



**DOES PSYCHOLOGICAL CAPITAL MODERATE THE DEGREE OF  
STRESS AND TURNOVER INTENTION ASSOCIATED WITH  
EXPERIENCED WORKPLACE INCIVILITY? AN EXPLORATION IN THE  
SOUTH AFRICAN CONTEXT.**

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*COMPULSORY DECLARATION*

This work has not been previously submitted in whole, or in part, for the award of any degree. This is my own work. Each contribution to, and quotation in this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced accordingly.

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## Abstract

It is of theoretical and practical interest to establish the relationship between experienced workplace incivility and stress and experienced workplace incivility and turnover intentions as well as the potential role of Psychological Capital (PsyCap) in influencing these relationships. The objective of the study was to explore the negative effects resulting from the experience of workplace incivility and whether employees' levels of PsyCap reinforce or attenuate the negative effects associated with experiences of uncivil workplace behaviour. A cross-sectional study with a descriptive design was conducted. Data was gathered by means of a survey that was constructed for the purpose of the study. The survey contained the Uncivil Workplace Behaviour Questionnaire (UWBQ), the Perceived Stress Scale (PSS), a shortened Turnover Intention Scale (TIS-6) and the Psychological Capital Questionnaire (PCQ-24). Convenience sampling was employed to collect data from 271 employees from local organisations, the majority of which were qualified professionals in the Western Cape and Gauteng regions. After removing 83 participants due to incomplete data and a low response rate, descriptive statistics, the non-parametric Spearman's rho and two separate Moderated Multiple Regression (MMR) analyses were used to analyse the responses of the reduced samples ( $n = 188$  and  $n = 185$ ). The first MMR revealed extreme cases which prompted their exclusion which, after a secondary MMR, significantly changed the hypothesised relationships. The results showed that employees reported having experienced workplace incivility and that these experiences were related to both higher levels of stress and turnover intentions. PsyCap was found to influence only the experienced workplace incivility-turnover intention relationship with extreme cases. Participants with higher levels of PsyCap reported higher levels of turnover intention as a result of frequent exposure to workplace incivility suggesting that employers should consider appropriate prevention strategies to reduce its occurrence. Additionally, this study shows the importance of understanding a possibly overlooked antecedent (experienced workplace incivility) of stress and turnover intentions in South African organisations.

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## **Chapter 1: Introduction**

Schilpzand, De Pater and Erez (2014) point out that organisational behaviour research exploring negative workplace behaviour has become increasingly popular over the past two decades. Primarily, research has focused on exploring the detrimental effects resulting from workplace aggression and bullying (e.g. Bowling & Beehr, 2006; Chiaburu & Harrison, 2008; Dalal, 2005). A fairly new addition to the field of negative workplace behaviour, however, is that of workplace incivility, defined by Andersson and Pearson (1999) as dubious workplace behaviour which is low in intensity and ambiguous in its intention to do harm. Making condescending remarks, gossiping and impolite gestures are all examples of uncivil behaviour in the workplace (Caza & Cortina, 2007; Pearson & Porath, 2009).

Due to the increasing frequency of its reported occurrence (Andersson & Pearson, 1999; Cortina, Magley, Williams & Langhout, 2001; Griffin, 2010; Pearson & Porath, 2005), its damaging effects on individuals and the cost implications to organisations (Cortina & Magley, 2009; Cortina et al., 2001; Pearson & Porath, 2005) incivility has fast been gaining momentum as a topic of research. Different types (experienced, witnessed and instigated) and sources (supervisor, co-worker and customer) of incivility have been examined, all of which have the potential to bring about undesirable outcomes.

In the United States (US), from where most of the incivility research stems, Porath and Pearson (2013) estimated that 98% of workers experience incivility, with almost 50% reporting that they experienced uncivil conduct weekly. Furthermore, it is suggested that targets of incivility almost always respond in a negative way (Porath & Pearson, 2013). For example, studies exploring the affective and attitudinal outcomes associated with experienced incivility at work include increased levels of stress (Adams & Webster, 2013) and emotional exhaustion (Kern & Grandey, 2009) and both decreased levels of job satisfaction and motivation (Miner-Rubino & Reed, 2010; Sakurai & Jex, 2012). Unlike explicit mistreatment such as aggression, a single

incident of the milder form of mistreatment, that of incivility, might not be experienced as stressful (Andersson & Pearson, 1999), but an accumulation of perceived incivility leads to negative outcomes (Kern & Grandey, 2009). Unfavourable behavioural outcomes have also been attributed to experiencing workplace incivility such as increased levels of absenteeism (Sliter, Sliter, Withrow & Jex, 2012) and higher turnover intentions (Griffin, 2010) often resulting in organisational exit (Porath & Pearson, 2012). At the organisational level, incivility chips away at the bottom line, costing organisations greatly as a result of having less productive employees (Johnson & Indvik, 2001). These outcomes resulting from the experience of incivility illustrate the importance of incivility as a research topic within the domain of negative workplace behaviour.

In the South African context, Van Schalkwyk, Els and Rothmann (2011) suggest that the study of negative workplace behaviour is in its infancy. While studies exploring the effects of more overt forms of negative workplace behaviour such as bullying, aggression and harassment exist (e.g. Cunniff & Mostert 2012; Pietersen, 2005; Ramsaroop & Parumasur, 2007; Van den Broek, Baillien & De Witte, 2011), the extent to which workplace incivility, as a milder, covert form of negative workplace behaviour, might occur in South Africa is not clear. This study therefore seeks to contribute knowledge to an under-researched area in the South African context. Further to this, the study seeks to explore the relationship between experienced workplace incivility and stress (affective outcome) and experienced workplace incivility and turnover intentions (behavioural outcome).

The second aim of this study is to examine the role of Psychological Capital (PsyCap) as a protective mechanism against experiencing workplace incivility, specifically, in attenuating the related stress and turnover intention effects. PsyCap is conceptualised as an individual's positive psychological state of development characterised by hope, optimism, resilience and self-efficacy (Luthans, Youssef & Avolio, 2007). It is likely that the extent to which negative outcomes associated with experiencing incivility are felt, depends on the degree to which an individual has

developed such personal psychological resources. Investigating PsyCap's role as proposed could provide useful practical insights which can inform appropriate interventions aimed at curtailing the negative effects resulting from experienced workplace incivility.

While studies have examined PsyCap's relationship with positive work behaviour such as those conducted by Avey, Luthans, Smith and Palmer (2010) on well-being and Luthans, Avolio, Avey and Norman (2007) on job satisfaction, very little research has explored whether PsyCap also reduces the negative implications of negative work behaviours such as incivility. One study found that individuals possessing higher levels of PsyCap tended to display less uncivil behaviours (Roberts, Scherer & Bowyer, 2011). In their examination of *experienced* workplace incivility in the US, Laschinger, Wong, Regan, Young-Ritchie and Bushell (2013) showed that resiliency, as a *single* psychological resource, significantly decreased mental health symptoms such as depression and anxiety in graduate nurses who were targets of incivility. No research however has explored whether PsyCap, as a whole, could lower the degree of stress and turnover intentions of employees who are targets of uncivil behaviour. The present study thus aims to contribute knowledge to this end by exploring whether or not employees high in the psychological resource PsyCap experience workplace incivility as (i) less stressful and (ii) display less turnover intention behaviours than employees low in the psychological resource. As such, this dissertation addresses the following question: Does psychological capital buffer the effects of stress and turnover intention in South African employees experiencing workplace incivility?

No published research was found which explored whether workplace incivility in South African organisations is related to negative individual and/or organisational level effects. The purpose of this research has two elements. First, a traditional, pathological element investigating undesirable individual and organisational level effects that may be resulting from the experience of uncivil workplace behaviour. And, with a particular interest in the resurgence of the positive psychology movement,

informing the second element is exploring whether PsyCap buffers these associated negative effects.

In an attempt to answer the question as posed above, this study begins with a review of relevant literature which includes a theoretical background to the study of workplace incivility that distinguishes it from related negative workplace behaviours. An overview of its prevalence and impact on both the individuals and organisations that experience it then leads to the derivation of the first set of this study's hypotheses. Thereafter, reference to the positive psychology movement and positive organisational behaviour will be made in order to describe the core construct of PsyCap leading to the study's second set of hypotheses. The methods chapter providing information about the sample, data collection procedure and measurement scales used in this study then follows. The results chapter outlines the psychometric properties of the scales used in this study which are provided alongside the descriptive statistics and a description of the results related to the hypotheses. The final chapter discusses the study's findings and illuminates important practical implications thereof before concluding remarks bring the study to a close.

## **Chapter 2: Literature Review**

This chapter provides a theoretical account of workplace incivility and in so doing, distinguishes it firstly, from civility, and secondly from closely related negative workplace behaviour concepts such as workplace bullying. Its prevalence will then be discussed before making reference to its individual and organisational effects. Specifically, the effects of stress and turnover intentions will be discussed in the context of South Africa after which plausible hypotheses are presented. Following this, the positive psychology movement will be outlined as a backdrop to the discussion of PsyCap as a moderator in the present study. The second set of hypotheses are then presented.

### **2.1 Theoretical Background on Workplace Incivility**

In this section, workplace civility and workplace bullying will be described. Against these descriptions, workplace incivility will be defined according to three characteristics which differentiate it as an independent negative workplace behaviour construct.

**2.1.1 Workplace civility.** Workplace civility encompasses behaviour such as regard for others (e.g. politeness) in accordance to workplace norms (Andersson & Pearson, 1999). Workplace norms are the basic moral standards applicable to a workplace community, including those prescribed by an organisation's formal and informal policies, procedures and rules (Feldman, 1984; Hartman, 1996). Although workplace norms vary according to different organisations and cultures, Andersson and Pearson suggest that basic norms for respecting co-workers exist in every workplace community. Accordingly, workplace civility is defined by Andersson and Pearson as behaviour that supports the preservation of norms for mutual respect. It follows then that workplace incivility is the non-adherence to workplace norms. In order to arrive at a comprehensive definition of incivility, it is necessary to also address how it overlaps and differs from other forms of workplace mistreatment.

**2.1.2 Differentiating and defining workplace incivility.** Workplace incivility, workplace bullying, workplace harassment and workplace violence and aggression are all forms of Counter-productive Work Behaviours (CWBs) (Branch, 2008). In order to contextualise workplace incivility for the present study, it needs to be differentiated from other CWBs. An exhaustive theoretical review inclusive of each of these forms of behaviours and how they are similar and different from one another is beyond the aim of the present study. For clarity purposes however, the key characteristics of these related CWBs will be highlighted to provide a setting to the defining characteristics of workplace incivility.

Workplace bullying has been described as an umbrella term for behaviours which involve harassment, intimidation, aggression and violence (Fox & Stallworth, 2004). A variety of acts therefore constitute workplace bullying, from vandalism and sabotage to physical abuse and homicide. A common feature of these acts is the obvious intent to do harm to an individual, or group of individuals, either physically or psychologically (Branch, 2008). Additionally, these behaviours are either of mild or high intensity (Andersson & Pearson, 1999).

Against this backdrop, three definitional elements that distinguish workplace incivility from other forms of negative workplace behaviour are discussed below, namely, that it is mild in behaviour (2.1.2.1), it violates organisational norms (2.1.2.2) and has an ambiguous intent to do harm (2.1.2.3).

**2.1.2.1 Behaviour must be mild in intensity.** Uncivil behaviours are located at the low or mild end of the intensity continuum (Andersson & Pearson, 1999). Martin and Hine (2005) assert that uncivil behaviours are manifested either verbally, nonverbally, actively or passively. Examples include gossiping about a co-worker (verbal), ignoring a co-worker (non-verbal), using a co-worker's stationery without permission (active) and passively failing to notify a co-worker of a meeting of high importance. Uncivil behaviours are never physical and are therefore distinct from

bullying, aggression and violence which lie at the high end of the intensity continuum (Roberts et al., 2011). Although uncivil acts are mild, they cost organisations significantly as a result of decreased performance and attendance amongst its targets. For example, Chen et al. (2012) and Porath and Erez (2007) found that employees who frequently experienced workplace incivility reduced their task performance. Furthermore, Lim, Cortina and Magley (2008) found that experiencing incivility negatively affected job satisfaction, turnover intentions and mental health.

**2.1.2.2 Behaviour must deviate from organisational norms.** To be considered uncivil, behaviours must infringe on the norms of the organisation. Organisational norms are commonly assumed to facilitate supportive interactions amongst employees (Andersson & Pearson, 1999). General examples of norms that prescribe employee behaviour include greeting a co-worker in passing or replenishing paper in a copier machine upon finding it empty after use (Roberts et al., 2011). Behaviours that violate such norms of mutual respect are regarded as uncivil.

**2.1.2.3 Behaviour must be ambiguous.** As a final condition, intent to harm must be ambiguous in two ways, i.e. involving both the intent of the instigator as well as the target's perception of the uncivil act. The instigator's action(s) *may* or *may not* intend to inflict harm on the target and the target may perceive the action as deliberate or unintentional (Pearson & Porath, 2005). Both personal characteristics of the target and the contextual factors in which the uncivil behaviour is located often influence the target's perception. For example, uncivil actions could be due to the instigator's personality, an oversight, or general ignorance which result in accidental harm rather than intentional harm (Pearson, Andersson & Wegner, 2001). Employees experiencing such ambiguous and subtle uncivil acts could become distressed as they attempt to make sense of the behaviour and whether they are to respond to it (Lim et al., 2008). The ambiguous nature of uncivil acts presents a challenge to organisations in that creating policies prohibiting such acts or disciplining those who display them is difficult (Roberts et al., 2011).

## **2.2 Prevalence of Workplace Incivility**

Previous studies such as those conducted in the US (Cortina, 2008; Cortina, Kabat-Farr, Leskinen, Huerta & Magley, 2013; Cortina & Magley, 2009;), Canada (Laschinger, Leiter, Day, Gilin-Oore & Mackinnon, 2012; Leiter, Laschinger, Day & Oore, 2011;) Australia (Martin & Hine, 2005), parts of Asia (Lim & Lee, 2011; Wu, Zhang, Chiu, Kwan & He, 2014), Pakistan (Bibi, Karim & ud Din, 2013), New Zealand (Griffin, 2010) and the United Kingdom (Reich & Stride, 2012; Totterdell, Hershcovis, Niven) all indicate that incivility is a commonly occurring phenomenon. Moreover, these studies were carried out with samples across an array of industries and professions, illustrating that workplace incivility is not a cultural or industry specific phenomenon but rather a universal one that affects employees around the world.

Public polls in the United States suggest that incivility is on the rise. Pearson and Porath (2005) surveyed approximately 800 employees, revealing that 10% of employees witnessed incivility daily and 20% said that they had been direct targets of incivility at least once per week within their workplaces. Cortina et al. (2001) found that over 70% of 1,180 private-sector employees had been targets of incivility over the preceding five years. Although sample-based, these statistics propose that many employees and organisations are being impacted by workplace incivility, either directly or indirectly.

In spite of the recent interest by researchers to understand the precursors and effects of incivility, research on incivility has mostly taken place in Western nations such as North America (e.g. Andersson & Pearson, 1999; Cortina et al., 2001; Lim et al., 2008). This study aims to examine the generalisability of past incivility research findings by investigating the extent to which rude and disrespectful behaviours occur in a South African context and if the associated undesirable effects are present as a result. The negative consequences of workplace incivility which have been found in other contexts are outlined below.

### **2.3 Effects of Workplace Incivility**

Experiencing incivility in the workplace has been found to be related to a number of affective, attitudinal, cognitive and behavioural outcomes. Affective outcomes include depression (Lim & Lee, 2011) and increased levels of stress (Adams & Webster, 2013). Attitudinal and cognitive outcomes include decreased organisational commitment and motivation (Lim & Teo, 2009; Sakurai & Jex, 2012) and lower levels of perceived fairness (Lim & Lee, 2011) respectively. Finally, research indicates that experienced incivility is associated with decreased work engagement (Chen et al., 2012), withdrawal (Martin & Hine, 2005) and turnover intentions (Griffin, 2010). Organisational effects of workplace incivility include a decline in work related performance. For example, Pearson and Porath (2009) found that 80% of employees reported lost time due to worrying about an uncivil occurrence and 48% reported that they deliberately lowered their work efforts.

It is clear that all these associated outcomes are undesirable for both the individuals experiencing them and the organisations to which the targets of incivility belong. For the purposes of the present study, two of the above mentioned outcomes, namely, stress and turnover intention are considered further. Reasons for these specific outcomes' inclusion in this study are briefly described below. A separate discussion of each outcome is then provided in section 2.3.1 (stress) and 2.3.2 (turnover intention).

Contemporary workplaces are becoming ever-more complex to operate in as organisations become flatter and function laterally using cross-functional teams (Bunk, Karabin & Lear, 2011). Increasing performance demands within teams and expectations to keep abreast with rapid advances in technology further denote the complex working reality for many employees. As such, workplaces are becoming more stressful to operate in as employees are likely challenged with greater interpersonal demands. Bunk et al. even go as far as saying that the requirement for interpersonal contact in today's workplaces has never been greater. Given the above, it is of interest to investigate additional factors that could be inducing higher levels of

stress in employees. Furthermore, this investigation could provide practical relevance by way of understanding and managing factors such as incivility which could be playing a role in employee stress levels.

Managing talent in organisations is a key human resource management challenge given the diverse composition and distribution of the South African labour force. The fact that individuals, in general, are starting to manage their own careers in accordance with their individual career and work needs further exacerbates this challenge, especially with regards to skilled employees (Schreuder & Coetzee, 2011). Losing highly skilled employees may have disruptive implications for organisations, such as decreased organisational functioning and increased financial cost due to re-hiring and re-training employees (Roodt & Bothma, 1997; Sulu, Ceylan & Kaynak, 2010). It is therefore of importance to explore factors that could be driving employees' turnover intention in light of the possible negative consequences resulting from it.

**2.3.1 Incivility and stress.** Stress refers to the discomfort an individual experiences as a consequence of his or her work situation, which usually occurs when there is a discrepancy between job demands and job resources (Jex & Beehr, 1991; Lazarus & Folkman, 1984). Examples of workplace stress include interpersonal conflict and high job demands (Spector & Fox, 2005). Spector's (1998) job stress model states that when individuals perceive environmental stressors and appraise them as such, it leads to the experience of negative emotions such as anxiety or anger, which are followed by reactions to the stressors. These reactions can manifest physically, psychologically or behaviourally (Jex & Beehr, 1991). According to Spector's job stress model, incivility would be classified as a stressor given that it is an event or condition in the environment that necessitates a response. Such responses for example could be absence from work (behavioural) in order to avoid the source of incivility, or feelings of confusion and sadness (psychological) and related levels of increased anxiety (physical) as a result of experiencing incivility. This claim is supported in research conducted by Caza and Cortina (2007) and who found that

undergraduate working students' feelings of general psychological distress such as depression and anxiety increased as the experience of incivility became more frequent. Adams and Webster (2013) provide further support in their study which was conducted with employees from an engineering firm who reported greater distress as a result of experiencing incivility.

**2.3.2 Incivility and turnover intentions.** Tett and Meyer (1993) define turnover intention as an individual's conscious and deliberate readiness to leave the organisation which can be used as a valid proxy for actual labour turnover. Turnover can be permanent, when employees leave an organisation, or it can be considered semi-permanent when employees seek and accept transfers to other departments. Penney and Spector (2005) suggest that being treated in an uncivil manner is associated with lowered levels of intention to remain with an organisation. This relationship was empirically demonstrated in studies conducted by Spence Laschinger, Leiter, Day and Gilin (2009) and Griffin (2010). The former found that both co-worker and supervisor incivility predicted turnover intentions amongst nurses, and the latter found that co-worker incivility amongst Australian and New Zealand employees predicted turnover intentions.

Although there are a number of South African studies investigating reasons why employees choose to leave an organisation (eg. Bothma & Roodt, 2012; Du Plooy & Roodt, 2010; Stanz & Greyling, 2010), these have not considered the role workplace incivility might play. The authors concur though that employee turnover in South Africa is a key challenge. Indeed Bothma (2011) concluded that turnover has significant cost and other negative consequences for an organisation.

From the literature reviewed above, it is plausible that experienced workplace incivility predicts both stress and turnover intentions in individuals and is thus likely to have undesirable organisational consequences.

It is thus posited that:

*Hypothesis 1a:* Experienced workplace incivility is positively related to stress.

*Hypothesis 1b:* Experienced workplace incivility is positively related to turnover intention.

An additional purpose of the present study is to investigate whether the hypothesised relationship between experienced workplace incivility and stress on the one hand, and turnover intention on the other, is moderated by PsyCap; a higher order construct which originates from the positive psychology movement. An outline of the positive construct's origins is provided below.

## **2.4 Rise of Positive Psychology**

Since its formal introduction in 1998, the positive psychology movement has thrived, giving rise to a community of scholars and practitioners concerned with improving diverse aspects of society (Donaldson, Csikszentmihalyi, & Nakamura, 2011). Constructs that have been emphasised in this movement include those relating to strengths, excellence, flourishing and flow (Donaldson & Ko, 2010). It has been advocated that such a 'strengths' perspective, as opposed to the traditional 'deficit' perspective, can generate value by contributing to a clearer understanding of optimal human performance within increasingly stressful and complex organisations (Roberts, 2006). As such, positive psychology has widened the perspective beyond that which is wrong with individuals to an emphasis instead on optimal functioning (Luthans et al., 2007). Over the past decade, positive psychology research applied to work settings has generally been referred to as positive organisational psychology, positive organisational behaviour, and positive organisational scholarship (Donaldson & Ko, 2010). These terms have sometimes been used interchangeably (e.g., Hackman, 2009) and sometimes as having distinct meanings (Donaldson & Ko, 2010). For the purposes of the present study, Positive Organisational Behaviour (POB) will be described because PsyCap is most often subscribed to this term.

**2.4.1 Positive organisational behaviour.** POB can be defined as the study and application of “positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today’s workplace” (Luthans, 2002, p.59). Furthermore, POB is mainly concerned with individual psychological qualities and their impact on improving performance (Donaldson & Ko, 2010). A significant focus of POB theory and research has included PsyCap as a construct (Luthans et al., 2004). A definition of PsyCap and its related constructs is presented below.

**2.4.2 Psychological capital.** The core construct of PsyCap is a higher order constellation of positive psychological constituents that comprises hope, optimism, self-efficacy and resilience (Luthans, Avey, Clapp-Smith & Li, 2008). More specifically, PsyCap is defined as an individual’s positive state which is open to development and characterised by having confidence to undertake and allocate the necessary energy to succeed at challenging tasks (*self-efficacy*); having a positive attribution about being successful presently and in the future (*optimism*); having preservation towards goals, and when required, being able to redirect routes to goals in order to be successful (*hope*); and lastly, having the ability to overcome problems and adversity to attain and/or sustain success (*resilience*). A person’s level of PsyCap is therefore a combination of his or her level of self-efficacy, optimism, hope and resilience. As a resource, Sweetman and Luthans (2010) posit that PsyCap can assist employees to achieve goals, facilitate personal growth and buffer work demands, and thereby contribute to organisational performance. Although studies indicate that these four constituents are conceptually independent constructs (e.g. Luthans & Jensen, 2002; Luthans et al., 2007; Snyder, Rand & Sigmon, 2002) it has been suggested that each constituent of PsyCap strengthens the other (Luthans et al., 2007). For example, being in the possession of greater levels of resiliency may also increase one’s level of self-efficacy and vice versa, suggesting that the constituents have a synergistic effect (Avey, Luthans & Jensen, 2009). As a whole therefore, PsyCap is deemed a stronger predictor of job outcomes than its individual parts (Luthans et al., 2007). Studies exploring the relationship between PsyCap as a whole with both positive and negative

job related outcomes will be discussed below after a review of South African studies which have explored PsyCap's applicability locally.

**2.4.3 Psychological capital in South Africa.** The PsyCap measurement instrument (PCQ-24) developed by Luthans et al. (2007) in the US is seen as a monocentered instrument because it originates from a single Western cultural background (Van de Vijver & Leung, 2001). It is therefore important to note the findings of South African studies that made use of the PCQ-24.

In two studies which sought to explore whether the predominantly Western PsyCap construct could be applied in the South African multi-cultural, multi-racial landscape, Du Plessis and Barkhuizen (2012) and Görgens-Ekermans and Herbert (2013) shed some light on PsyCap's use in a local context. In the former study, the construct validity results revealed a three-factor structure underlying the PsyCap scale suggesting that the sub-dimensions hope and self-efficacy merge into a single dimension. Similar findings suggesting that a four factor structure may not be appropriate in South African samples were found by Brouze (2014) and Harris (2012). The study conducted by Du Plessis and Barkhuizen however, included a sample of HR Practitioners ( $n = 131$ ) and was thus not representative of other professions. Evidently, Du Plessis and Barkhuizen call for further research exploring PsyCap's applicability in different occupational contexts. The present study aims to further contribute to PsyCap's use in local contexts in response to the above. In the latter, Görgens-Ekermans and Herbert found a good fitting model using Confirmatory Factor Analysis (CFA) which supported the four factor structure of the PCQ-24. Both Herbert (2011) and Du Plessis (2014) reported similar acceptable fit results in their estimation of PsyCap's validity in the South African context using CFA. Studies exploring the external validity of PsyCap in South Africa also offer some insights into the use of the PCQ-24 locally. For example, PsyCap was found to be positively related to the outcomes of work engagement (Harris, 2012), organisational citizenship behaviour (Pillay, 2012), organisational commitment (Naran, 2013) and negatively related to occupational stress and burnout (Herbert, 2011).

Nevertheless, further insight into PsyCap's use in different South African samples is needed, and, given the potential benefits emanating from POB literature, it is important to continue exploring PsyCap's applicability in the local context. The present study therefore seeks to contribute knowledge to this end.

**2.4.2.1 Outcomes of PsyCap.** A number of studies have investigated the relationship between PsyCap and desirable employee attitudes. For example, in their meta-analytic review, including fifty-one independent samples primarily in the US (total  $n = 12\,567$ ), Avey, Reichard, Luthans and Mharte (2011) found that PsyCap positively relates to job satisfaction, organisational commitment and psychological well-being. In a similar vein, their review showed that a negative relationship exists between PsyCap and turnover intentions, job stress and anxiety, all of which constitute undesirable employee attitudes and behaviors. In particular, in a study conducted by Avey et al. (2009) with US employees representing a larger variety of jobs in different industries, evidence is offered that PsyCap counteracts distress related to job demands, thereby acting as a suppressor of stress and anxiety. This finding suggests that employees high in PsyCap have a more positive outlook regarding future outcomes and greater confidence in their ability to deal with job related challenges. It is plausible that employees high in PsyCap are less likely to quit their jobs because their optimism motivates them to take charge of their future and employ the required effort and resources to persist when faced with obstacles (Bandura, 1997, Seligman, 1998). This notion is empirically supported by studies which found that individuals high in PsyCap exhibited lower levels of job search behaviour (Chen & Lim, 2012) and turnover intentions (Avey, Hughes, Norman & Luthans, 2008).

Given the above findings, it is likely that PsyCap could buffer the negative effects associated with experienced workplace incivility. Furthermore, and in response to a future research invitation by Newman, Ucbasaran, Zhu and Hirst (2014) who call for studies exploring PsyCap's moderating role, the present study explores if employees who are exposed to workplace incivility, but who are high in PsyCap,

experience stress and the desire to exit the organisation to a lesser extent than those employees who possess less PsyCap.

The higher-order construct, PsyCap, is thus hypothesised to moderate the undesirable individual (stress) and organisational (turnover intention) effects of experienced workplace incivility.

*Hypothesis 2a:* The positive relationship between workplace incivility and stress is stronger for employees low in PsyCap than for employees high in PsyCap.

*Hypothesis 2b:* The positive relationship between workplace incivility and turnover intention is stronger for employees low in PsyCap than for employees high in PsyCap.

## **Chapter 3: Method**

This chapter provides a description of the research design and participants used in the study. An outline of the sampling technique and data collection procedure follows before the instruments used to measure the constructs under investigation are described.

### **3.1 Research Design**

The study is quantitative in nature given that its aim is to test hypotheses using data collected from a sample with the aim of generalising the results to the broader sample population. In addition, the study sought to investigate relationships among variables and as such used a descriptive research design. Data was collected using a cross-sectional self-report survey as this was considered the most appropriate in relation to both the study's objectives and time constraints.

### **3.2 Participants and Sampling**

Working professionals in South African organisations who were able to understand English, the language in which the questionnaire was administered, were targeted as participants. The questionnaire in this study was designed using a forced response format to each of the scale questions, and as such, a participant could not continue onto a new page of questions if he or she had left any single item unanswered. It was hoped that this would reduce non-response item bias in the data. However, a large number of respondents who started the questionnaire, discontinued near the beginning or about mid-way through it. A decision was taken therefore to delete those cases who had failed to respond to all of the items of at least one of the measurement scales in the study. As such, of the 271 questionnaires that were attempted, a total of 188 participants completed the provided questionnaire scales satisfactorily.

Participants' ages ranged from 21 to 66 years, with an average age of 36.7 years (SD = 10.84). A total of 55.3% (n = 104) of the participants were female and 44.7% (n = 84) were male. The sample therefore had an over-representation of females. The majority of the participants indicated their race as white (73.8%; n = 138), whereas 9.6% classified themselves as coloured (n = 18), 9.1% as Black (n = 17), 3.2% as Indian (n = 6), 1.6% as other (n = 3), and the remaining 2.7% preferred not to answer (n = 5). The sample was thus not representative in terms of race. In addition, the majority of the participants worked either in the Western Cape (51.9%, n = 97) or Gauteng (38%, n = 71). The Eastern Cape represented 4.8% of the sample (n = 9), and Kwa-Zulu Natal and the North West accounted for 2.7% (n = 5) and 1.6% (n = 3) respectively. One participant from each of the remaining provinces, namely, the Free State, Limpopo and Mpumalanga stated their location. A description of further demographic information of the sample is provided in Table 1 on the following page.

Table 1

*Sample demographics (n = 188)*

		<b>No. of participants</b>	<b>Percentage</b>
<b>Marital Status</b>	Divorced	18	9.6%
	Married or domestic partnership	90	48.1%
	Separated	1	0.5%
	Single, never married	78	41.7%
	Missing	1	0.0%
<b>Home Language</b>	Afrikaans	46	24.6%
	English	124	66.3%
	Northern Sotho	1	0.5%
	Sotho	2	1.1%
	Tsonga	1	0.5%
	Tswana	3	1.6%
	Xhosa	3	1.6%
	Zulu	4	2.1%
	Other	3	1.6%
	Missing	1	0.0%
<b>Education Level</b>	Less than Grade 12	3	1.6%
	Grade 12	33	17.6%
	Diploma	48	25.7%
	Undergraduate Degree	28	15%
	Postgraduate Degree	69	36.9%
	Doctoral Degree	6	3.2%
	Missing	1	0.0%
<b>Employment Level</b>	Non-management	71	37.8%
	Junior Management	27	14.4%
	Middle Management	43	22.9%
	Senior Management	28	14.9%
	Executive	19	10.1%
<b>Work Status</b>	Full-time	166	88.3%
	Part-time	15	8%
	Casual	2	1.1%
	Fixed	5	2.7%

Note: An overview of industries in which participants worked is provided in Appendix A, Table 1.

A non-probability sampling method, namely, convenience sampling, was utilised in the study. In addition to being relatively easy to administer, the method conveniently identifies participants who are accessible and willing to participate in the study. A drawback of adopting this sampling method is that it limits the generalisability of the results pertaining to the study, however, it was nevertheless deemed an appropriate method to use given that it is inexpensive (Terre Blanche & Durrheim, 2009). The time frame to complete this research study was less than a year. The snow-balling technique was thus used in order to maximise the breadth of access to the study, thereby allowing for many responses over a relatively short period of time. The exact manner in which participants were recruited is described in section 3.3 below.

### **3.3 Procedure**

Once approval from the University of Cape Town's Commerce Ethics in Research Committee had been granted, a self-report questionnaire<sup>1</sup>, designed using Qualtrics software, was sent to working individuals on the researcher's emailing list. Individuals were also invited to participate via the researcher's social media accounts. In particular, LinkedIn, Facebook and twitter were used. A link to the questionnaire was posted on each of these platforms. Accompanying the questionnaire was a letter explaining the overall purpose of the study which informed participants that taking part in the study was voluntary and participation was anonymous, assuring that any information provided would be kept confidential<sup>2</sup>. All participants were asked to forward the link of the electronic questionnaire to other working individuals on their respective mailing lists and social media accounts.

A lucky draw for a R500 shopping voucher for a convenience store was included as an incentive in order to increase the response rate in the study. Participants could enter the lucky draw after their responses to the questionnaire were recorded by following a separate link. Once there, their email address was entered and submitted in a different Qualtrics questionnaire so that they could be notified if they had won the prize. This ensured that all responses remained anonymous as it was not possible to link email addresses to the corresponding data set. The lucky draw was finalised after the data collection period (24 July - 18 August 2014) and the voucher was sent to the winner.

### **3.4 Measures**

Along with answering ten questions regarding their demographic information at the start of the questionnaire, participants were required to select an answer to 61 statements that best represented their experience in the workplace. All responses were

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<sup>1</sup> See Appendix B for questionnaire items.

<sup>2</sup> See Appendix C for respondent invitation to participate.

given on 5-point Likert scales. Responses ranged from “never” (1) to “always” (5) for items relating to the experienced workplace incivility, perceived stress and turnover intention scales and “strongly disagree” (1) to “strongly agree” (5) for the PsyCap scale. Each of these measures will each be described in sections 3.4.2 to 3.4.5 below.

**3.4.1 Demographic characteristics.** Questions pertaining to this part of the questionnaire sought to gather information about the participants’ gender, age, race, level of education, marital status, home language, industry, location, employment level and work status (full-time, part-time, casual or fixed term contract).

**3.4.2 Experienced workplace incivility.** In order to assess the prevalence of incivility experienced in the workplace, Martin and Hine’s (2005) 17-item *Uncivil Workplace Behaviour Questionnaire (UWBQ)* was utilised. The scale comprises four subscales, namely, hostility (4 items), privacy invasion (4 items), exclusionary behaviour (5 items) and gossiping (4 items). Martin and Hine report that principal axis factoring of the scale revealed these four interpretable factors and, furthermore, CFA on a hold-out sample provided further support for the 4-factor structure. Reliabilities for the subscales ranged from 0.84 to 0.92 with an aggregated reliability score of 0.91 for the overall scale (Martin & Hine, 2005). All items are phrased in such a way that a high score indicates a high level of experienced incivility. An example item included “In the past 12 months, how often has a co-worker, subordinate or supervisor raised their voice while speaking to you”.

The lead-in statement which solicits the response to all the items was changed to include different sources of incivility. In the original scale, the lead-in statement reads: “*In the past 12 months, how often has a co-worker...*” whereas in the present study the word co-worker was replaced with colleague, subordinate and/or supervisor. This was done in order to increase the scope of experienced incivility by including various sources. The use of the UWBQ was chosen as an appropriate measurement scale due to its sound psychometric properties and given that it is the most comprehensive scale used to measure workplace incivility.

**3.4.3 Turnover intention.** In a South African study conducted by Bothma and Roodt (2013), the six-item short version of Roodt's (2004) Turnover Intention Scale (TIS-6) was found to exhibit good internal consistency (Cronbach  $\alpha = 0.80$ ). The scale could significantly differentiate between leavers and stayers, thereby confirming its criterion-related validity. The scale was chosen in this study given its prior use in a South African sample. Two items were phrased in a negative direction in order to protect the scale against response acquiescence and needed to be reverse-coded so that a high score always indicated a high level of turnover intention. These items are 'To what extent is your current job satisfying your personal needs?' and 'How often do you look forward to another day at work?'

**3.4.4 Stress.** Stress was measured using the Perceived Stress Scale (PSS) which was developed and validated by Cohen, Kamarck and Mermelstein (1983). The degree to which participants consider their lives as unpredictable, uncontrollable and overloaded is measured with 14 items. A sample item is, "In the last month, how often have you felt nervous and/or stressed?" The PSS as a measure of general stress was used rather than a scale pertaining specifically to work stress, as it is assumed that the effects of incivility permeate beyond the work context. Evidence supporting this assumption is provided by research conducted by Lim and Cortina (2005) and Cortina et al. (2001) who found the experience of incivility to be related to higher levels of general stress and psychological distress respectively. In addition, given that adequate reliability ( $\alpha = .86$ ) has been reported for the PSS (Cohen et al., 1983) and that the PSS is a widely used instrument to assess stress it was chosen for the present study. Items 4, 5, 6, 7, 9, 10 and 13 were reverse-coded so that a high score always indicated a high level of perceived stress.

**3.4.5 Psychological capital.** The 24-item Psychological Capital Questionnaire (PCQ-24) was used to measure the extent to which participants possess the psychological resource given that the scale has been shown to possess sufficient reliability and validity by the developers of the instrument (Luthans et al., 2007). The scale consists of four underlying sub constructs, namely, hope, resilience, self-

efficacy and optimism. The internal consistency scores for the scale ranged from 0.72 to 0.80 for hope (six items), 0.66 to 0.72 for resilience (six items), 0.75 to 0.85 for self-efficacy (six items) and 0.69 to 0.79 for optimism (six items) (Luthans et al., 2007).

In South Africa, preliminary evidence of the PCQ-24's psychometric properties was provided in a study conducted by Görgens-Ekermans and Herbert (2013). The reliability results indicated that the hope ( $\alpha = .81$ ) and self-efficacy ( $\alpha = .83$ ) subscales comfortably met the  $\alpha > .70$  cut-off score (Nunnally, 1978). The optimism ( $\alpha = .67$ ) and resilience ( $\alpha = .69$ ) scores indicated less internal consistency as has been shown in previous studies (e.g., Avey, Luthans & Youssef, 2010; Luthans et al., 2007). In order to examine the construct validity of the PCQ-24, Görgens-Ekermans and Herbert conducted CFA. Using the robust maximum likelihood estimation technique, the results indicated a good fit for the four factor model,  $\chi^2 (246, N = 209) = 323.68, p < .05$ , comparative fit index (CFI) = .98, RMSEA = .04, CI: [0.02; 0.05]. Furthermore, Exploratory Factor Analysis (EFA) using principal axis factoring with direct oblimin rotation was conducted to establish whether the four PCQ-24 subscales could be summarised by one higher order factor. One factor explaining 69.33% of the variance supported the one dimensionality given sufficient factor loadings for each subscale (self-efficacy = .84; hope = .87; resilience = .83; optimism = .79).

Example items of the four sub-constructs are: "I feel confident in representing my work area in meetings with management" (efficacy); "I can think of many ways to reach my current work goals" (hope); "I usually take stressful things at work in stride" (resilience); "I always look on the bright side of things regarding my job" (optimism). Three items were to be reverse coded, namely, item 13 ('When I have a setback at work, I have trouble recovering from it and moving on'), item 20 ('If something can go wrong for me work-wise it will') and item 23 ('In this job, things never work out the way I want them to') so that a high score on these scales indicated that the participant had a high level of the underlying psychological resource.

### **3.5 Statistical Analysis**

The data used in the study was analysed using IBM SPSS version 22. A discussion of the procedures which were followed are provided in the next chapter which details the results of the study.

## Chapter 4: Results

This chapter presents the study's findings in three sections. In the first, both the internal consistency and construct validity of the scales are described. The descriptive statistics for each of the scales used in the study will be provided in section 4.2. Lastly, the statistical procedures used to test findings in relation to the study's hypotheses are provided.

### 4.1 Consistency and Structure of Measurement Scales

The consistency of a scale indicates the scale's reliability by describing the degree to which the items making up the scale all measure the same underlying characteristic (Pallant, 2005). This is important because unreliable scales lead to unreliable results and in order to generate new knowledge, results must be based on reliable data. The most commonly used statistic to measure the internal consistency of a scale is Cronbach's alpha coefficient ( $\alpha$ ) which provides an indication of the average correlation between all of the items that make up a scale (Pallant, 2005). For this reason it was used in the present study. The following guidelines proposed by Nunnally (1978) were adopted when reporting and interpreting the Cronbach alpha coefficient:  $\alpha < .50$  = unacceptable reliability,  $.50 > \alpha > .60$  = questionable reliability,  $.60 > \alpha > .70$  = acceptable reliability,  $.70 > \alpha > .80$  = good reliability,  $\alpha > .90$  = excellent reliability. An additional statistic which is of interest when assessing the reliability of a scale is the corrected item-total correlation which indicates the degree to which each item correlates with the total scale score (Pallant, 2005). Corrected item-total correlations greater than .30 are considered acceptable (Nunnally & Bernstein, 1994).

Construct validity is defined as the extent to which a scale measures what it purports to theoretically measure. This study therefore, sought to explore whether the scale items belonged to the construct that they were theoretically proposed to belong to. In order to ascertain if this was the case, the EFA method was employed since this multivariate statistical approach reveals the underlying structure of a set of variables.

Moreover, this method was chosen because it allows for the formation and refinement of theory via exploration once the underlying dimension(s) between variables and latent constructs are established (Williams, Brown & Onsman, 2012).

Three important decisions are required when conducting EFA with regards to how the analysis is performed (Tabachnick & Fidell, 2007). First, one must decide which method to use. Principal Axis Factoring (PAF) was chosen as it assesses the amount of independence between different construct dimensions (Burns & Burns, 2008). Second, in order to produce a more interpretable and parsimonious solution, rotation is required and the most appropriate rotation method needs to be determined (Kieffer, 1999). For this study, the standard direct oblimin rotation method was chosen as it allows for factors to be correlated with each other, and, as it is assumed that human behaviour, perceptions, beliefs and attitudes correlate with each other (Costello & Osborne, 2005). Third, two tests assessing the suitability of the data for factor analysis need to be performed, namely the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity (Pallant, 2005). The former assesses whether the data is appropriate for factor analysis by means of the KMO index. The index ranges from 0 to 1 where a score of at least 0.50 is considered appropriate (Tabachnick & Fidell, 2007). The latter, denoted by  $\chi^2$ , should indicate significance ( $p < .05$ ) as this demonstrates that the scale items are correlated.

As such, an evaluation of the scales' dimensionality and construct validity used in the present study was performed using PAF with a direct oblimin rotation and Kaiser normalisation. Only factors with eigenvalues greater than one, according to Kaiser's (1970) rule, were considered relevant and items with factor loadings greater than .30 were assumed to load on a factor (Tabachnick & Fidell, 2007).

In this study, the reliability of the scale was evaluated prior to evaluating the scales' validity. This is because reliability is a necessary but insufficient condition for validity. In other words, valid scales are reliable but reliable scales are not necessarily valid, and as such, a scale which is not reliable cannot be valid. The results are presented below.

**4.1.1 Experienced workplace incivility scale.** The scale measuring the experience of incivility at work consisted of 17 items. Reliability analysis on the scale revealed an excellent internal consistency (Cronbach  $\alpha = .91$ ;  $n = 188$ ). In addition, all scale items had sufficient corrected item-total correlations ( $.40 < r < .73$ ; see Appendix C, Table 1 for all corrected item-total correlations).

The Kaiser-Meyer-Olkin (KMO) measure (.90) was greater than .50 and Bartlett's test of sphericity ( $\chi^2_{136} = 1829.63$ ,  $p < .001$ ) was significant thereby confirming the data's aptness for further analysis. PAF was conducted on the 17 items. The rotated four factor solution that emerged is shown in Table 2.

Table 2

*Unrotated Eigenvalues, Explained Variances and Minimum and Maximum Factor Loadings for the 17 item Experienced Workplace Incivility Scale following Principal Axis Factoring (only factors with eigenvalues > 1 are provided)*

Factor	Eigenvalue	Explained Variance (%)	Minimum Factor Loading	Maximum Factor Loading
1	7.28	40.69	.39	.85
2	2.06	10.27	.32	.91
3	1.18	5.07	.38	.78
4	1.08	3.93	.56	.69

Rotation Method: Oblimin with Kaiser normalisation.

Rotation converged in 11 iterations.

Item 4 loaded on both the first and third factor and item 14 did not load on either of the four factors resulting in their exclusion from further analysis (refer to Appendix C, Table 2 for all factor loadings). A second PAF (KMO = .88,  $\chi^2_{105} = 1624.77$ ,  $p < .001$ ) was conducted without the two items which again revealed a four factor structure. All 15 items loaded on one of the four factors. A four factor structure had also been found by the scale developers, Martin and Hine (2005), who interpreted the factors as Hostility, Privacy Invasion, Exclusionary Behaviour and Gossiping. The present study confirms these findings given that items relating to the same factor in

Martin and Hine’s research also shared common variance in this study as shown in Table 3.

Table 3

*Unrotated Eigenvalues (EV), Explained Variances (in brackets) and Factor Loadings for the Reduced 15-item Experienced Workplace Incivility Scale following Principal Axis Factoring (only factors with eigenvalues > 1 are provided and factor loadings > .30)*

Item	<b>Hostility</b> EV: 1.17 (7.79%)	<b>Privacy</b> <b>Invasion</b> EV: 2.05 (13.65%)	<b>Exclusionary</b> <b>Behaviour</b> EV: 6.49 (43.28%)	<b>Gossiping</b> EV: 1.03 (6.85%)
Raised their voice while speaking to you	.75			
Used an inappropriate tone when speaking to you	.76			
Spoke to you in an aggressive tone of voice	.76			
Took stationery from your desk without later returning it		.82		
Took items from your desk without prior permission		.91		
Read communications addressed to you, such as e-mails or faxes		.32		
Opened your desk drawers without prior permission		.82		
Did not consult you in reference to a decision you should have been involved in			.60	
Avoided consulting you when they would normally be expected to do so			.72	
Was excessively slow in returning your phone messages or e-mails without good reason for the delay			.57	
Intentionally failed to pass on information which you should have been made aware			.70	
Were unreasonably slow in seeing to matters on which you were reliant on them for, without good reason			.56	
Made snide remarks about you				.56
Talked about you behind your back				.84
Gossiped behind your back				.80

Rotation Method: Oblimin with Kaiser normalisation.  
Rotation converged in 11 iterations.

Furthermore, significant correlations between the factors indicated that the factors shared sufficient variance providing preliminary evidence of one underlying workplace incivility factor. These correlations are shown in Table 4.

Table 4

*Factor Correlation Matrix for the 15-item Experienced Workplace Incivility Scale*

<b>Factor</b>	<b>1 Hostility</b>	<b>2 Privacy Invasion</b>	<b>3 Exclusionary Behaviour</b>	<b>4 Gossiping</b>
1		.33	.60	.54
2			.30	.31
3				.42

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser normalisation.

It was then tested if all 15 scale items could indeed be summarised by one higher order factor, and thus whether or not it could be assumed that the scale items had experienced workplace incivility as the underlying common dimension. For this reason, a PAF analysis was run including all 15 items but specifying the extraction of one factor. The analysis resulted in all of the items loading significantly on this factor (eigenvalue = 6.90; explained variance = 43.28%) as shown in Table 5, thus confirming the scale's appropriateness as an overall measure of experienced workplace incivility.

Table 5

*Factor Loadings for the Reduced 15-item Experienced Workplace Incivility Scale following Principal Axis Factoring (one factor extracted)*

<b>Item</b>	<b>Item Description</b>	<b>Factor Loading</b>
<i>In the last month, how often has a co-worker, subordinate or supervisor:</i>		
1	Raised their voice while speaking to you	.68
2	Used an inappropriate tone when speaking to you	.66
3	Spoke to you in an aggressive tone of voice	.73
5	Took stationery from your desk without later returning it	.39
6	Took items from your desk without prior permission	.46
7	Read communications addressed to you, such as e-mails or faxes	.42
8	Opened your desk drawers without prior permission	.44
9	Did not consult you in reference to a decision you should have been involved in	.66
10	Avoided consulting you when they would normally be expected to do so	.71
11	Was excessively slow in returning your phone messages or e-mails without good reason for the delay	.55
12	Intentionally failed to pass on information which you should have been made aware	.72
13	Were unreasonably slow in seeing to matters on which you were reliant on them for, without good reason	.54
15	Made snide remarks about you	.78
16	Talked about you behind your back	.75
17	Gossiped behind your back	.75

The 15-item scale demonstrated an excellent internal consistency ( $\alpha = .90$ ;  $n = 188$ ) with corrected item-total correlations of at least .40 (see Appendix C, Table 3 for all corrected item-total correlations). Given the above results, the scale was considered both a reliable and valid measure of experienced workplace incivility.

**4.1.2 Stress scale.** Half the items in Cohen et al's. (1983) 14-item Perceived Stress Scale required recoding, namely items 4, 5, 6, 7, 9, 10 and 13. After recoding these items, an initial reliability analysis revealed a good internal consistency (Cronbach  $\alpha = .87$ ;  $n = 188$ ). All but one of the items (item 12,  $r = .13$ ) showed sufficient corrected item-total correlations ( $.13 < r < .66$ , see Appendix D, Table 1 for all corrected item-total correlations). The removal of item 12 increased the internal consistency of the scale to  $\alpha = .88$  and it was thus excluded from further analysis (see Appendix D, Table 2 for all corrected item-total correlations).

After establishing the suitability of the data for factor analysis ( $KMO = .89$ ;  $\chi^2_{78} = 924.55$ ,  $p < .001$ ) PAF was conducted on the reduced 13-item scale in order to examine the scale's validity. It revealed two relevant factors. The first factor (eigenvalue = 1.51; explained variance = 7.41%) summarises the items describing positive states, while the second factor (eigenvalue = 5.42; explained variance = 37.64%) includes all negatively phrased, and thus reverse-coded, items. This factorial structure corresponds to the findings of Martin, Kazarian and Breiter (1995) and Hewitt, Flett and Mosher (1992) who went on to label these two factors as "perceived coping" and "perceived distress", respectively.

Significant correlations between the two factors indicated that the factors shared sufficient variance to suggest the existence of an underlying common dimension ( $r = -.60$ ). The present study seeks to account for a general, one dimensional, measure of how individuals perceive their level of stress. Given the shared variance among the two factors, a second PAF was conducted, specifying that a single factor be extracted, to confirm the scale's unidimensionality. The resulting single factor solution (eigenvalue = 5.27; explained variance = 40.52%) supports the scale's use as a

unidimensional stress measure given that all items displayed factor loadings of at least .49 as shown in Table 6.

Table 6

*Factor Loadings for the Reduced 13-item Perceived Stress Scale following Principal Axis Factoring (one factor extracted)*

Item	Item Description	Factor Loading
	<i>In the last month, how often have you:</i>	
1	Been upset because of something that happened unexpectedly?	.51
2	Felt that you were unable to control the important things in your life?	.58
3	Felt nervous and "stressed"?	.61
4*	Dealt successfully with irritating life hassles?	.49
5*	Felt that you were effectively coping with important changes that were occurring in your life?	.71
6*	Felt confident about your ability to handle your personal problems?	.68
7*	Felt that things were going your way?	.60
8	Found that you could not cope with all the things that you had to do?	.63
9*	Been able to control irritations in your life?	.52
10*	Felt that you were on top of things?	.73
11	Been angered because of things that happened that were outside of your control?	.57
13*	Been able to control the way you spend your time?	.52
14	Felt difficulties were piling up so high that you could not overcome them?	.69

Rotation Method: Oblimin with Kaiser normalisation. \*Recoded items.

4 iterations required.

**4.1.3 Turnover intention scale.** Bothma and Roodt's (2013) six-item turnover intention scale, adapted from the 15-item scale Roodt (2004) initially developed, was used to measure the participants' intention to leave or stay with their respective organisations. Item 2 and item 6 were phrased in a positive direction and needed to be reverse scored so that a high score always indicated a high propensity to leave the organisation. Thereafter, reliability analysis on the scale revealed a good internal consistency (Cronbach  $\alpha = .87$ ,  $n = 188$ ) with acceptable corrected item-total correlations ( $.58 < r < .82$ ; see Appendix E, Table 1 for all corrected item-total correlations).

A PAF analysis was conducted including the six items. The KMO score (.86) supported the analysis together with a significant Bartlett's test ( $\chi^2_{15} = 565.15$ ,  $p < .001$ ). One factor with an eigenvalue of above 1 emerged (eigenvalue = 3.74; explained variance = 55.55%) with a minimum factor loading of .63 and a maximum

factor loading of .89, thus confirming the expected unidimensionality of the scale as shown in a previous study (Bothma & Roodt, 2013). The factor loadings for each item are shown in Table 7 below.

Table 7

*Factor Loadings for the 6-item Turnover Intention Scale following Principal Axis Factoring*

Item	Item Description	Factor Loading
1	How often have you considered leaving your job?	.84
2*	To what extent is your current job satisfying your personal needs?	.63
3	How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?	.64
4	How often do you dream about getting another job that will better suit your personal needs?	.89
5	How likely are you to accept another job at the same compensation and level should it be offered to you?	.65
6*	How often do you look forward to another day at work?	.78

Rotation Method: Oblimin with Kaiser normalisation.

\*Items reverse-scored. One factor extracted. 6 iterations required.

**4.1.4 Psychological capital scale.** Three items in the PCQ-24 were phrased negatively and required reverse coding (item 13, 20 and 23). The scale had an excellent internal consistency (Cronbach  $\alpha = .91$ ). Two items with low corrected item-total correlations were found to be problematic and hence excluded from further analysis, namely item 15 (“I can be ‘on my own’ so to speak at work if I have to”;  $r = .16$ ), and item 20 (“If something can go wrong for me work-wise it will”;  $r = .19$ , refer to Appendix F, Table 1 for all corrected item-total correlations). The exclusion of these items did not change the internal consistency of the scale, however, an additional item (23) now showed a corrected item-total correlation below .30. This item (“In this job, things never work out the way I want them to”;  $r = .27$ ) was deleted and the internal consistency of the reduced 21-item scale was again shown to be very good ( $\alpha = .92$ ). All items correlated sufficiently with the scale total ( $.33 < r < .68$ ; refer to Appendix F, Table 2 for all corrected item-total correlations).

It is important to note here that two of the three problematic items were reverse-scored (items 20 and 23). According to Schmitt and Stults (1985), reverse-scored items are known to reduce the reliability of a scale due to response bias. Response bias is a common source of method bias related to self-report measures such as survey questionnaires which can potentially negatively skew the results. The findings in this study support those of Görgens-Ekermans and Herbert's (2013) South African study which aimed to validate the PCQ-24 which also showed low corrected item-total correlations for the same two reverse-scored items under consideration. Other local studies conducted by Dehrmann (2012) and Gooty, Gavin, Johnson, Frazier and Snow (2009) found similar results regarding the reverse scored items on the PCQ-24 supporting Görgens-Ekermans and Herbert's suggestion that response bias might be a measurement challenge in South African samples.

The PCQ-24 was developed as a four dimensional scale with PsyCap being the overarching factor (Luthans et al., 2007). This factor structure could not be replicated in this study's dataset. In total, six rounds of EFA were required until an interpretable factor structure was found. In each round specific problematic items were deleted, until the scale was reduced to roughly half its original length. The findings of each of the six rounds are presented below.

**Round 1.** A KMO score of .91 together with a significant Bartlett's test ( $\chi^2_{210} = 1635.93, p < .001$ ) supported the appropriateness for a PAF analysis across the 21 scale items. Five factors with eigenvalues above 1 emerged, the results of which are summarised in Table 8.

Table 8

*Unrotated Eigenvalues and Explained Variances for the 21 item Psychological Capital Scale following Principal Axis Factoring*

Factor	Eigenvalue	Explained Variance (%)
1	8.05	36.10
2	1.35	4.23
3	1.28	3.92
4	1.07	2.89
5	1.02	2.26

Rotation Method: Oblimin with Kaiser normalisation.

Item 17 did not load on either of the five factors and was therefore omitted (refer to Appendix F, Table 3 for all factor loadings).

**Round 2.** The PAF without item 17 ( $KMO = .92$ ,  $\chi^2_{190} = 1592.79$ ,  $p < .001$ ) revealed four factors as shown in Table 9 (see Appendix F, Table 4 for all factor loadings).

Table 9

*Unrotated Eigenvalues and Explained Variances for the 20 item Psychological Capital Scale following Principal Axis Factoring (only factors with eigenvalues > 1 are provided).*

Factor	Eigenvalue	Explained Variance (%)
1	7.93	37.18
2	1.33	4.36
3	1.27	3.95
4	1.07	2.88

Rotation Method: Oblimin with Kaiser normalisation. 16 iterations required.

Of the 20 items, items 1 and 5 did not load on any of the factors and were thus excluded.

**Round 3.** The third PAF ( $KMO = .91$ ,  $\chi^2_{153} = 1401.63$ ,  $p < .001$ ) across the 18 items again revealed four factors as described in Table 10.

Table 10

*Unrotated Eigenvalues and Explained Variances for the 18 item Psychological Capital Scale following Principal Axis Factoring (only factors with eigenvalues > 1 are provided).*

Factor	Eigenvalue	Explained Variance (%)
1	7.23	37.44
2	1.32	4.78
3	1.26	4.19
4	1.05	2.88

Rotation Method: Oblimin with Kaiser normalisation. Criteria: Maximum of 60 iterations.

All items loaded on at least one factor, however, items 9, 11 and 21 cross-loaded on two factors (see Appendix F, Table 5 for all factor loadings). These items were therefore excluded.

**Round 4.** The PAF analysis ( $KMO = .89$ ,  $\chi^2_{105} = 1018.38$ ,  $p < .001$ ) across the 15 items again revealed four factors as described in Table 11.

Table 11

*Unrotated Eigenvalues and Explained Variances for the 15 item Psychological Capital Scale following Principal Axis Factoring (only factors with eigenvalues > 1 are provided).*

Factor	Eigenvalue	Explained Variance (%)
1	5.95	36.21
2	1.22	4.97
3	1.13	4.02

Rotation Method: Oblimin with Kaiser normalisation. Criteria: Maximum of 60 iterations.

All items loaded on at least one factor with the exception of item 4 which loaded on both factor 2 and factor 3 (see Appendix F, Table 6 for all factor loadings). This item was omitted.

**Round 5.** The PAF results ( $KMO = .88$ ,  $\chi^2_{91} = 908.31$ ,  $p < .001$ ) across the 14 items revealed a three factor structure as described in Table 12.

Table 12

*Unrotated Eigenvalues, Explained Variances and Factor Loadings for the 14 item Psychological Capital Scale following Principal Axis Factoring (only factors with eigenvalues > 1 are provided).*

Item	Item Description	Resilience* & Optimism** EV: 5.47 (35.30%)	Self-efficacy EV: 1.20 (5.24%)	Hope EV: 1.10 (4.11%)
7	If I should find myself in a jam at work, I could think of many ways to get out of it.	.35		
13*	When I have a setback at work, I have trouble recovering from it and moving on.	.31		
14*	I usually manage difficulties one way or another at work.	.68		
16*	I usually take stressful things at work in stride.	.50		
18*	I feel I can handle many things at a time at this job.	.69		
19**	When things are uncertain for me at work I usually expect the best.	.46		
22**	I'm optimistic about what will happen to me in the future as it pertains to work.	.34		
24**	I approach this job as if "every cloud has a silver lining".	.58		
2	I feel confident in representing my work area in meetings with management.		-.64	
3	I feel confident contributing to discussions about the company's strategy.		-.71	
6	I feel confident presenting information to a group of colleagues.		-.79	
8	At the present time, I am energetically pursuing my work goals.			-.63
10	Right now I see myself as being pretty successful at work.			-.74
12	At this time, I am meeting the work goals that I have set for myself.			-.63

Rotation Method: Oblimin with Kaiser normalisation. Criteria: Maximum of 60 iterations.

Note: EV = eigenvalue

In this solution, item 7 had been developed by Luthans et al. (2007) as an item belonging to the sub-construct Hope. It thus did not fit with the factor it loaded on (Resilience and Optimism). For this reason it was excluded and a final PAF was performed on the remaining scale items.

**Round 6.** The PAF analysis ( $KMO = .88$ ,  $\chi^2_{91} = 869.51$ ,  $p < .001$ ) across the remaining 13 items revealed three factors and all items loaded significantly on one factor as indicated in Table 13.

Table 13

*Unrotated Eigenvalues, Explained Variances (in brackets) and Factor Loadings for the 13 item Psychological Capital Scale following Principal Axis Factoring (only factors with eigenvalues > 1 are provided).*

Item	Item Description	*Resilience and **Optimism EV: 5.22 (40.22%)	Self-efficacy EV: 1.17 (9.02%)	Hope EV: 1.08 (8.32%)
13*	When I have a setback at work, I have trouble recovering from it and moving on.	.36		
14*	I usually manage difficulties one way or another at work.	.61		
16*	I usually take stressful things at work in stride.	.54		
18*	I feel I can handle many things at a time at this job.	.71		
19**	When things are uncertain for me at work I usually expect the best.	.49		
22**	I'm optimistic about what will happen to me in the future as it pertains to work.	.34		
24**	I approach this job as if "every cloud has a silver lining".	.60		
2	I feel confident in representing my work area in meetings with management.		-.69	
3	I feel confident contributing to discussions about the company's strategy.		-.70	
6	I feel confident presenting information to a group of colleagues.		-.77	
8	At the present time, I am energetically pursuing my work goals.			-.61
10	Right now I see myself as being pretty successful at work.			-.77
12	At this time, I am meeting the work goals that I have set for myself.			-.63

Rotation Method: Oblimin with Kaiser normalization. Criteria: Maximum of 60 iterations.

Note: EV = eigenvalue

Given that an overall score for PsyCap is required for the second set of hypotheses in the present study, a final PAF was performed on the reduced 13 items, this time forcing the extraction of just one factor. The KMO score (.88) was adequate and Bartlett's test of sphericity significant ( $\chi^2_{105} = 1624.77, p < .001$ ) warranting that the data was suitable for factor analysis. The analysis resulted in all of the items loading significantly on the one extracted factor (eigenvalue = 5.23; explained variance = 35.37%) with a minimum factor loading of .53 and a maximum factor loading of .74 thus confirming the scale's appropriateness as an overall measure of PsyCap (see Appendix F, Table 7 for all factor loadings).

The reduced 13-item scale demonstrated a good internal consistency ( $\alpha = .87$ ;  $n = 188$ ) with significant corrected item-total correlations for each item ( $.48 < r < .66$ ; see Appendix F, Table 8 for all corrected item-total correlations). Therefore the reduced scale was considered reliable and valid.

## 4.2 Descriptive Statistics

This section presents the descriptive statistics for each of the scales included in the study. As all scales had been shown to be unidimensional, the items on each scale were averaged into one overall scale score per participant. For each measurement scale, the number of participants, the mean score and standard deviation, minimum and maximum scores and skewness and kurtosis are reported on. Skewness and kurtosis scores can be positive or negative and offer evidence of the distribution of scores, where the former indicates the distribution's symmetry and the latter indicates the relative height of the distribution (Pallant, 2005).

The responses to all of the items were captured on a 5-point Likert scale. Therefore, the scales mean score was assessed in relation to the scales midpoint of 3. An average score greater than 3 indicates a higher degree of the variable being measured whereas an average score lower than the midpoint indicates lower levels of the variable.

Table 14

*Mean, Standard Deviation (SD), Minimum (Min), Maximum (Max) and Skewness and Kurtosis (With Corresponding Standard Error (SE)) for each of the Scales included in the Study*

	Mean	SD	Min	Max	Skewness	SE Skewness	Kurtosis	SE Kurtosis
Workplace Incivility	2.07	.65	1.00	3.85	.44	.18	-.46	.36
Hostility	2.00	.85	1.00	4.67	.67	.18	-.24	.36
Privacy Invasion	1.64	.80	1.00	4.33	1.41	.18	1.56	.36
Exclusionary Behaviour	2.27	.75	1.00	4.20	.47	.18	-.38	.36
Gossiping	2.15	.94	1.00	5.00	.72	.18	.09	.36
Perceived Stress	2.68	.53	1.38	4.00	-.09	.18	-.57	.36
Turnover Intention	2.83	.98	1.00	5.00	.09	.18	-1.00	.36
PsyCap	3.81	.55	1.00	3.43	.15	.18	-.31	.36
Resilience and Optimism	3.72	.56	1.00	4.14	.33	.18	.43	.35
Self-Efficacy	4.05	.75	1.00	5.00	.82	.18	1.03	.35
Hope	3.69	.74	1.00	4.67	.60	.18	.12	.35

Note.  $N = 188$ ; SD = standard deviation; SE = standard error

From Table 14 it can be seen that although some participants did experience some degree of incivility at work, in general, participants reported their experience of workplace incivility as rare indicated by an average score of 2.07. The different sources of experienced workplace incivility illustrate that exclusionary behaviour and gossiping were experienced more frequently than hostility and privacy invasion, even though these average scores were below the scale midpoint indicating that they were rarely experienced. The mean scores for both the perceived stress scale and the turnover intention scale are also below the midpoint indicating that, on average, participants perceived themselves as having relatively little stress and little intention to leave the organisation they were employed at, if at all. Finally, the mean score on the PsyCap measurement scale indicate that the participants in the study had, in general, quite high levels of the psychological resource given an average score of 3.81. With reference to the different sub constructs of PsyCap, participants most highly possessed self-efficacy indicated by an average score of 4.05.

### **4.3 Hypotheses**

As stated in Chapter Two, the present study aims to test two sets of hypotheses. This section presents the results related to each of the hypotheses as follows:

#### Hypotheses 1

- (a) Experienced workplace incivility is positively related to stress.
- (b) Experienced workplace incivility is positively related to turnover intentions.

#### Hypotheses 2

- (a) The positive relationship between workplace incivility and stress is stronger for employees low in PsyCap than for employees high in PsyCap.
- (b) The positive relationship between workplace incivility and turnover intention is stronger for employees low in PsyCap than for employees high in PsyCap.

**4.3.1 Hypotheses 1: Relationships between variables.** In order to test if the relationships between experienced workplace incivility and stress (1a) and experienced workplace incivility and turnover intention (1b) were statistically significant, the most appropriate statistical procedure needed to be identified by first investigating certain assumptions relating to the data, namely those of normality and linearity. Normality refers to the distribution of the data. The Kolmogorov-Smirnov test revealed all variables were non-normally distributed given its significant results as summarised in Table 15 below.

Table 15

*Kolmogorov-Smirnov Test Statistics for Study Variables*  
(\*\*\* =  $p < .001$ )

	Statistic
Workplace Incivility	$D_{183} = .09^{***}$
Perceived Stress	$D_{183} = .09^{***}$
Turnover Intention	$D_{183} = .11^{***}$
PsyCap	$D_{183} = .07^{***}$
Hostility	$D_{183} = .15^{***}$
Privacy Invasion	$D_{183} = .24^{***}$
Exclusionary Behaviour	$D_{183} = .14^{***}$
Gossiping	$D_{183} = .14^{***}$

Next, the bivariate scatterplots were assessed to determine whether there were linear relationships. No deviations from linearity were found (see Appendix G, Figures 1 and 2 for scatterplots). Given that the variables under consideration were continuous and that a non-normal linear relationship was found, Spearman's rho was used to test the hypotheses. These results are presented in Table 16.

Table 16

*Spearman's Correlation Coefficient between Variables*

Measure	1	2	3	4
1. Workplace Incivility		.30**	.44**	-.28**
2. Perceived Stress			.37**	-.55**
3. Turnover intention				-.46**
4. Psychological Capital				

\*\*Correlation is significant at the 0.01 level (2-tailed),  $N = 188$

Table 16 demonstrates that, as was hypothesised, the correlations between experienced workplace incivility and perceived stress and experienced workplace incivility and turnover intention were positive and significant. Experienced workplace incivility explained 9% of the variance in respondents' scores on the perceived stress scale and 19.36% of the variance in respondents' scores on the turnover intention scale. Support therefore was found for both hypothesis 1a and 1b. The size of the Spearman correlation coefficient provides an indication of the strength of the relationship between the variables, where a perfect positive correlation is equal to 1 and no relationship is denoted by a value of 0. In this instance, hypothesis 1b reveals a stronger relationship as opposed to hypothesis 1a; the higher the experience of incivility in the workplace the greater the level of turnover intention is likely to result. According to Cohen (1988), positive correlation coefficients ranging from .30 and .49 indicate a moderate relationship between variables. As such there was a moderate, positive correlation between the experience of incivility at work and stress and the experience of incivility at work and turnover intention. In other words, increases in experiences of workplace incivility were correlated with increases in both stress and turnover intentions.

**4.3.2 Hypothesis 2: The moderating effect of psychological capital.** To explore whether PsyCap acts as a moderator in both the experienced incivility-stress relationship and the experienced incivility-turnover intention relationship, two multiple regression analyses were conducted including workplace incivility, PsyCap and the interaction between the two variables as independent variables and stress and turnover intention as the respective dependent variable in each analysis. An interaction effect will exist when the impact of one independent variable (workplace incivility) depends on the value of another independent variable (PsyCap) (Lewis-Beck, 1980). The specific type of regression used to measure the interaction effect involves forming a multiplicative term,  $X_1X_2$  (in this case multiplying the experienced incivility score with the PsyCap score), and creating a new variable, in the present study named  $Wl \times PsyCap$ , where WI denotes Workplace Incivility (experienced). Two moderated regression analyses were required to test hypotheses 2a and 2b. WI, PsyCap and  $Wl \times PsyCap$  (PsyCap as moderator) were entered as

independent variables in each regression analysis where stress (Hypothesis 2a) served as a dependent variable in the one analysis and turnover intention (Hypothesis 2b) as dependent variable in the other analysis. In order to improve the interpretation of the results and to avoid multicollinearity, the mean centring technique was employed prior to the regression analysis. According to the procedures outlined by Cohen, Cohen, West and Aiken (2003), the independent (predictor and moderator) variables were centred by subtracting the mean from each individual score after which a centred interaction term was created by multiplying both the centred independent variables.

Prior to conducting the multiple linear regression, the data was screened for possible violations of required assumptions according to those posited by Field (2009). Each of the assumptions are discussed in turn below followed by a summary of the regression results.

***Multicollinearity.*** Multicollinearity refers to the relationship among the independent variables. In instances when the independent variables are highly correlated ( $r > .90$ ), multicollinearity exists (Tabachnick & Fidell, 2007). Multicollinearity may adversely affect regression statistics and thereby lead to inaccurate regression coefficient estimates (Pedhazur, 1997). The correlation analysis presented above showed that the bivariate correlations between PsyCap and workplace incivility were lower than .90, providing preliminary evidence that there was no multicollinearity. To further rule out multicollinearity, an assessment of both the Tolerance Values (TV) and Variance Inflation Factors (VIF) was conducted. Field (2009) asserts that a VIF exceeding 10 and a TV below .1 indicate a serious problem. The VIF's and TV's reported in this study for all three independent variables are as follows: workplace incivility (VIF = 1.07, TV = .94), PsyCap (VIF = 1.07, TV = .93) and the interaction term (VIF = 1.01, TV = .99). Consequently, multicollinearity was not an issue in the data.

***Sample size.*** In order to produce valuable results which can be generalised to the population, Tabachnick and Fidell (2007) provide a formula for calculating

sample size requirements as follows:  $N > 50 + 8m$  (where  $m$  = number of independent variables). Using this formula to calculate the minimum sample size required for the present study provides a required sample size of 74 given three independent variables. The study's sample size exceeds this minimum requirement by 114, thus meeting the sample size requirements.

***Homoscedasticity and linearity.*** The assumption of homoscedasticity implies that the range of residuals, at each point along a predictor variable, should be fairly constant (Field, 2009). To test this assumption, the plot of standardized residuals against standardized predicted values was examined. Both plots (refer to Appendix G, Figure 3 and 4) showed a relatively normal array of points around zero that were evenly dispersed, indicating that the assumption in question had been met (Field, 2009).

***Normality.*** This assumption was tested via examination of the unstandardized residuals. A symmetrical and approximately bell-shaped histogram and a fairly even line on the P-P Plot indicated that no violation of the assumption had occurred (refer to Appendix G, Figure 5 and 6 for Histograms and Figure 7 and 8 for P-P Plots).

***Independent errors.*** The relatively random display of points in the scatterplot of studentized residuals against values of the independent variable provided preliminary evidence of independence. Further support of the assumption was indicated by the acceptable Durbin-Watson statistics. Field (2009) asserts that values between 1 and 3 indicate that the assumption of independent errors is tenable. The Durbin-Watson statistic in the regression models were as follows: perceived stress as dependent variable = 2.14; turnover intention as dependent variable = 1.85. These results provide evidence that the assumption was met.

**4.3.3 Results of regression analyses.** The results of the moderated multiple regression partially supported the hypotheses. In both instances experienced workplace incivility and PsyCap explained a significant amount of variance in stress and turnover intention (adjusted  $R^2 = .34$  and adjusted  $R^2 = .33$  respectively). Both

experienced workplace incivility ( $\beta = .19$  and  $\beta = .34$ ) and PsyCap ( $\beta = -.52$  and  $\beta = -.38$ ) were significant predictors of stress and turnover intention respectively (see Table 17). These results indicate that more frequent exposure to workplace incivility was associated with higher levels of stress and turnover intention and, conversely, PsyCap was negatively related to higher levels of stress and turnover intention.

Table 17

*Coefficients of Variables Resulting from Moderated Multiple Regression Analysis with WI, PsyCap and WIXPsyCap as Independent and 2a (stress) and 2b (turnover intention) as Dependent Variables*

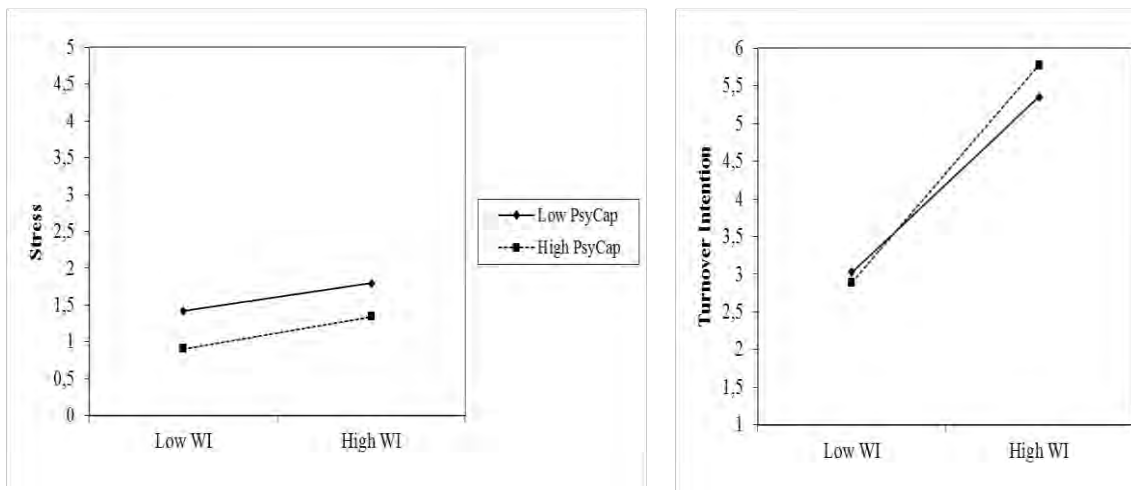
Hypothesis ( $n = 188$ )	Unstandardised Coefficients		Standardised Coefficients	$t$
	$b$	Std. Error	$\beta$	
2a (Constant)	2.70	.03		80.4***
Workplace Incivility (WI)	.16	.05	.19	3.05*
Psychological Capital (PsyCap)	-.52	.06	-.52	-8.46***
WI x PsyCap	.04	.10	.03	.42
2b (Constant)	2.87	.06		47.09***
Workplace Incivility (WI)	.52	.10	.34	5.47***
Psychological Capital (PsyCap)	-.68	.11	-.38	-6.10***
WI x PsyCap	.39	.18	.13	2.12*

*Note.* 2(a) = stress as dependant variable. 2(b) = turnover intention as dependant variable.

\* < .05, \*\*\*  $p < .001$

Regarding the moderating effects, it had been proposed that PsyCap would moderate the experienced incivility-stress relationship and the experienced incivility-turnover intention relationship. Contradictory support was found for this model. PsyCap did not moderate the relationship between workplace incivility and stress, indicating that participants' general level of PsyCap did not influence the strength or nature of the relationship between the degree to which employees perceive their lives as stressful and the degree to which they have encountered incivility at work. PsyCap did serve as a moderator in the relationship between workplace incivility and turnover intention ( $\beta = .13$ ), however.

In an attempt to clarify the nature of the moderating effect, the interaction was plotted using the unstandardised regression coefficients of the regression lines for participants high (1 *SD* above the mean) and low (1 *SD* below the mean) in the moderating variable. This method is based on Aiken and West's (1999) approach. A graphical representation of these interactions is provided in Figure 1.



*Figure 1.* Moderating Effect of PsyCap on the Workplace Incivility-Stress Relationship (left graph) and the Workplace Incivility-Turnover Intention Relationship (right graph). Note: WI = Workplace Incivility (experienced).

From the illustration on the left, it can be seen that individuals low in PsyCap experience higher levels of stress compared to those high in PsyCap and, furthermore, individuals that experience high levels of workplace incivility experience slightly higher levels of stress. Together, this indicates that the greater the exposure to workplace incivility, the higher employees perceive their level of stress regardless of their level of PsyCap. Hypothesis 2a which suggested that those individuals low in PsyCap would experience higher levels of stress as a result of more frequent exposure to workplace incivility is thus not supported.

The illustration on the right indicates that individuals low in PsyCap experience marginally higher levels of turnover intention compared to those high in PsyCap when the experience of workplace incivility is low. Individuals who are high and low in their level of PsyCap display the same level of turnover intention when experienced workplace incivility is slightly higher indicating that the level of PsyCap plays no

role. However, when experienced workplace incivility is high, individuals who are high in their level of PsyCap display slightly higher levels of turnover intention compared to those low in PsyCap. In contrast to the illustration on the left, the right figure shows that PsyCap plays an influential role in employees' level of turnover intention as a result of experiencing higher levels of workplace incivility. Hypothesis 2b was therefore supported. The regression model was checked to see whether any unusual cases existed which could substantially influence the results of the regression analyses. In order to do so the standardised residuals of all cases were scrutinised and interpreted according to the guidelines proposed by Field (2009). Regarding the regression for both hypothesis 2a and 2b, all standardised residuals were below 3.29. A further 1.1% of the cases (2 cases) had standardised residuals with an absolute value greater than 2.58 (2.68; 2.72) for hypothesis 2a, whereas for hypothesis 2b, 0.5% of the cases (one case) had standardised residuals greater than 2.58 (2.66). Ideally, no more than 1% of cases should exceed the value of 2.58, however, regarding hypothesis 2a, the two cases only slightly exceeded then 1% level and were thus retained deeming the level of error in both the regression models as acceptable. Finally, less than 5% of the cases had standardised residuals greater than 1.96 (3.72% for hypothesis 2a, 2.12% for hypothesis 2b, see Appendix H, Table 1 for all standardised residual values) indicating, preliminary, that the model is a good representation of the data.

The Mahalanobis distance was then assessed which measures the influence of a case by exploring the distance of cases relative to the mean of a predictor variable (Field, 2009). The Mahalanobis distance should fall below a critical value in order not to have too much influence on the regression model. In the present study, the guidelines provided for by Barnett and Lewis (1978) were followed, and, as such, values above 18.42 (based on samples of 200 with three predictor variables at  $p < .05$ ) indicated influential cases. Three cases exceeded the critical value of 18.42 (case 38 = 19.73, case 61 = 24.94 and case 166 = 18.72, refer to Appendix H, Table 1 for all Mahalanobis distance values). These three cases were thus considered to possibly exert excessive influence on the results. Hence, a second regression analysis was

conducted with the exclusion of these cases ( $n = 185$ ). The results of the regression analysis are presented in Table 18 below.

Table 18

*Coefficients of Variables Resulting from Moderated Multiple Regression Analysis with WI, PsyCap and WlxPsyCap as Independent and 2a (stress) and 2b (turnover intention) as Dependent Variables*

Hypothesis ( $n = 185$ )	Unstandardised Coefficients		Standardised Coefficients	$t$
	$b$	Std. Error	$\beta$	
2(a) (Constant)	2.70	.03		78.45***
Workplace Incivility (WI)	.17	.06	.19	3.04*
Psychological Capital (PsyCap)	-.51	.06	-.51	-8.15***
WI x PsyCap	.01	.12	.01	.12
2(b) (Constant)	2.86	.06		46.29***
Workplace Incivility (WI)	.57	.10	.36	5.69***
Psychological Capital (PsyCap)	-.67	.11	-.37	-5.87***
WI x PsyCap	.22	.21	.07	1.06

Note. 2(a) = stress as dependant variable. 2(b) = turnover intention as dependant variable.

\* < .05, \*\*\*  $p < .001$

The results of the second moderated multiple regression did not support the hypotheses. Similar to the first regression analyses, in both instances, experienced workplace incivility and PsyCap explain a significant amount of variance in stress and turnover intention (adjusted  $R^2 = .33$  for both). Furthermore, both experienced workplace incivility ( $\beta = .19$  and  $\beta = .36$ ) and PsyCap ( $\beta = -.51$  and  $\beta = -.37$ ) were significant predictors of stress and turnover intention respectively. PsyCap did not moderate the proposed relationship between workplace incivility and turnover intention as had been found in the first regression analysis. This suggests that the significant interaction in the initial regression analysis appears to have been caused by the three extreme cases. Although the interaction effect was not supported once extreme cases had been excluded from the analysis, it is valuable to note that the role of PsyCap did trend towards significance. A depiction of the interaction with the reduced sample is provided below in Figure 2.

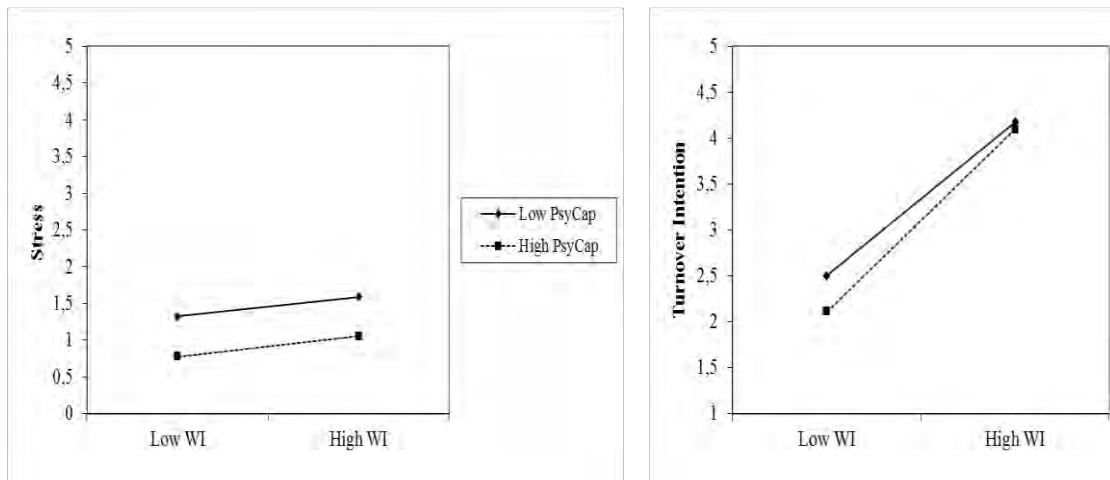


Figure 2. Moderating Effect of PsyCap on the Workplace Incivility-Stress Relationship (left graph) and the Workplace Incivility-Turnover Intention Relationship (right graph). Note: WI = Workplace Incivility (experienced).  $N = 185$ .

## **Chapter 5: Discussion**

In this chapter a summary of the main findings will be provided, followed by a discussion of the results. An overview of the study's limitations and further recommendations then follow before concluding remarks bring this dissertation to an end.

### **5.1 Summary of Main Findings**

This study sought to explore the prevalence of workplace incivility, as experienced by employees in South African organisations. Despite being a relatively new addition to the literature concerned with negative workplace behaviour, incivility has earned an explicit position alongside other, albeit more overt, forms of negative workplace behaviour such as aggression, violence and bullying (Schilpzand et al., 2014). The study's main aim was to investigate if stress was related to this mild form of mistreatment and thus a possible consequence as a result of having experienced it. In addition to exploring this relationship, the study sought to establish whether turnover intentions were related to experienced workplace incivility. Secondly, it was hypothesised that PsyCap would moderate the effects of the proposed relationships. More specifically, it was assumed that employees higher in the psychological resource, PsyCap, would have lower levels of stress and turnover intention. The results of the present study aims are presented below after which a discussion of them follows.

**5.1.1 Hypotheses 1 – Effects of experienced workplace incivility.** As expected, the results show that some employees experienced instances of uncivil behaviour at work, although the overall level of experienced workplace incivility in the sample was low. The types of incivility encountered most frequently were gossiping and exclusionary behaviour, while hostility and privacy invasion were experienced less frequently. The results indicated that employees perceive their lives as more stressful the more incivility at work they experience. Hypothesis 1 was therefore supported. Support was also found for the second hypothesis: employees

display higher levels of turnover intention the more uncivil workplace experiences they encounter.

**5.1.2 Hypotheses 2 – Moderating role of psychological capital.** In contrast to what was expected, PsyCap did not influence the incivility-stress relationship. It was found that higher levels of experienced incivility lead to higher levels of stress, regardless of whether employees have low or high levels of PsyCap. Hypothesis 2a was therefore not supported. Interestingly, employees' level of PsyCap did influence the relationship between the frequency of workplace incivility and turnover intention. The relationship was stronger for those employees who are high in PsyCap when compared with employees who are low in PsyCap. This finding contradicts what was expected as it was anticipated that the relationship between workplace incivility and turnover intention would be weaker among employees high in PsyCap. Noteworthy is the fact that this finding only held true when the sample included extreme cases. Once the extreme cases had been excluded from the study the interaction disappeared. In summation, partial support was found for the buffering effect of PsyCap in the incivility-turnover intention relationship only, however, in an opposite way to that which was initially anticipated.

## **5.2 Discussion of Results**

The results showed that just under one half of the participants reported that they had been targets of workplace incivility more than once over the last year. While this suggests that the incidence of incivility in South Africa is rather low, it is possible that the frequency is in fact under reported. This is because frequently targeted employees of uncivil behaviour might not have wanted to participate in the survey as a way of either avoiding the source of uncivil behaviour or intentionally not cooperating as a way of spiting the other. For example, if a co-worker or supervisor, either agents of uncivil behaviour, requested that employees in their environment completed the survey, those employees who are direct victims of their uncivil behaviour could have ignored the request intentionally so as to not cooperate or simply avoided taking action upon the request. Both Lim and Cortina (2005) and Martin and Hine (2005)

provide empirical support that experiencing workplace incivility is associated with job withdrawal behaviour. This outcome eludes to a further reason why the reported frequency of incivility might have been low. It is reasonable to assume then that individuals who experienced high levels of workplace incivility might display such withdrawal behaviour and perhaps not want to take on any extra work such as completing the survey for this research.

The positive relationship between experienced incivility and stress is in line with prior research. In a study conducted using a large and representative US sample of public sector employees, for example, Cortina et al. (2001) found that as uncivil workplace experiences became more frequent, the levels of psychological distress (symptoms of depression and anxiety) increased. Similar findings were reported by Adams and Webster (2013) and Miner, Settles, Pryatt-Hyatt and Brady (2012) who provide further empirical support for the study's findings that incivility at work is a classic workplace stressor. However, it is not possible to conclude this with certainty given that the study's descriptive design did not allow for inferences to be drawn regarding cause and effect. As such, it could be argued that employees experiencing uncivil behaviour are generally more stressed which causes their interpretation of the behaviour as negative whereas less stressed or more balanced employees would not take notice of such subtle and ambiguous behaviours. In other words, it is possible that employees who are stressed report higher levels of workplace incivility, exactly because they are stressed. Stressed individuals might interpret behaviour more easily as more deliberate than individuals with low stress levels, who might rather interpret others' behaviour as unintended. Further to this, it is possible that employees were somewhat sensitive to encountering what they may have believed to be uncivil behaviour when the behaviour may not actually have been so at all. A possible reason why this could be the case in the present study can be found in the sources of incivility that are most frequently reported by employees, namely those relating to exclusionary behaviour and gossiping. The other sources which were reported less, namely, hostility and privacy invasion, can be considered more direct instances of incivility which are likely to be more easily interpreted as inappropriate. Although workplace incivility is characteristically ambiguous in its intent to do harm and

sometimes the result of ignorance or oversight on the part of the instigator, it is possible that employees reporting exclusionary behaviour and gossiping as sources of uncivil behaviour could have interpreted the behaviour as uncivil which others might have not. If this is the case, it is conceivable that high stress leads to experienced incivility. In order to explore this link future research could investigate the causal relationship between stress and experienced workplace incivility. Research using an experimental pre-test post-test design in which employees are matched according to their stress and PsyCap levels and then grouped into a treatment and control group would be useful in this regard. The treatment group would then receive an intervention aimed at reducing stress and the control group would receive no intervention. Data collected before and after the intervention can then provide insight about cause and effect.

Reference here also needs to be made to the stress scale used in this study. The scale measures *general* stress levels and not occupational stress in particular. Given this study's findings, this suggests that experiencing workplace incivility is related to general feelings of stress and not just stress at work. This indicates that uncivil behaviour emanating from the workplace could have wider implications for the individuals who experience incivility – or, as previously outlined, it could be that individuals who are stressed in general, not just in relation to their work, are more likely to interpret behaviour as uncivil.

The findings also showed that employees have greater turnover intentions the more frequently they encounter uncivil behaviour at work. A possible reason for this is that uncivil behaviour creates an unpleasant working environment which may lead employees to consider leaving the organisation in pursuit of a more conducive work environment. Indeed, Cortina et al. (2001), found that greater experienced workplace incivility was related to lower job satisfaction and higher turnover intention providing support for this claim. Similar findings were reported by Smith, Andrusyszyn and Spence Laschinger (2010) who surveyed new graduate nurses and found that experienced incivility was a significant predictor of turnover intentions. Numerous other studies provide further empirical support for the finding that incivility at work is associated with higher levels of turnover intention (Cortina et al., 2013; Griffin, 2010;

Spence Laschinger et al., 2009; Walsh et al., 2013). In South Africa, no research has examined the relationship between experienced incivility and turnover intentions. However, in a study conducted on a large South African sample, Van Schalkwyk et al. (2011) found that turnover intention was related to experiencing workplace bullying which supports this study's finding that turnover intention is related to negative workplace behaviour. This result is practically relevant because it provides a possible reason why employees may be considering leaving their organisation which can therefore be taken into account by employers before employees display actual exit behaviour.

A possible reason why employees who display turnover intentions experience higher workplace incivility is as follows. Given that these employees have decided to leave the organisation, they might be more disengaged and show less organisational citizenship behaviour. Workplace incivility towards them could therefore likely be a response to their own behaviour. Alternatively, employees who intend on leaving the organisation could entertain reasons which would support their intention. For example, employees may interpret behaviour as uncivil which others would not necessarily interpret as so in order to justify their intention to leave the organisation. Festinger's (1957) cognitive dissonance theory provides an explanation for this. Cognitive dissonance theory holds that inconsistent cognitions resulting from a change in one's attitudes, beliefs or behaviour causes psychological discomfort (dissonance) which motivates individuals to restore consistency of their beliefs, attitudes or behaviours. In other words, individuals usually experience an uncomfortable feeling when they act in a manner that is in opposition to their beliefs. In order to ease this uncomfortable feeling they often change their original attitude to make it consistent with their behaviour. In this way, employees may experience dissonance as a result of wanting to leave an organisation and in order to ease their discomfort, they may rationalise their intention by reducing their working environment as uncivil, thereby offering a plausible reason to leave. This could explain why employees who have turnover intentions experience high workplace incivility.

A new contribution to the literature brought by this study is the consideration of the potential buffering role of PsyCap in the incivility-stress/turnover intention relationship. This is important given that, as a personal resource, PsyCap is state-like characteristic and therefore open to development which suggests that interventions aimed at increasing employee levels of PsyCap could reduce the associated turnover intentions related to experiencing workplace incivility. No other studies were found focusing on this relationship. Only Laschinger et al. (2013) explored the role of resilience, one sub construct of PsyCap, in the incivility-stress relationship. They found that resilience played a protective role in attenuating stress in graduate nurses who were victims of uncivil behaviour. Contrary to what was expected, the results of the study outlined in this dissertation did not provide support for this buffering effect of PsyCap in the experienced incivility-stress relationship. This suggests that employees perceive their work as more stressful the more frequently they experience incivility regardless of their respective levels of PsyCap.

A possible explanation to this finding is that PsyCap may not influence stressors that are low in intensity, in this case, a mundane and ongoing hassle such as incivility. It could be that victims of incivility make use of other cognitive mechanisms to help them deal with the associated stress. There is incivility research which explored different coping strategies that individuals make use of when having experienced uncivil work behaviour. Such research provides a different way in which to explain this study's results. When exploring the nature of two employee responses to workplace incivility, namely, appraisal and coping, Cortina and Magley (2009) found that employees most frequently attempted to defuse workplace incivility cognitively by minimising the severity of the experienced uncivil behaviour. It could be that employees who experience incivility frequently make use of minimization in order to cope with the stress resulting from the negative appraisal of their uncivil work environment, rather than to use their psychological resource capacity, PsyCap. Given that the majority of the sample are highly educated, it is conceivable that participants made use of minimization as an intellectual approach to deal with the uncivil experiences.

Contrary to the above, PsyCap was found to influence the relationship between experienced incivility and turnover intentions, however, not in the way which was proposed and only when extreme cases were included in the analysis. This finding contradicts the results found in a meta-analytic review carried out by Avey et al. (2011). The authors were able to show that PsyCap is related to higher organisational commitment, less job seeking behaviour and ultimately lower turnover intentions. In contrast, the results of this study suggest that the relationship between turnover intention and experienced workplace incivility was stronger for employees high in PsyCap than for employees low in PsyCap, indicating that those high in PsyCap were more likely to want to leave their workplace when they experienced high levels of workplace incivility than those low in PsyCap.

One possible reason for this result is that individuals who are low in PsyCap might not possess the psychological strength to deal with their adversity resulting from their frequent exposure to uncivil behaviour. It is likely that these employees perceive the actions required to seek alternative employment and resignation itself as daunting, risky and fear the possibility of rejection. These perceptions are all further adversities and, in their cognitive evaluation of the situation, they could reason that remaining in their environment would be safer. The fact that minimization is a common coping strategy in dealing with workplace incivility supports this proposition (Cortina & Magley, 2009). If this is the case, minimization potentially serves the individual in that it aids their acceptance of an uncivil work environment whereby they remain, albeit possibly unhappily, employed, because being proactive to change the situation by exiting is too difficult psychologically. The flip side of this argument can be considered to explain the finding that individuals high in PsyCap display increased turnover intentions as a result of frequently being exposed to workplace incivility. It needs to be considered, though, that this effect only tended towards significance once extreme cases had been removed. Nevertheless, since individuals high in PsyCap are optimistic/resilient, self-efficacious and hopeful, it is likely that they might believe that a more conducive workplace environment will serve them better, and furthermore, they may be more willing than their low in PsyCap counterparts to embrace the challenging efforts required to escape an unpleasant

environment and make the shift into a new organisation which may provide a more pleasant working environment. Additionally, given that the sample is highly educated, it is possible that those employees high in PsyCap feel confident that they will find alternative employment elsewhere because they are skilled. Further to this, it could be that low in PsyCap employees who experience high levels of workplace incivility do not display turnover intentions because they have a strong sense of job security. The sample and larger South African context make this plausible. Transformation in South Africa is of considerable importance to redress the ills left by apartheid, and policies promoting that such transformation takes place (such as Affirmative Action, Employment Equity and Broad Based Black Economic Empowerment) are at the forefront of organisational recruitment and hiring practices. Given that the majority of participants in the research are white, it is conceivable that those low in PsyCap might remain in employment and perhaps continue experiencing high levels of incivility because they think that securing alternative employment opportunities is becoming increasingly difficult for white South Africans. Additionally, high in PsyCap employees might not feel held back by such policies because they are more optimistic and hopeful about the future. The above explanations provide reasons why the relationship between turnover intention and PsyCap is stronger among South African employees high in PsyCap. Practical implications of the present study's findings and suggestions for future research are discussed below.

### **5.3 Practical Implications**

The contemporary workplace is riddled with increasing complexity due to advances in technologies, increased competition, scarcity of resources and pressures to consistently perform at high levels. It has been suggested that such complex workplace environments give rise to uncivil behaviour because employees are too caught up in their demanding job roles to be courteous to their co-workers (Pearson & Porath, 2005).

Nevertheless, uncivil behaviour does not in fact seem to be a large problem in South African organisations. Though workplace incivility may not seem worthy of attention

from this study's low rate of occurrence, it will be worthwhile to explore its relative frequency in other South African samples.

Nevertheless, the implication that part of the workforce experiences workplace incivility can be devastating to an organisation's productivity as experienced workplace incivility has been found to be associated with stress in employees and higher turnover intentions. Importantly, Andersson and Pearson (1999) make reference to the "incivility spiral" (p. 458) which suggests a circular pattern of uncivil behaviour – when one employee behaves uncivilly, the victim retaliates with uncivil behaviour, and bystanders model the observed behaviours. This highlights that uncivil behaviour could quickly assimilate into an undesirable organisational culture. Consequently, preventing or reducing uncivil behaviour at work is important. Moreover, it is particularly important for organisations to work towards reducing the occurrence of uncivil behaviour because it is predominantly those high in PsyCap that are likely to leave the organisation. Retaining employees high in PsyCap is important as it is these employees that greatly benefit the organisation. Studies (see meta-analytic review by Avey et al., 2011) empirically show that PsyCap is associated with desirable employee attitudes including job satisfaction, work engagement, organisational commitment and psychological well-being.

In monitoring uncivil conduct and limiting its effects, organisations should not rely only on avenues of redress by taking action once reported incidences have come to light. Instead, a proactive approach to conducting interventions should be adopted as a preventative strategy which would limit the onset of an uncivil work environment which gives rise to negative individual and workplace outcomes. Additionally, organisations should endeavour to foster a work environment and climate where rude and discourteous behaviour is not tolerated as this might signal to employees that the organisation is supportive of those who might experience incivility and as a result increase employees' levels of psychological safety. Leiter et al. (2011) propose a risk management model of workplace *civility* where organisations attempt to reflect that incivility at work enables a harmful social environment and that such an environment in the workplace weakens an employee's sense of psychological safety. In summation,

by promoting civility at work, organisations can improve organisational outcomes, the quality of workplace relationships and individual wellness.

#### **5.4 Limitations and Further Recommendations**

The present study illustrated the negative outcomes resulting from experienced workplace incivility and the role of PsyCap in these relationships. Nonetheless, caution should be taken in interpreting these results by considering other factors related to workplace incivility that could contribute to high levels of stress and turnover intention in employees that experience frequent uncivil conduct at work. For example, different sources of incivility (supervisor and co-worker) and different types of incivility (instigated and witnessed) could potentially reveal stronger, or weaker, relations with stress and turnover intentions. Distinguishing between these different sources and types of incivility could be beneficial in extending South African research in the domain of incivility. Such findings could help to identify appropriately targeted interventions to reduce incivility in the workplace.

Consistent with prior research conducted using South African samples (e.g. Brouze, 2013; Du Plessis & Barkhuizen, 2011; Pillay, 2012) a limitation in this study is the poor psychometric properties of the PsyCap scale. In this study, PsyCap comprised a three dimensional structure as opposed to a four dimensional structure as originally developed by Luthans et al. (2007). A posited reason for this poor fit is that the PCQ-24 has inadequate support in the South African context. It is possible that the factor structure of the PCQ-24 might be due to different interpretations of the item statements between South African and American respondents (Du Plessis & Barkhuizen, 2011). Evidently, and in South Africa, PsyCap could be made up of different constructs relative to the constructs in America, i.e. different constructs are required in a local context to have PsyCap than in the US. Furthermore, constructs in South Africa could be understood differently, e.g. while hope and optimism might be seen as two separate constructs in the US, in this study it seems that these constructs might be seen as the same. The current study adds to a growing, albeit limited, number of studies conducted in the South African context to investigate the construct

of PsyCap. These findings contribute to existing local knowledge on the structure of the PCQ-24. It is recommended that future studies emphasising a comprehensive examination of the PsyCap scale's psychometric properties on other South African samples to determine the validity of the construct be conducted. More specifically, it would be of value if future studies employ CFA as an analysis strategy to ascertain whether the original four-factor structure can be assumed. This approach was followed by Harris (2012) who found that the original measurement model could not be assumed in her South African data, indicated by mediocre fit indices. A CFA analysis was not employed in this study as establishing the psychometric properties of the PsyCap scale was not the main focus of the study.

Furthermore, the related sub constructs of PsyCap could be investigated to ascertain whether one sub construct is a significant moderator in this study's hypothesised relationships relative to another. This was not considered in the present study as it was not part of the study's aims. Such an investigation may provide insight into particular psychological resources which can lessen the undesirable effects of stress and turnover intention associated with experienced workplace incivility, and in doing so, direct specific interventions to build on particular psychological resources. For example, interventions targeted at developing resilience, if such a resource is found to buffer the negative effects as stated above, could be beneficial.

A further possible limitation in the present study is that respondents may have felt reluctant to disclose their experiences of incivility from their supervisors and/or co-workers resulting in a form of leniency or social desirability bias. Responding in a socially desirable way is one form of response bias that influences the results of studies that make use specifically of self-report measures. Such bias arises when respondents form a positive impression of themselves by either over-estimating admirable behaviours and attitudes, or under-estimating behaviours and attitudes that they deem not to qualify as socially acceptable (Zammuner & Galli, 2005). Although participants were informed that their responses would remain anonymous, it is still possible that they may have felt reluctant to disclose the occurrence of negative workplace behaviour. As such, this may have unduly influenced the present study's

results. Therefore, when interpreting the results of this study, it should be noted that the data collection method (self-report measures) used in this study is a possible limitation. LeBlanc (2011) suggests that further studies could account for this potential bias by using a measure of civility (as opposed to incivility) because soliciting responses of positive behaviour perceptions would not necessarily evoke leniency that may potentially bias responses.

A further limitation of the present study is the small sample size. A larger sample would provide more insight into the nature and consequences of incivility in South Africa as larger samples allow for greater generalisability of results as they represent a more diverse group of employees.

In addition, there is an opportunity for future research to explore how different racial groups perceive and experience workplace incivility. This is of interest given the diverse multicultural and multiracial composition of South Africa's workforce. Being part of a racial minority group was found to be associated with higher experiences of workplace incivility in a study conducted by Cortina et al (2013) amongst White and African American US employees. This finding supports the notion put forward by Archer (1999) that minority groups are likely to experience negative workplace behaviour more frequently. Investigating then whether South African racial groups perceive and experience workplace incivility differently is of interest because organisations are being forced to integrate their workforces to reflect the country's demographics. This creates diverse workgroups which, as a collective, have to reach organisational goals. Pertinently, such studies would provide employers practical insight to manage diversity and transformation in their organisations. By identifying patterns of incivility as it occurs, employers can design targeted interventions aimed at overcoming psychosocial obstacles so as to enable greater effectiveness amongst diverse workgroups.

The use of convenience sampling suggests a further limitation of this study as it was not possible to control who completed the questionnaire. This and the fact that data was collected electronically led to a sample which consisted mostly of highly

educated employees. It would therefore be worthwhile to replicate the existing study in a sample of employees who are more representative of South Africa's general workforce.

Finally, future research should investigate potential mediators and moderators in the incivility-stress and incivility-turnover intention relationship which could also provide practical insight to inform appropriate interventions. In two studies conducted by Miner et al., (2012), in samples with property management company employees and undergraduate students, for example, emotional and organisational support were found to buffer the relationship between experienced incivility and stress. This suggests that employees and students who experienced higher levels of incivility stated better outcomes when they felt organisationally and emotionally supported.

Nevertheless, it is hoped that the present study is catalytic in that it may provide for future investigations into factors that may potentially curtail the negative effects associated with the experience of incivility at work.

## **5.5 Conclusion**

In spite of certain limitations, this research delivered a number of useful results. In summation, the present study's findings broaden the geographies of incivility research by extending organisational behaviour literature on incivility to the South African context. Relevantly, the study provided insight into how employees, specifically professionals from a diverse South African context perceive and react to uncivil workplace behaviours. In particular, this study provided evidence that being a target of workplace incivility relates to higher stress and higher levels of turnover intention. Finally, the present study provides some preliminary evidence of the moderating role that PsyCap plays in the relationship between the experience of incivility at work and employees intention to leave their current organisation. Employees high in PsyCap tend to show greater intentions to leave the highly uncivil organisational environments in which they perceive to work. Given that such employees are beneficial to an organisation's functioning, as they display positive

organisational behaviour, it is important that employers aim to address incivility in organisations by reducing its occurrence so as to decrease the imminent risk of losing employees high in PsyCap to organisations offering a more civil and conducive working environment.

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## Appendices

### Appendix A

Table 1

*Number of Participants and Percentage of Participants per Industry*

	<b>Number of Participants</b>	<b>Percentage of Participants</b>
Admin, Office & Support	11	5.9
Arts & Entertainment	6	3.2
Beauty	1	.5
Building & Construction	1	.5
Business & Management	11	5.9
Commercial Services	1	.5
Community Services	1	.5
Construction	2	1.1
Design	4	2.1
Distribution, Warehousing & Freight	2	1.1
Education	12	6.4
Engineering	10	5.3
Financial Services	15	8.0
FMCG, Retail & Wholesale	7	3.7
Government & Local Government	6	3.2
Hospitality & Restaurant	9	4.8
Human Resources & Recruitment	21	11.2
Information Technology	14	7.4
Legal	2	1.1
Manufacturing, Production & Trades	8	4.3
Maritime	1	.5
Marketing	7	3.7
Media	4	2.1
Medical	2	1.1
Sales	5	2.7
Social & Community	2	1.1
Telecommunication	8	4.3
Transport & Aviation	4	2.1
Travel & Tourism	1	.5
Other	10	5.3
Total	188	100.0

## Appendix B

### Research Project Questionnaire

Please indicate which option applies to you.

Gender				
Male	<input type="checkbox"/>			
Female	<input type="checkbox"/>			
Age Group				
18-24 years	<input type="checkbox"/>	35-44 years	<input type="checkbox"/>	55-64 years
25-34 years	<input type="checkbox"/>	45-54 years	<input type="checkbox"/>	65 years or older
Highest level of education (If currently enrolled, highest degree received)				
Less than Grade 12	<input type="checkbox"/>	Diploma	<input type="checkbox"/>	Postgraduate Degree
Grade 12	<input type="checkbox"/>	Undergraduate Degree	<input type="checkbox"/>	Doctoral Degree
Marital Status				
Single, never married	<input type="checkbox"/>	Widowed	<input type="checkbox"/>	Separated
Married or domestic partnership	<input type="checkbox"/>	Divorced	<input type="checkbox"/>	
Race				
Black	<input type="checkbox"/>	Coloured	<input type="checkbox"/>	White
Chinese	<input type="checkbox"/>	Indian	<input type="checkbox"/>	Prefer not to answer
Home Language				
Afrikaans	<input type="checkbox"/>	Sotho	<input type="checkbox"/>	Xhosa
English	<input type="checkbox"/>	Tsonga	<input type="checkbox"/>	Other
Northern Sotho	<input type="checkbox"/>	Tswana	<input type="checkbox"/>	
Industry (see Appendix A, Table 1 for Industry Categories)				
Province				
Eastern Cape	<input type="checkbox"/>	Western Cape	<input type="checkbox"/>	Unspecified
Free State	<input type="checkbox"/>	Limpopo	<input type="checkbox"/>	
Gauteng	<input type="checkbox"/>	Mpumalanga	<input type="checkbox"/>	
KwaZulu-Natal	<input type="checkbox"/>	North West	<input type="checkbox"/>	
	<input type="checkbox"/>	Northern Cape	<input type="checkbox"/>	
Employment Level				
Management	<input type="checkbox"/>	Non-management	<input type="checkbox"/>	
Work Status				
Casual	<input type="checkbox"/>	Full-time	<input type="checkbox"/>	
Fixed	<input type="checkbox"/>	Part-time	<input type="checkbox"/>	

In the questionnaire below you will find 61 statements and questions. Please select the answer option that best represents your experience in the workplace. There are no right or wrong answers.

**(Uncivil Workplace Behaviour)**

**In the past 12 months, how often has a co-worker, subordinate or supervisor:**

never  
rarely  
sometimes  
often  
always

		never	rarely	sometimes	often	always
1	Raised their voice while speaking to you	1	2	3	4	5
2	Used an inappropriate tone when speaking to you	1	2	3	4	5
3	Spoke to you in an aggressive tone of voice	1	2	3	4	5
4	Rolled their eyes at you	1	2	3	4	5
5	Took stationery from your desk without later returning it	1	2	3	4	5
6	Took items from your desk without prior permission	1	2	3	4	5
7	Read communications addressed to you, such as e-mails or faxes	1	2	3	4	5
8	Opened your desk drawers without prior permission	1	2	3	4	5
9	Did not consult you in reference to a decision you should have been involved in	1	2	3	4	5
10	Avoided consulting you when they would normally be expected to do so	1	2	3	4	5
11	Was excessively slow in returning your phone messages or e-mails without good reason for the delay	1	2	3	4	5
12	Intentionally failed to pass on information which you should have been made aware	1	2	3	4	5
13	Were unreasonably slow in seeing to matters on which you were reliant on them for, without good reason	1	2	3	4	5
14	Publicly discussed your confidential personal information	1	2	3	4	5
15	Made snide remarks about you	1	2	3	4	5
16	Talked about you behind your back	1	2	3	4	5
17	Gossiped behind your back	1	2	3	4	5

**(Perceived Stress Scale)**

**In the last month, how often have you:**

1	Been upset because of something that happened unexpectedly?	1	2	3	4	5
2	Felt that you were unable to control the important things in your life?	1	2	3	4	5
3	Felt nervous and "stressed"?	1	2	3	4	5
4	Dealt successfully with irritating life hassles?	1	2	3	4	5
5	Felt that you were effectively coping with important changes that were occurring in your life?	1	2	3	4	5
6	Felt confident about your ability to handle your personal problems?	1	2	3	4	5
7	Felt that things were going your way?	1	2	3	4	5
8	Found that you could not cope with all the things that you had to do?	1	2	3	4	5
9	Been able to control irritations in your life?	1	2	3	4	5
10	Felt that you were on top of things?	1	2	3	4	5
11	Been angered because of things that happened that were outside of your control?	1	2	3	4	5
12	Found yourself thinking about things that you have to accomplish?	1	2	3	4	5
13	Been able to control the way you spend your time?	1	2	3	4	5
14	Felt difficulties were piling up so high that you could not overcome them?	1	2	3	4	5

<b>(Shortened Turnover Intention Scale)</b>						
<b>During the past nine months:</b>						
1	How often have you considered leaving your job?	1	2	3	4	5
2	To what extent is your current job satisfying your personal needs?	1	2	3	4	5
3	How often are you frustrated when not given the opportunity at work to achieve your personal work-related goals?	1	2	3	4	5
4	How often do you dream about getting another job that will better suit your personal needs?	1	2	3	4	5
5	How likely are you to accept another job at the same compensation and level should it be offered to you?	1	2	3	4	5
6	How often do you look forward to another day at work?	1	2	3	4	5
<b>(Psychological Capital)</b>						
<b>Below are statements about you with which you may agree or disagree.</b>						
Using the following scales, indicate your level of agreement or disagreement to each statement (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree).						
1	I feel confident analysing a long-term problem to find a solution.	1	2	3	4	5
2	I feel confident in representing my work area in meetings with management.	1	2	3	4	5
3	I feel confident contributing to discussions about the company's strategy.	1	2	3	4	5
4	I feel confident helping to set targets/goals in my work area.	1	2	3	4	5
5	I feel confident contacting people outside the company (e.g., suppliers, customers) to discuss problems.	1	2	3	4	5
6	I feel confident presenting information to a group of colleagues.	1	2	3	4	5
7	If I should find myself in a jam at work, I could think of many ways to get out of it.	1	2	3	4	5
8	At the present time, I am energetically pursuing my work goals.	1	2	3	4	5
9	There are lots of ways around any problem.	1	2	3	4	5
10	Right now I see myself as being pretty successful at work.	1	2	3	4	5
11	I can think of many ways to reach my current work goals.	1	2	3	4	5
12	At this time, I am meeting the work goals that I have set for myself.	1	2	3	4	5
13	When I have a setback at work, I have trouble recovering from it and moving on.	1	2	3	4	5
14	I usually manage difficulties one way or another at work.	1	2	3	4	5
15	I can be "on my own" so to speak at work if I have to.	1	2	3	4	5
16	I usually take stressful things at work in stride.	1	2	3	4	5
17	I can get through difficult times at work because I've experienced difficulty before.	1	2	3	4	5
18	I feel I can handle many things at a time at this job.	1	2	3	4	5
19	When things are uncertain for me at work I usually expect the best.	1	2	3	4	5
20	If something can go wrong for me work-wise it will.	1	2	3	4	5
21	I always look on the bright side of things regarding my job.	1	2	3	4	5
22	I'm optimistic about what will happen to me in the future as it pertains to work.	1	2	3	4	5
23	In this job, things never work out the way I want them to.	1	2	3	4	5
24	I approach this job as if "every cloud has a silver lining".	1	2	3	4	5

## Cover Letter



### **2014 RESEARCH PROJECT**

Dear Respondent

I would like to invite you to assist me with a research project which I am completing as part of my Master's degree in Organisational Psychology at the University of Cape Town. The project has been approved by The Commerce Faculty Ethics in Research Committee at the University of Cape Town. The study's aim is to understand the degree to which employees in South Africa experience destructive behaviour at work and what the effects are on their wellbeing. It should take you approximately 15 minutes to complete the questionnaire.

Upon successful completion of the survey, you can stand a chance of winning a Woolworths voucher to the value of R500. Only if you wish to participate in the lucky draw you will be requested to provide your email address at the end of the questionnaire. Email addresses are recorded separately from your responses on the questionnaire and your questionnaire responses will therefore be anonymous. A lucky draw will take place after the closing date of the survey.

Your participation in the study is voluntary and you can withdraw from the study at any time. All information will be kept confidential.

If you have any questions or concerns about completing the questionnaire, about being in this study, or if you would like to be informed about the results you may email me, Crystl Bateman, on [crystl.bateman@gmail.com](mailto:crystl.bateman@gmail.com).

Thank you very much for your time and support.

## Appendix C

### Experienced Workplace Incivility Measurement Statistics

Table 1

*Item-total Statistics for the Experienced Workplace Incivility Scale*

Item	Corrected item-total correlation	Cronbach's alpha if item deleted
1	.64	.91
2	.64	.91
3	.68	.91
4	.70	.91
5	.40	.91
6	.48	.91
7	.43	.91
8	.47	.91
9	.62	.91
10	.66	.91
11	.51	.91
12	.67	.91
13	.50	.91
14	.47	.91
15	.73	.91
16	.70	.91
17	.71	.91

Table 2

*Factor loadings for the 17-item Experienced Workplace Incivility Scale*

Item	Factor			
	1	2	3	4
1			.78	
2			.78	
3			.74	
4	.40		.38	
5		.82		
6		.91		
7		.32		
8		.82		
9				.56
10				.67
11				.59
12				.69
13				.58
14				
15	.59			
16	.85			
17	.80			

Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser normalization. Rotation converged in 11 iterations.

Table 3

*Item-total Statistics for the reduced 15-item Experienced Workplace Incivility Scale*

<b>Item</b>	<b>Corrected item-total correlation</b>	<b>Cronbach's alpha if item deleted</b>
1	.63	.90
2	.62	.90
3	.68	.89
5	.40	.90
6	.49	.90
7	.41	.90
8	.47	.90
9	.61	.90
1	.67	.89
11	.52	.90
12	.67	.89
13	.51	.90
15	.72	.89
16	.69	.89
17	.70	.89

## Appendix D

### Perceived Stress Measurement Statistics

Table 1

*Item-total Statistics for the 14-item Perceived Stress Scale*

Item	Corrected item-total correlation	Cronbach's alpha if item deleted
1	.50	.86
2	.55	.86
3	.60	.86
4	.43	.87
5	.64	.86
6	.62	.86
7	.56	.86
8	.59	.86
9	.46	.87
10	.68	.85
11	.54	.86
12	.13	.88
13	.46	.87
14	.66	.85

Table 2

*Item-total Statistics for the reduced 13-item Perceived Stress Scale*

Item	Corrected item-total correlation	Cronbach's alpha if item deleted
1	.49	.88
2	.55	.87
3	.59	.87
4	.45	.88
5	.66	.87
6	.63	.87
7	.56	.87
8	.59	.87
9	.48	.88
10	.67	.86
11	.53	.87
13	.47	.88
14	.66	.88

## Appendix E

### Turnover Intention Measurement Statistics

Table 1

*Item-total Statistics for the Turnover Intention Scale*

<b>Item</b>	<b>Corrected item-total correlation</b>	<b>Cronbach's alpha if item deleted</b>
1	.77	.83
2	.58	.87
3	.60	.87
4	.82	.82
5	.61	.87
6	.73	.85

## Appendix F

### Psychological Capital Measurement Statistics

Table 1

*Item-total Statistics for the 24-item Psychological Capital Scale*

Item	Corrected item-total correlation	Cronbach's alpha if item deleted
1	.61	.90
2	.67	.90
3	.57	.90
4	.63	.90
5	.48	.90
6	.57	.90
7	.46	.90
8	.63	.90
9	.52	.90
1	.62	.90
11	.64	.90
12	.53	.90
13*	.49	.90
14	.57	.90
15	.16	.91
16	.48	.90
17	.34	.91
18	.66	.90
19	.55	.90
20*	.19	.91
21	.67	.90
22	.54	.90
23*	.30	.91
24	.48	.90

\*Reverse coded items

Table 2

*Item-total Statistics for the reduced 21-item Psychological Capital Scale*

Item	Corrected item-total correlation	Cronbach's alpha if item deleted
1	.62	.91
2	.67	.91
3	.57	.91
4	.65	.91
5	.50	.91
6	.58	.91
7	.48	.91
8	.64	.91
9	.53	.91
1	.63	.91
11	.66	.91
12	.53	.91
13*	.48	.91
14	.57	.91
16	.49	.91
17	.33	.92
18	.66	.91
19	.55	.91
21	.68	.91
22	.54	.91
24	.49	.91

\*Reverse coded item

Table 3

*Factor loadings for the reduced 21-item Psychological Capital Scale*

Item	Factor				
	1	2	3	4	5
1			.31		
2		.67			
3		.74			
4		.40			.39
5					.33
6		.78			
7			.33		
8	.81				
9		.39			
10	.48				
11	.69				
12	.48				.31
13				.60	
14			.84		
16				.54	
17					
18			.31	.34	
19	.31			.31	
21	.37			.43	
22	.49				
24				.36	

Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser normalization. Rotation converged in 11 iterations.

Table 4

*Factor loadings for the reduced 20-item Psychological Capital Scale*

Item	Factor				
	1	2	3	4	5
1					
2		-.67			
3		-.66			
4	.45	-.43			.45
5					
6		-.79			
7			.32		
8	.67				.67
9		-.32		.35	
10	.64				.64
11	.61				.61
12	.66				.66
13				.56	
14			.79		
16				.42	
18				.36	
19				.46	
21				.63	
22	.46				.46
24				.52	

Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser normalization. Rotation converged in 11 iterations.

Table 5

*Factor loadings for the reduced 18-item Psychological Capital Scale*

Item	Factor			
	1	2	3	4
2		-.64		
3		-.70		
4		-.47		
6		-.79		
7	.43			
8			-.70	
9	.40	-.33		
10			-.66	
11	.35		-.62	
12			-.65	
13				.57
14	.66			
16				.41
18	.35			
19	.30			
21	.42			.36
22			-.46	
24	.41			

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser normalization. Rotation converged in 11 iterations.

Table 6

*Factor loadings for the reduced 15-item Psychological Capital Scale*

Item	Factor		
	1	2	3
2		-.64	
3		-.77	
4		-.59	-.38
6		-.80	
7	.31		
8			-.77
10			-.37
13	.40		
14	.71		
16	.50		
18	.61		
19	.52		
21	.76		
22	.34		
24	.63		

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser normalization. Rotation converged in 9 iterations.

Table 7

*Factor loadings for the reduced 13-item Psychological Capital Scale (one factor extracted)*

<b>Item</b>	<b>Factor Loading</b>
2	.70
3	.58
6	.58
8	.66
10	.61
13	.54
14	.55
16	.53
18	.70
19	.61
21	.74
22	.56
24	.54

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser normalization. 4 iterations required.

Table 8

*Item-total Statistics for the reduced 13-item Psychological Capital Scale*

<b>Item</b>	<b>Corrected item-total correlation</b>	<b>Cronbach's alpha if item deleted</b>
2	.66	.86
3	.54	.86
6	.54	.86
8	.63	.86
10	.61	.86
13*	.50	.87
14	.49	.87
16	.49	.87
18	.50	.87
19	.64	.86
21	.55	.86
22	.53	.87
24	.48	.87

\*Reverse coded item

## Appendix G

### Testing Linearity of Data

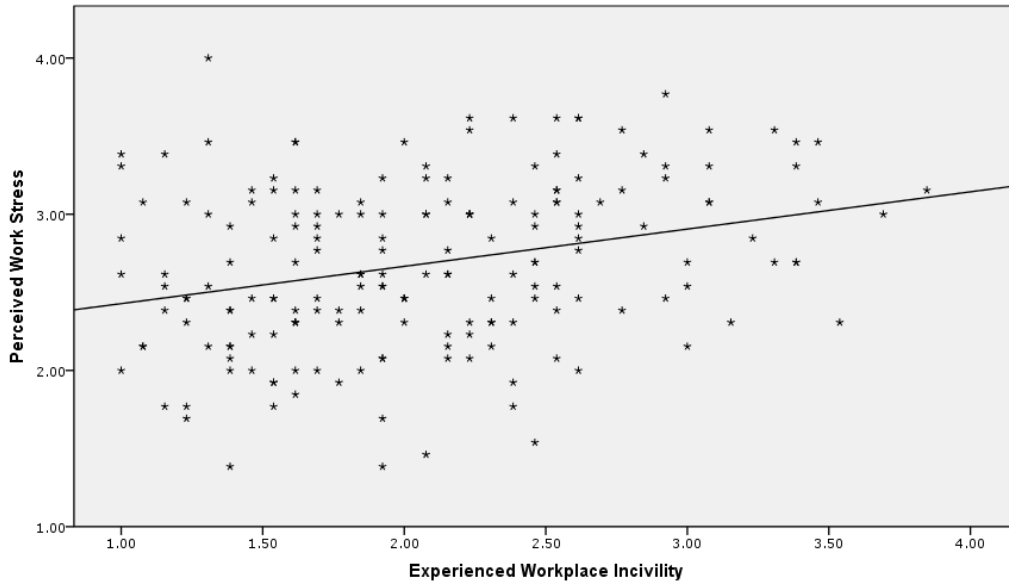


Figure 1. Scatterplot graph indicating scores between experienced workplace incivility and perceived stress

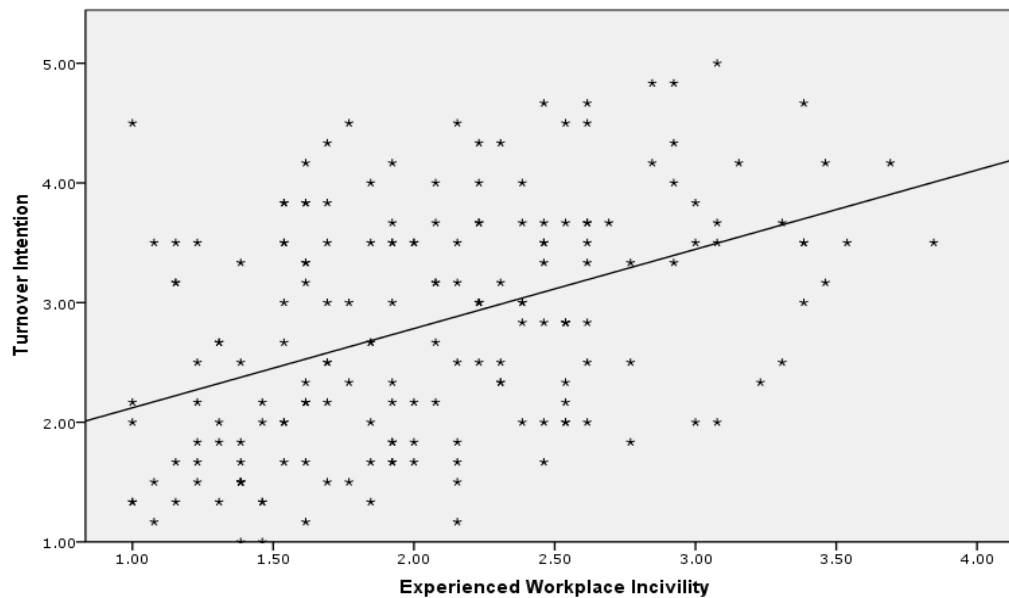


Figure 2. Scatterplot graph indicating scores between experienced workplace incivility and turnover intention

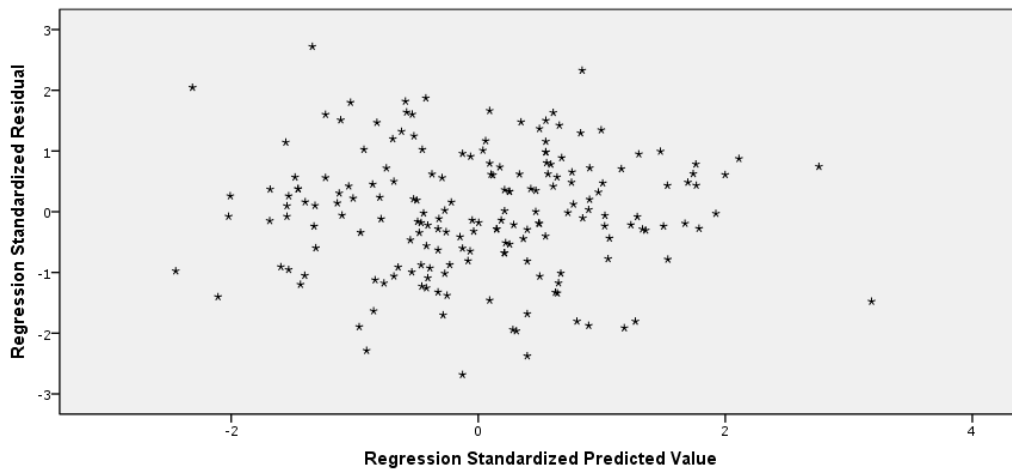


Figure 3. Plots of \*ZRESID against \*ZPRED with perceived stress scores

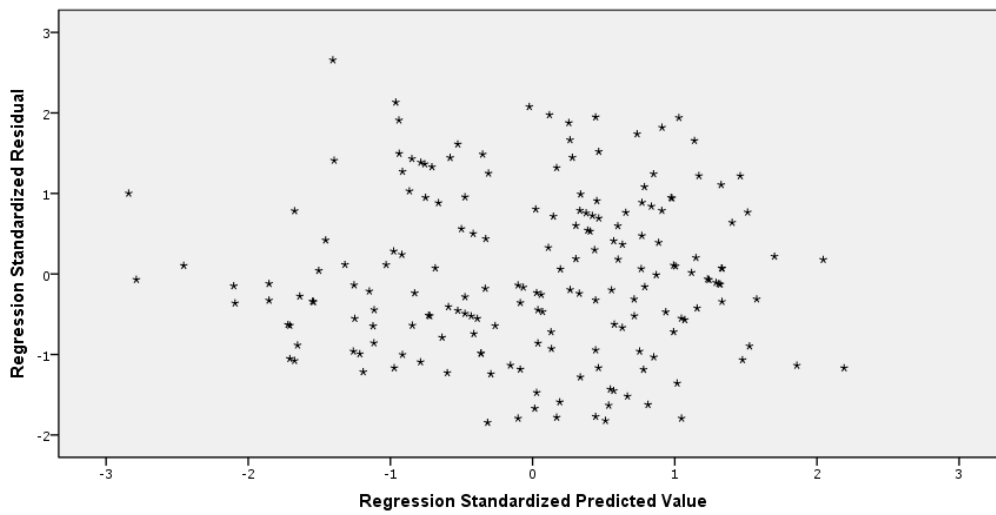


Figure 4. Plots of \*ZRESID against \*ZPRED with turnover intention scores

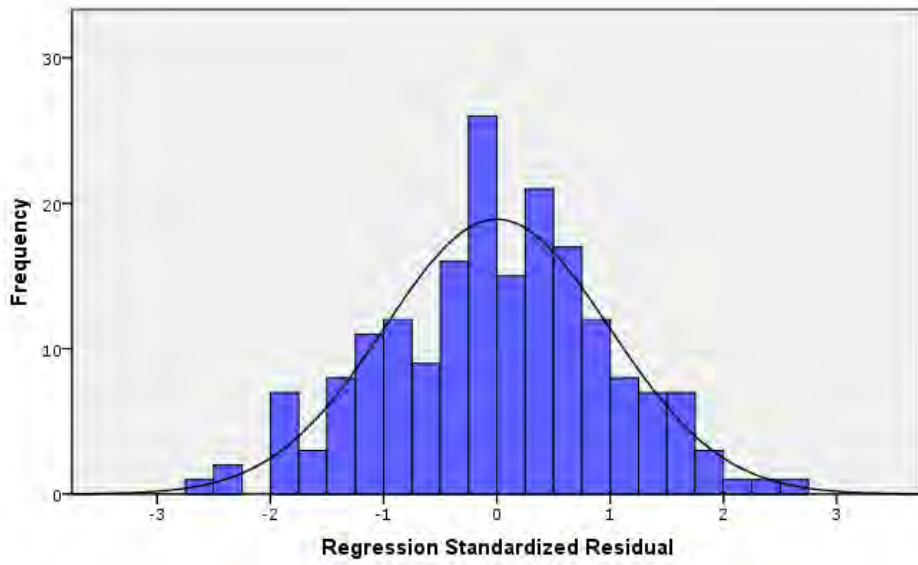


Figure 5. Histogram indicating distribution of perceived stress scores

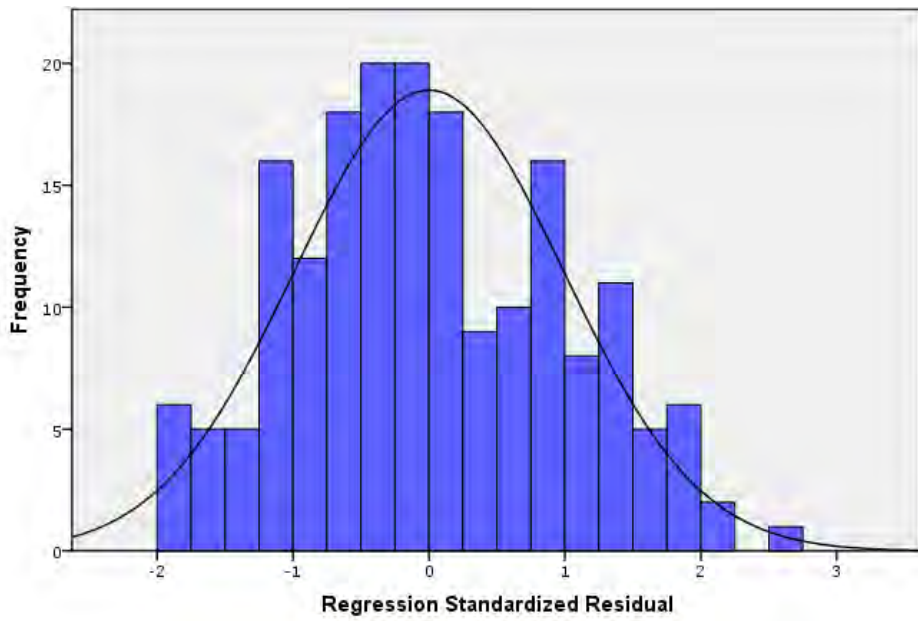
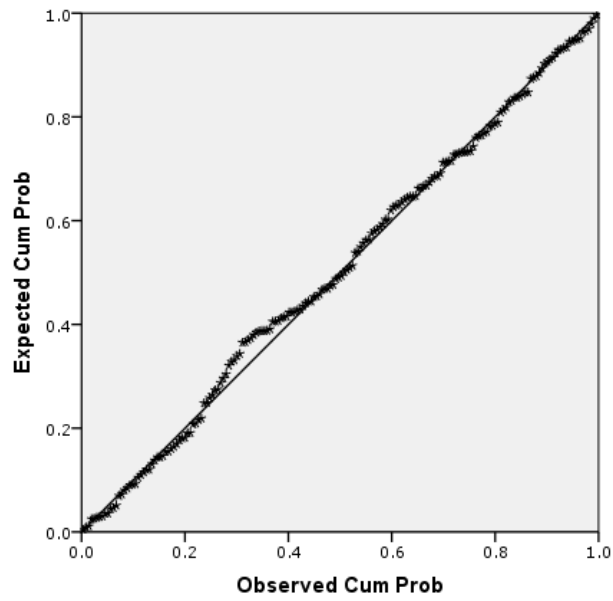
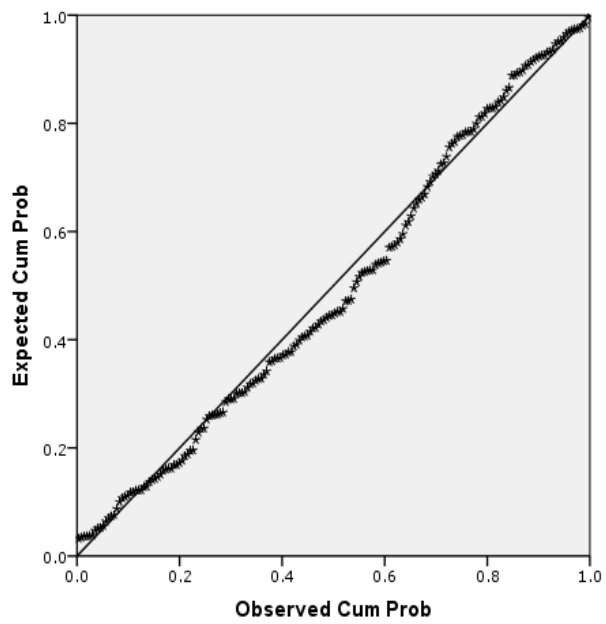


Figure 6. Histogram indicating distribution of turnover intention scores



*Figure 7.* Normal P-P Plot indicating distribution of perceived stress scores



*Figure 8.* Normal P-P Plot indicating distribution of turnover intention scores

## Appendix H

### Testing for Multivariate Outliers in Dataset

Table 1

*Standardised Residuals for Moderated Multiple Regression with Perceived Stress (a), Turnover intention (b), Mahalanobis Distance and Critical Values for all cases in dataset.*

<b>Case Number</b>	<b>Std. Residual (a)</b>	<b>Std. Residual (b)</b>	<b>Mahalanobis Distance</b>	<b>Critical Value</b>
1	.57	-.52	.69	.00
2	-1.96	.72	.25	.00
3	1.30	.22	9.18	.05
4	.89	1.82	1.71	.01
5	-.31	-.57	2.23	.01
6	.91	.80	.10	.00
7	-.44	1.24	1.37	.01
8	-.87	.50	.96	.01
9	1.66	-1.13	2.41	.01
10	-1.18	-1.09	.63	.00
11	-.33	1.49	.38	.00
12	-1.01	.06	.87	.00
13	-.98	-.07	12.90	.07
14	-.08	-.36	6.04	.03
15	.19	-.55	.32	.00
16	-1.05	-.63	3.75	.02
17	-.91	-.64	1.01	.01
18	.33	-1.67	2.54	.01
19	1.47	-1.22	2.39	.01
20	-.02	1.74	.69	.00
21	1.80	-.99	1.60	.01
22	-1.46	1.32	.09	.00
23	-1.63	-.45	1.63	.01
24	-1.33	.95	2.29	.01
25	.72	.10	2.13	.01
26	-.21	-1.03	3.13	.02
27	-.18	.72	.19	.00
28	-.22	-.72	1.80	.01
29	1.48	-.43	6.23	.03
30	-.45	1.45	.40	.00
31	1.60	-.47	3.28	.02
32	-.18	.30	7.33	.04
33	-.99	-.20	5.82	.03
34	-.29	-.23	.60	.00
35	-.02	-.52	.25	.00
36	.16	-1.59	1.44	.01
37	.36	-.86	1.23	.01
38	-.03	-.90	19.73	.11
39	-1.12	1.91	.91	.00
40	.24	-1.43	17.80	.10
41	.96	.94	11.21	.06
42	.74	-1.62	3.73	.02
43	-.24	1.22	2.91	.02

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44	1.32	.24	1.71	.01
45	-.19	.60	.47	.00
46	-.24	-.01	1.19	.01
47	-.34	.07	1.30	.01
48	2.33	-.63	7.78	.04
49	.38	-1.08	3.40	.02
50	1.87	.88	1.23	.01
51	-1.40	-.15	6.20	.03
52	1.25	-.52	.98	.01
53	-.08	-1.79	2.14	.01
54	-.08	-.64	3.56	.02
55	1.17	.33	.076	.00
56	-1.91	-.47	1.73	.01
57	.22	.12	2.21	.01
58	.61	-1.07	6.04	.03
59	1.35	.84	1.09	.01
60	-2.68	-.14	.10	.00
61	.43	1.11	24.94	.13
62	-.78	-.07	5.00	.03
63	-.28	-.50	.66	.00
64	-.14	.76	2.09	.01
65	-.47	-.18	.61	.00
66	-.16	1.39	1.77	.01
67	-.24	-.34	2.80	.02
68	-.88	-1.85	.36	.00
69	-.81	-.72	.39	.00
70	-.42	-1.28	2.02	.01
71	-.29	-1.47	.60	.00
72	-.06	.11	1.26	.01
73	-.96	-.12	4.49	.02
74	-.12	.44	.20	.00
75	.01	1.88	.10	.00
76	-.54	-1.17	.53	.00
77	-1.09	-.99	.21	.00
78	-.93	-1.23	1.03	.01
79	.56	.04	2.69	.01
80	.42	-.20	.38	.00
81	.50	1.27	1.23	.01
82	-1.94	-.26	2.18	.01
83	-.29	-.55	2.14	.01
84	-1.34	-1.82	.68	.00
85	-1.06	-.96	1.19	.01
86	1.14	-.35	2.92	.02
87	.12	.64	5.78	.03
88	-.06	.89	3.12	.02
89	.20	.39	1.30	.01
90	.57	1.50	4.05	.02
91	-.65	-.24	1.34	.01
92	-.82	-.95	.20	.00
93	.26	.10	9.46	.05
94	-1.02	-3.60	.34	.00
95	-1.26	1.61	.48	.00
96	.16	-.51	5.09	.03
97	2.72	2.66	2.22	.01
98	.21	1.43	2.06	.01
99	.42	1.41	2.57	.01
100	.48	-.13	5.16	.03
101	.43	1.22	14.10	.08

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102	-.40	.11	2.75	.01
103	.38	.76	.26	.00
104	.99	.20	2.71	.01
105	.65	.79	1.57	.01
106	.98	.69	.41	.00
107	.62	.48	2.04	.01
108	-1.88	.37	12.40	.07
109	.87	.77	10.77	.06
110	1.50	1.52	.41	.00
111	.37	-.89	3.49	.02
112	-.12	-.65	2.06	.01
113	.98	.41	.34	.00
114	.26	-.33	4.49	.02
115	.78	-1.14	15.36	.08
116	-1.81	-.11	5.83	.03
117	-1.20	-.55	2.32	.01
118	.33	1.08	2.76	.01
119	-1.70	-.64	.15	.00
120	.62	-1.24	.20	.00
121	-.11	.18	3.48	.02
122	.56	-.74	.51	.00
123	.78	.07	4.50	.02
124	-.68	-.93	.35	.00
125	-1.38	1.98	1.19	.01
126	-1.17	.91	1.74	.01
127	-1.81	.02	3.05	.02
128	1.60	2.13	1.91	.01
129	.35	1.66	1.95	.01
130	.14	-.86	1.39	.01
131	1.37	.19	1.65	.01
132	1.63	-1.52	.55	.00
133	-.22	-.99	.21	.00
134	-1.69	-1.77	.20	.00
135	1.01	-1.63	2.20	.01
136	-.60	-.21	1.90	.01
137	-.68	-.45	1.23	.01
138	.95	.07	6.51	.03
139	.31	-.14	1.68	.01
140	.48	-1.19	.85	.00
141	1.03	.28	.96	.01
142	-1.06	-1.00	1.23	.01
143	.02	-1.19	.34	.00
144	-.19	.60	1.65	.01
145	-.78	-.06	4.22	.02
146	.00	-1.36	3.44	.02
147	-.63	-.29	.66	.00
148	1.42	1.94	2.63	.01
149	-.14	.06	.52	.00
150	.10	-1.05	3.56	.02
151	-.35	.56	.31	.00
152	1.02	-.41	.62	.00
153	-1.23	-.24	2.93	.02
154	.38	.78	3.40	.02
155	.63	-.34	6.16	.03
156	.80	-1.78	.09	.00
157	-2.38	-.33	.20	.00
158	-.56	-.46	.48	.00
159	1.51	1.03	1.54	.01

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160	-.20	-.12	5.73	.03
161	1.64	1.33	.65	.00
162	.32	-.31	4.12	.02
163	-.15	.42	3.30	.02
164	.71	1.66	3.53	.02
165	.60	2.08	.77	.00
166	-.28	-.31	18.72	.100
167	.10	.95	3.90	.02
168	.03	-.67	6.11	.03
169	1.16	-1.45	.34	.00
170	.62	.99	2.80	.015
171	1.82	-1.17	2.71	.015
172	-.29	1.95	.20	.00
173	2.05	1.00	14.09	.08
174	.74	.18	10.41	.06
175	-.91	-.28	3.28	.02
176	.47	-.16	1.55	.01
177	.45	-.96	2.74	.01
178	-.32	-.17	.16	.00
179	-.60	-1.79	.10	.00
180	-1.48	-1.17	17.39	.09
181	.80	.54	1.15	.01
182	-.51	.53	.39	.00
183	-1.90	1.25	4.23	.02
184	1.20	-.79	.49	.00
185	.72	1.44	.68	.00
186	-2.29	1.37	.90	.00
187	.62	.79	.50	.00
188	-1.32	.96	.66	.00

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