conference, Fredericton, New Brunswick. Proceedings published on website.

Delano Parker, S. (2011). *Safety – A state of mind*. Safety Services New Brunswick Conference, Moncton, New Brunswick. Proceedings published on website

Delano Parker, S., Spinner, B. (2010). *Validation of the Incivil Email Scale*. Poster Presentation at Canadian Psychological Association Annual Convention, Winnipeg, MB.

McDowell, M., Delano Parker S, & Spinner, B. (2008). *The effect of an ambiguous stressor on counter productive work behaviors*. Canadian Psychological Association Annual Convention, Halifax, Nova Scotia.

ORGANIZATION PRESENTATIONS

Delano Parker, S., (2015). Workplace stress. Presentation, Government of New Brunswick, Fredericton, New Brunswick.

Delano Parker, S., & Boyd, D., (2014, November). *We don't need a better hard hat*. Presentation to the Department of Transportation, Edmunston, NB.

Cook, W., & Delano Parker, S. (2015). *Executive mindfulness seminar*. NB Power, Fredericton, New Brunswick.