ABUSIVE SUPERVISION AND GROUP-LEVEL PERCEPTIONS: LOOKING AT THE SOCIAL CONTEXT OF ABUSE IN THE WORKPLACE

Purnima Gopalkrishnan

A Dissertation
Submitted to the Graduate College of Bowling Green State University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2013

Committee:
Steve Jex, Advisor
Mary E. Benedict
Graduate Faculty Representative
Michael Zickar
William O'Brien
ABSTRACT

Steve Jex, Advisor

Abusive supervision refers to an employee’s perceptions of negative interactions with one’s supervisor that are threatening in a non-physical way (Tepper, 2000). Abusive supervision has been shown to have a negative impact on the individual as well as the organization. However, there is little known about how the social context in which abuse might occur can influence the relationship between abusive supervision and outcome variables. This study proposed to look at how group-level perceptions of supervisor behaviors moderate the relationship between individual level perceptions of abuse and individual level experiences of strain (physical, psychological health, emotion exhaustion and job satisfaction). Group-level perceptions were predicted to act as a buffer and reduce the negative impact of abusive supervision on individual level outcomes. Groups where there may be a lack of/low group-level perceptions of abusive supervision, the relationship between abusive supervision and individual level outcomes was expected to be stronger. Data were collected from 43 groups of employees (N=172). Hierarchical Linear Modeling (HLM) and regression analyses were conducted and the results revealed that there wasn’t enough variability between groups for the moderation effects to be significant. Individual level abusive supervision significantly predicted the individual level outcomes, except in the case of job satisfaction. Since the cross-level analyses using HLM were not significant, moderation analyses were conducted using OLS regression. The moderation analyses were significant only in the case of physical health symptoms and the results were not in the expected direction. Potential explanations for the results and future directions are discussed.
To my parents: I wouldn’t be here if it wasn’t for you. Thank you for always encouraging me to be the best I can, and for loving me even when I wasn’t.
They say it takes a village to raise a child. I think writing a dissertation is no different than raising a child. If a dissertation is supposed to be a culmination of years of studying and specializing in a specific area and months of research looking into a particular problem or aspect within that field, then being able to write it all is only a result of multiple people supporting the researcher along in his or her journey in more ways than one.

I would like to acknowledge the valuable comments and inputs by my committee members, Dr. Mike Zickar, Dr. William O’Brien and Dr. Mary Ellen Benedict. They each brought in a different perspective that helped me not only think about the topic differently, but also present the information I found in a more comprehensive manner. I would also like to thank Dr. Chris Nye for his help with the statistical analyses.

Additionally, I would also like to recognize the faculty and staff of the Psychology department at Bowling Green State University for everything they have taught me and for everything they have done for me over the course of my time in graduate school.

The data for this study was collected at Infosys Limited. I would like to acknowledge Dr. Matt Barney for his support and encouragement and Reshma Nayak and her team for their instrumental support and diligent phone call reminders to participants, without which collecting group-level data would have been impossible. The idea for this dissertation may have never occurred to me, if it hadn’t been for Dr. Aarti Shyamsunder, my ex-mentor and internship supervisor. I would also like to thank my colleagues and friends at Infosys Ltd. for their encouragement and kind words even in my bleakest moments.
This dissertation would not be what it is, if not for my advisor, Dr. Steve Jex. He has not only guided me in my thesis and dissertation, but has also taught me what it means to do good research. I am eternally grateful to him for taking me under his wing and for helping me choose my research and career paths.

I would also like to acknowledge all my friends, without whose love and support, I would not have survived graduate school or kept my sanity. Thank you for telling me I would make it through all of it and for your kind words, your smiles that always managed to cheer me up and for simply being there. In particular, I would like to recognize Sabiha Parveen, for being not just my house-mate, but my family and Dr. YoungAh Park for being the perfect role model in every aspect of life and helping me learn how to be a good graduate student.

I would also like to thank Arshat Chaudhary for his support, both instrumental and emotional. Thank you for not giving up on me, for calming my fears and assuaging my doubts, for listening to me patiently when I had to vent my anger and frustration, for celebrating with me in my triumphs and for loving me through it all.

Last, but certainly not the least, I wouldn’t be who I am (let alone, write this dissertation), if not for my family. I would like to acknowledge my grandparents for their unconditional love and for accepting me for everything I am and everything I am not. I would also like to acknowledge my parents, for showing me their dreams while helping me find mine; for being the best they could while helping me see what I could do and who I could be; for loving me and believing in me even when they didn’t understand me.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Abusive Supervision</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Employee Well-Being and The Experience of Strain</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Main Effects</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Mediators and Moderators</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Social Context as a Moderator</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>The Social Context of Undermining Behavior</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>The Current Study</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Moderation Effects</td>
<td>14</td>
</tr>
<tr>
<td>II</td>
<td>METHOD</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Context and Organizational Setting</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Participants and Procedure</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Measures</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Abusive Supervision</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Physical Health Symptoms</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Psychological Health</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Emotional Exhaustion</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Job Satisfaction</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Control Variables</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Sex</td>
<td>25</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figures</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Study Hypotheses</td>
<td>57</td>
</tr>
<tr>
<td>2 Graphical Representation of Interaction Analysis for Physical Health Symptoms (OLS Regression)</td>
<td>58</td>
</tr>
<tr>
<td>3 Graphical Representation of Interaction Analyses for Emotional Exhaustion (with Log Transformed Variables)</td>
<td>59</td>
</tr>
</tbody>
</table>
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Descriptive Statistics for the Scales</td>
<td>60</td>
</tr>
<tr>
<td>2</td>
<td>Intercorrelations among study variables</td>
<td>61</td>
</tr>
<tr>
<td>3</td>
<td>HLM Results for the Full Model (Control variables, level 1, level 2 and Interaction Term)</td>
<td>62</td>
</tr>
<tr>
<td>4</td>
<td>HLM Analyses with Control and Level 2 Variables</td>
<td>63</td>
</tr>
<tr>
<td>5</td>
<td>Main Effect Results</td>
<td>64</td>
</tr>
<tr>
<td>6</td>
<td>Moderated Regression Analyses with Group-Level Perceptions of Abusive Supervision as a Moderator of the Relationship Between Individual-Level Perceptions of Abusive Supervision and Physical Health Outcomes</td>
<td>65</td>
</tr>
</tbody>
</table>
CHAPTER I. INTRODUCTION

SOCIAL CONTEXT OF ABUSIVE SUPERVISION

Leadership and supervision are almost inevitable aspects of most jobs. Supervisors play an integral role in not only orienting and assimilating an employee toward and within the organization but are also primarily responsible for assigning tasks and instructing their subordinates on how to go about accomplishing them. Also, in many situations, subordinates come to see their supervisors as representatives of the organization. They take on the roles of being symbolic manifestations of what the organization stands for and believes in. This often means that employees see the organization as being similar to their supervisor; any behavior that the supervisor chooses to engage in is seen as being approved by the organization and the way a supervisor treats his or her subordinates is seen as the way the organization decides to use its human capital.

Research in the area of leadership and supervision was first started as a way of understanding what makes for effective leadership and supervision and what might be the characteristics and markers of good supervisors and leaders (Tepper, 2007). However, in the past two decades, researchers have increasingly turned and focused their attention to understanding the negative or dark side of not just leadership, but also workplace interactions.

Despite of the relatively vast literature on the topic of abusive supervision, little is known about how the social context in which the abuse takes place impacts abusive supervision and its outcomes. This study hopes to take a new look at this issue and extend the existing literature on this topic by investigating group level agreement on the level of abusive supervision and how it interacts with individual perceptions of abusive supervision to buffer the negative outcomes for the subordinate.

*Abusive Supervision*
Abusive supervision has been defined as “subordinate’s perceptions of the extent to which supervisors engage in sustained display of hostile verbal and non-verbal behavior, excluding physical contact” (Tepper, 2000, p. 178). There are three specific aspects of this construct that make it different from other negative workplace interactions. First, abusive supervision is a subjective experience in that it refers to an individual’s perceptions of his/her supervisor’s behavior. Second, it refers to sustained behavior on the part of the supervisor. Supervision can only be considered abusive if it is consistent and long-term in nature. Therefore, a boss yelling at a subordinate once in a blue moon or behaving rudely as a result of the boss having a bad day cannot be considered abusive supervision. Finally, it refers to behavior that is willful on the part of the supervisor. Supervisor behavior can only be considered abusive supervision when the supervisor deliberately and knowingly engages in negative behavior, as opposed to making a rude comment or being unaware of how his or her behavior might negatively impact the subordinate (Tepper, 2000). Examples of abusive supervision include invasion of privacy, throwing tantrums, shouting and public ridicule of the subordinate.

Understanding supervision and more importantly abusive supervision is important for a number of reasons. Tepper (2007) suggests that approximately 14% of employees experience abusive supervision (in the form of being yelled at by their bosses, being ridiculed, or being undermined.) and this affects not only the individual’s well-being, but also results in huge costs for the organization (approximately 23 billion Dollars in the form of employee absenteeism, turnover, or reduced or lost productivity). Also, past research suggests that abusive supervision can have detrimental effects on a number of individual outcomes. Researchers found that abusive supervision was negatively related to subordinates’ organizational citizenship behaviors in a study conducted with Air National Guard members (Zellers, Tepper and Duffy, 2002). Research on retaliatory behaviors found that abusive
supervision led to subordinates engaging in supervisor-directed, organizational as well as interpersonal deviance (Mitchell and Ambrose, 2007). Abusive supervision was also found to be related to interpersonal and supervisor-directed deviance as well as depression (Alexander, 2011). In his original study on abusive supervision, Tepper (2000) found that individuals, who perceived their supervisors to be abusive, were more likely to quit the organization. Of the people who remained with the organization, subordinates who perceived their supervisor to be abusive showed lowered job and life satisfaction, along with a reduction in normative and affective commitment. Also, individuals reported experiencing higher psychological distress. Other research also showed reduced job satisfaction among subordinates who experience abuse in the workplace (Tepper, Duffy, Hoobler & Ensley, 2004; Schat, Demarias & Kelloway, 2006). Researchers have also reported negative relationship between abusive supervision and organizational commitment in addition to what Tepper (2000) reported (Duffy, Ganster & Pagon, 2002; Schat, et al., 2006). Research also suggests that victims of abusive supervision report higher intentions to quit (Schat, et al., 2006).

Not only does abusive supervision lead to negative outcomes in the workplace, it also leads to negative outcomes for the individual’s well-being at home. In a study by Hoobler and Brass (2006), researchers found that when individuals were abused by their supervisors at work, they were more likely to harbor sustained negative affect toward family members or partners at home and subordinate’s family members or partners were more likely to report negative attributions directed toward them at home. This suggests that abusive supervision may not only be corrosive and damaging while the individual is at work, but can also have carry-over effects wherein it may interfere with the individual’s well-being and relationship with family members at home. Tepper (2000) reported that individuals who experience abusive supervision were more likely to report conflict between work and family.

*Employee Well-being and the Experience of Strain*
A number of studies have looked at employee health and well-being as outcomes of workplace policies and interactions. Just as there are a number of studies looking at health and well-being, there are several ways in which it has been defined and operationalized. Researchers have looked at Subjective Well-Being as an overarching construct that includes other constructs such as job and life satisfaction, positive affect and low levels of negative affect etc. (Diener, 2000). In a study by de Jonge and Schaufeli (1998), researchers studied the effect of job demands, job autonomy and workplace social support on employee well-being. In this study, well-being was conceptualized as job satisfaction, job-related anxiety and emotional exhaustion. In another study trying to understand Karasek’s Job Demand-Control model and its effect on employee well-being, researchers conceptualized well-being as both their physical as well as psychological well-being and employee’s satisfaction with their work (de Jonge, Bosma, Peter & Siegrist, 2000). They studied well-being by measuring emotional exhaustion, psychosomatic health complaints, physical health symptoms and job satisfaction.

Employee well-being has also been studied as an outcome of supervisor behaviors. Gilbreath & Benson (2004) conducted a study on supervisor behaviors and its impact on employee’s psychological well-being. Their aim was to understand how positive supervisor behaviors play a role in employee’s experience of well-being over and above well-being explained by other positive and negative factors; both in the workplace as well as outside of the work environment. They found that supervisors’ positive behaviors in the workplace (communication, consideration, social support, organizing, group maintenance etc.) influenced employee’s psychological well-being over and above other positive and negative factors in the workplace (support from other people at work and stressful work events) as well as in their home /non-work environment (age, health practices, support from home and stressful life events). This study adds to what other studies in the past have found about
support supervision and employee experiences of well-being. In his original study investigating abusive supervision, Tepper (2000) found that subordinates who experienced abuse from their supervisors were more likely to quit the organization. Further, those who continued with the organization showed lower levels of not only job satisfaction, but also life satisfaction, thus indicating that abusive supervision can not only affect the employee at work, but also reduce their well-being outside of the work environment.

Studying employee well-being is important for many reasons. In a study making a business case for why employers or organizations should invest in providing health care to employees, researchers investigated whether health care costs actually have an impact on employee productivity (Goetzel, Ozminkowski, Sedered & Mark, 2002). In this study, researchers studied employee depression and its impact on the business. The study indicated that it was important for employers to provide health care coverage that would not only take care of employee’s physical health, but also their mental health, because there was evidence to suggest that depressed individuals were just as much a burden on the organization’s productivity as were physically ill employees. Depression increased the likelihood of absenteeism and short-term disability and was related to higher turnover and suboptimal performance. This study further provides evidence that when studying employee well-being, it is not only important to consider the employee’s physical health, but also their psychological health.

In addition to looking at employees’ physical and psychological health, it is important to consider their emotional well-being. Schaufeli, Taris and van Rhenen (2008) explored whether workaholism, work engagement and burnout were all sub-dimensions of a single overarching construct, or if they were in fact distinct concepts and should be therefore measured separately. The authors’ aim was to empirically show that these three concepts are distinct measures of well-being and should not be clubbed together. The concepts are inter-
related and correlate with each other as well as with employee experiences of physical and psychological health symptoms. The study made an important point that although work engagement was developed out of burnout research as a way of completing the spectrum from worker “un well-being” to worker well-being, it is important to consider both aspects when understanding employee health as a result of workplace factors.

As seen from these previous studies, most measures of employee well-being have taken into account both employee’s physical and psychological health as indicators of their strain experiences. These two measures together, give the most direct understanding of employee’s overall health and the immediate impact of stressors in the employee’s environment. At the same time, the most immediate consequence of abusive supervision will be on the employee’s perceptions of the job itself. As stated previously, supervisors are viewed as symbolic representatives of the organization and the supervisors’ treatment of the subordinates will be seen as behaviors that the organization sanctions and how the organization values its employees. Therefore, abusive supervision will also be expected to have an impact on employee’s job satisfaction. Finally, having your boss belittle and ridicule an employee and engage in other non-physically abusive behaviors is likely to be emotionally taxing for the employee. Even if employees aren’t being abused all the time, the fear that it will happen anytime is likely to keep them on guard all through their work hours and lead to emotional exhaustion.

For the purpose of this study, employee well-being will be determined by measuring employee’s strain reactions in the form of physical and psychological health symptoms, along with their experiences of emotional exhaustion and their levels of job satisfaction. These four outcomes will be used as indicators of the employee’s experience of strain as a result of their perceptions of abusive supervision and as a source of our understanding of their well-being.

*Main effects:*
Although research has already found a relationship between abusive supervision and their experiences of strain reactions, this study aims to replicate these findings. Abusive supervision at the individual level will be positively related to employee experiences of strain and will reduce employee’s job satisfaction.

*Hypothesis 1: Individual-level perceptions of abusive supervision will be positively related to individual-level experience of physical health symptoms.*

*Hypothesis 2: Individual-level perceptions of abusive supervision will be positively related to individual-level experience of psychological health symptoms.*

*Hypothesis 3: Individual-level perceptions of abusive supervision will be positively related to individual-level experience of emotional exhaustion.*

*Hypothesis 4: Individual-level perceptions of abusive supervision will be negatively related to individual-level reports of job satisfaction.*

**Mediators and Moderators**

Since the first time Tepper (2000) defined abusive supervision, several studies have not only investigated its effect on several individual and organizational outcomes, but also studies work and non-work factors that moderate and mediate these relationships. In his original study looking at abusive supervision, Tepper (2000) found that the relationship between abusive supervision and the outcome variables was mediated by perceptions of injustice. Additionally, Schat et al., (2006) reported that irritation with supervisor and fear of abuse in the future also explained some of the outcomes of abusive supervision.

Personality has also been studied as a potential moderator of the relationship between abusive supervision and individual outcomes. Researchers have found that abusive supervision is positively related to a subordinate’s dysfunctional resistance (such that they refuse to perform tasks and duties) (Tepper, Duffy & Shaw, 2001). This relationship was however, moderated by subordinates’ personality, such that individuals high in
conscientiousness and agreeableness were less likely to show dysfunctional resistance in response to abusive supervision. Additionally, Bamberger and Bacharach (2006) found that abusive supervision was positively related to subordinates’ problem drinking behaviors. However, this relationship was again mitigated by conscientiousness and agreeableness levels in the subordinates. Alexander (2011) found that abusive supervision was positively related to organizational deviance and that narcissism was a significant moderator of this relationship. The results also suggested that subordinates high in narcissism were more likely to engage in organizational deviance in response to abusive supervision. Finally, the study also reported that supervisor support moderated the relationship between abusive supervision and anxiety such that when supervisors were perceived to be abusive and showed support at the same time, it led to employees experiencing more anxiety than when supervisors were perceived only to be abusive and not supportive.

Yu-Wu and Hu (2009) found that abusive supervision was positively related to subordinate’s emotional exhaustion. They also reported that this relationship was moderated by subordinates’ perceived coworker support as well as their susceptibility to emotional contagion (the extent to which an individual’s emotions are influenced by others). In the previously cited study on the relationship between abusive supervision and workplace deviance, Mitchell and Ambrose (2007) found that the subordinate’s negative reciprocity beliefs moderated this relationship. Negative reciprocity beliefs refer to the idea that retribution is the only response to abuse and injustice. Researchers found that individuals having greater negative reciprocity beliefs were more likely to engage in both supervisor-directed as well as organizational deviance in response to abusive supervision.

Research on abusive supervision therefore suggests that abusive supervision can have detrimental effects on the individual as well as the organization. In general, it impacts individuals’ job satisfaction, their productivity, organizational citizenship behaviors along
with their physical and psychological well-being. At the same time, the subordinates’ personality characteristics, their beliefs and their perception of support available from others can both positively and negatively moderate the relationship between abusive supervision and various outcomes. Although this research is helpful, it does not provide us with information as to what happens when abuse is directed toward one individual alone, versus when others around an employee equally suffer from abusive supervision.

**Social Context as a Moderator**

Although research has looked into the abovementioned outcomes as well as some moderators and mediators of abusive supervision, there is no research that looks into how the social context in which a supervisor abuses a subordinate impacts the relationship between abusive supervision and various individual and organizational outcomes. As stated previously, supervisors are rarely responsible for directing one individual alone. In most organizational situations, supervisors are responsible for multiple subordinates. This means that, individuals work in groups or at least have similar/referent others with which to compare themselves.

Leon Festinger first introduced social comparison theory in 1954 stating that we as humans have a constant need to evaluate our opinions, abilities and attributes. The way in which individuals typically do this is by comparing themselves with someone who is most similar to them. Since the introduction of the theory over 60 years ago, several researchers have studied this area to understand how this comparison happens and the effect it has on the self-evaluator. Festinger mentioned a unidirectional nature of this comparison in his original paper; however, he did not state which direction the comparison would take place, i.e. upward or downward.

Taylor and Lobel (1989) state that one of the major reasons individuals indulge in social comparison is to boost their self-esteem or to make themselves feel better about their
current situation. They looked at how social comparison theory works under situations of threat. They looked at research done with cancer patients and their use of self-comparison with other cancer patients to evaluate their need for downward comparison to feel better about themselves as well as their need to make upward contacts. The same situation could apply to subordinates in the workplace who are abused by their supervisor.

If supervision takes place in a group setting, then it is also likely that subordinates receiving feedback from their supervisors (both positive and negative) are likely to compare themselves against their coworkers working under the same supervisor. Subordinates are likely to evaluate their standing in the group based on how their coworkers are treated by their common supervisor. When the supervisor is equally abusive toward all subordinates, social comparison among subordinates should not lead to any negative self-evaluations (and thus to negative outcomes) or at least should reduce the negative impact of the abuse, given the shared nature of the abuse. However, when a subordinate is singled out, social comparison should not only make the individual evaluate the situation more negatively and react negatively, but also feel more isolated.

Workplace undermining is one of the forms of workplace abuse and one of the studies on undermining looked at how the social context in which supervisors and co-workers undermine subordinates, affects a number of individual-level outcomes for the employees (Duffy, Ganster, Shaw, Johnson & Pagon, 2006). They found support for the social comparison hypothesis and concluded that it is important to consider the social context of undermining in order to fully understand its impact on individual employees.

The Social Context of Undermining Behavior

In this study looking at the social context of undermining behavior at work, these researchers found that the social context moderated the relationship between individual level supervisor and coworker undermining and subordinate’s individual level outcomes such as
job satisfaction, job engagement, intentions to quit as well as counter-productive work behaviors (Duffy, et al., 2006). Duffy et al. (2006) developed a fairness theory perspective to understand how being “singled out” by the supervisor in the context of undermining behaviors impacts the individual on a number of different factors. Fairness theory (Folger and Cropanzano, 1998) suggests that individuals evaluate the fairness of situations by making should, could and would evaluations. Duffy et al. (2006) hypothesized that individuals being undermined by their supervisors or coworkers will determine the fairness of the situation, by evaluating whether the supervisor or coworker should have engaged in the behavior, i.e., should they have behaved differently given the situation? They would also engage in a “would” analysis to understand if the same supervisor or coworker would have behaved differently had it been someone else. Finally, they would also consider if the individual could have behaved differently, i.e., did they have a choice in terms how they could have behaved? Duffy et al. (2006) argued that it is the “would” evaluation that helps an individual determine whether or not the situation was fair. If the individual is able to generate alternative scenarios using the “would” evaluation, they come to believe that the supervisor or coworker would have reacted or behaved differently had it been someone else, and thus they would be more likely to perceive the situation as being unfair.

The authors were interested in understanding how “would” comparisons influence the relationship between undermining and outcome variables. They hypothesized that when individuals are singled out by the supervisor or co-workers in terms of undermining behavior at work, individuals would be more likely to have stronger negative reactions to being undermined as opposed to when there are others who also suffer the same plight. They therefore decided to study individual level outcomes to individual level perceptions of supervisor and coworker undermining, when there was low or high group level agreement on the undermining behavior by the supervisor or coworkers.
In order to be able to make an even stronger case for the “singled-out” hypothesis, they studied this in multiple settings using multiple samples. They found the results to be consistent, i.e., being singled out (having low group-level agreement about the undermining behavior from supervisor or coworker) led to more negative reactions, across different types of work groups. For the first study, they used police force employees in the Republic of Slovenia, with each police unit in Slovenia acting as an individual group. Each police unit reported to a single supervisor and all the individuals working in the unit, provided group-level data. The researchers found support for their hypotheses and found that when individuals were singled out in situations of undermining, the relationship was significantly stronger between the experience of abuse and individual outcomes such as job satisfaction, intentions to quit, counterproductive work behaviors and depression.

The researchers further explored the same hypotheses with individuals working in situations where they didn’t interact as much with their work group. Researchers argued that the police units of Slovenia provided the perfect setting to study these issues; however, it was important to find out if they would find the same results where the groups weren’t as well-established as they were in the previous case. They therefore studied individuals working as national guards, who worked at other jobs full-time and were involved in this group only part-time and met with their supervisors and group members only occasionally. Therefore, these groups didn’t share the same level of cohesion as the police units. Researchers found that individuals who experienced undermining behaviors from their supervisors in situations where there was low group level agreement were less likely to be involved in the job.

They also explored the same issues using a student group-work sample to see if they would find the same results in a situation where the individuals would not only be involved in the group for a very short period of time, but also where there were no pre-established hierarchical supervisory roles. They again found that in situations where individuals
experienced undermining from other group members and there was low group level agreement on the undermining behavior, individuals were themselves more likely to engage in counterproductive work behaviors such as being absent during group-meetings as well as engaging in undermining behaviors themselves.

Finally, the researchers used a sample of workers employed with various domestic store locations of an international restaurant chain and found evidence that interactions between individual and group level coworker undermining and individual outcomes (such as job attitudes, well-being and deviant behaviors) were mediated by justice perceptions. These results suggested that being singled out can moderate the relationship between negative workplace interactions and outcomes for employees such that it exacerbates the relationship.

The Current Study

Although undermining is a form of abuse, it is important to understand the social context in which the supervisor engages in other acts and aspects of abusive supervision. Also, supervisors are rarely responsible for directing or leading a single individual. In most organizations they would be supervising multiple individuals within a work group/team. Understanding the social context of abuse is therefore important.

The aim of this study therefore is to look at how the relationship between individual-level perceptions of abusive supervision and individual-level outcomes is moderated by group-level perceptions of abusive supervision. In the case of abusive supervision, it is expected that subordinates will evaluate the ethics of the supervisor’s behavior; should he or she have behaved the way they did? Subordinates are also likely to make “could” and “would” evaluations, which suggest that they would evaluate if there were other ways the supervisor could have behaved, as well as would he or she have behaved similarly with other subordinates. The main focus of this study is to further explore the impact of these “would”
evaluations on the relationship between individual’s perceptions of abusive supervision and their experiences of strain reactions.

Moderation Effects

Similar to what Duffy et al. (2006) found, this study predicts that when there is high group level agreement about supervisor’s abusive behavior, the relationship between individual level perceptions of abusive supervision and outcome variables (i.e. the experience of physical, psychological and emotional strain reactions and their level of job satisfaction) would be weaker compared to when there is low group level agreement about the perceptions of abusive supervision. Having others around an individual who are suffering/experiencing the same problems is likely to provide the individual with more social support and opportunities to vent out which is likely to reduce the experience of strain reactions.

Hypothesis 5: Group-level perceptions of abusive supervision will moderate the relationship between individual-level perceptions of abusive supervision and individual reports of the experience of physical health symptoms. The relationship between individual-level perceptions of abusive supervision and reports of physical health symptoms will be significantly stronger when group-level perceptions of abusive supervision are low than when group-level perceptions are high.

Hypothesis 6: Group-level perceptions of abusive supervision will moderate the relationship between individual-level perceptions of abusive supervision and individual reports of the experience of psychological health symptoms. The relationship between individual-level perceptions of abusive supervision and reports of psychological health symptoms will be significantly stronger when group-level perceptions of abusive supervision are low than when group-level perceptions are high.

Hypothesis 7: Group-level perceptions of abusive supervision will moderate the relationship between individual-level perceptions of abusive supervision and individual
reports of emotional exhaustion. The relationship between individual-level perceptions of abusive supervision and reports of emotional exhaustion will be significantly stronger when group-level perceptions of abusive supervision are low than when group-level perceptions are high.

Hypothesis 8: Group-level perceptions of abusive supervision will moderate the relationship between individual-level perceptions of abusive supervision and individual reports of job satisfaction. The relationship between individual-level perceptions of abusive supervision and reports of job satisfaction will be significantly more negative when group-level perceptions are low than when group-level perceptions are high.

The main and moderation effect hypotheses are graphically represented in Figure 1.
CHAPTER II. METHOD

Since the aim of the study was to be able to measure abusive supervision and its health and well-being outcomes, not just with individuals, but also aggregate it to the group level, it was important that the measures be administered to groups of individuals working/reporting to the same supervisor/manager/boss. There were two rounds of data collection undertaken for the purposes of this study.

Context and Organizational Setting

The first round of data were collected at a large multinational information technology company in India. This company is one of the biggest in the country and was established approximately 30 years ago. Although it has recently grown to be a multinational firm with multiple campuses around the world, a majority of its employees are Indians who work from India. The organization was originally established by a group of 7 friends, most of who are now retired or plan to retire in the near future. The organization, having grown from just 7 people, to close to 150,000 employees in a matter of 30 years, is now going through rapid changes, most important of which is a change in its core leadership and culture. These rapid changes and growth have also brought with it concerns about negative workplace interactions and the need to study and understand what can be done to keep the work environment safe and happy for all employees.

Hofstede and colleagues (2010) describe India as scoring high on the dimension of power distance. His research indicates that people in India accept and expect individuals not to be treated equally and follow a hierarchical top-down structure in society and organizations. However, just like every culture has subcultures and nuances unique to those subcultures, the organization in this study also has some unique features. Although for the most part Hofstede’s descriptions of power distance fit the culture of this organization, it is also important to understand that a majority of this company’s business is done with
American firms. Individual employees are well-aware of the culture and work relationships among their American counterparts and many are also given the opportunity to work “on-site” for the companies they partner with and serve. Thus, the organization provides a unique cultural setting where on the one hand power-distance might be accepted and even expected (and as a result, so might abusive supervision), on the other hand, the employees work closely with western organizations and imbibe many of their cultural values as a way to provide better service to the company’s clientele.

The second round of data collection was done using a snowball technique where individuals known to the researcher were contacted and explained the aim of the study. They were asked to share the link to the online survey with other members in their work group/team reporting to the same supervisor/manager/boss. The employees from the second round of data collection belonged to a number of national and multinational organizations in various industries in India.

Although there are likely to be significant organizational culture differences between the IT Company (from the first round of data collection) and the organizations in the second round of data collection, it is important to note that the employees from these organizations who responded to the study (both from round one and two) identified themselves as Indians and were all currently working in India. Also, the companies were equally matched in terms of how much exposure their employees had received to their western/foreign counterparts.

Participants and Procedure

For the first round of data collection, participants were recruited at the IT Company using their internal server and mailing system. A random sample of 4500 employees (with their employee IDs and e-mail addresses) was obtained from the Human Resources department in the organization. This list was very diverse in terms of the departments within
the organization that these employees worked for as well as their job tenure (employees in this list had been working with the organization anywhere between 6 months up to 14 years).

The employees in this list were sent an e-mail soliciting nominations for other members in their current work group/team who report to the same boss/supervisor/manager as themselves. The e-mail explained that the study was being conducted by the organization as a way to understand supervision and leadership in the organization. There was no mention about abusive supervision in the e-mails as it may have caused fear and negative bias amongst the participants (even though they were assured that their responses would be kept confidential). Although the participants were told that the study was being conducted in collaboration with a university in the United States of America, the mailing system used to invite and remind participants to take the survey used the organization’s internal server. The survey was also set up on the company’s internal survey tool. It is therefore very likely that participants would have found it more difficult to trust the study and the researchers if abusive supervision had been mentioned as a focus of the study.

The participants were also given clear instructions that the people they nominate must be their peers, i.e. they shouldn’t be people who report to them or who work at the same level as them but report to a different manager/supervisor. This was done primarily because the organization has a history of conducting assessments and performance appraisals using a 360-degree feedback system and in order to make the purpose of this study clear, precautions were taken to make sure the participants were given clear instructions as to who they can and cannot nominate for this study.

The aim in using the nomination procedure was two-fold. For the purpose of the study, it was important to keep track of data received from groups of employees. Hence, the nomination process gave us the opportunity to mark which employees belonged to the same work group and reported to the same supervisor/manager/boss. Also, having been nominated
to participate by their co-workers, it was thought that employees would be more willing and likely to participate, thus leading to a better response rate.

The invitation e-mails as well as the reminder e-mails mentioned that after the second phase of the study (where participants will have to respond to a survey), they will have a chance to win Rs. 100 (approximately $2) gift cards to a coffee shop chain (for each member of their work group/team) if their team/group happened to be one of the first 50 teams/groups to respond. The e-mails mentioned that once the data had been collected, individuals will be notified if their teams will be receiving gift cards.

Participants were sent multiple reminders to nominate their peers and were given 2 weeks to complete the nomination. The script used for the original as well as the reminder e-mails can be found in the Appendix. Of the 4500 employees who were initially contacted, only 124 individuals nominated their peers for the second part of the study (response rate = 2.75%). However, participants were asked to nominate at least 4 of their peers so that the groups in our sample could be of a decent size. Of the 124 groups, only 104 groups met the criteria of having at least 4 members in their group. Therefore, only these 104 groups (with a total of 548 participants) were invited to take the survey.

The 548 participants for the second phase of the data collection were sent out invitation e-mails explaining the purpose of the study along with a link to the online survey. The first page of the survey included an online consent form explaining their rights as participants as well as the general purpose of the study and how the researchers plan to maintain confidentiality of the data. The HSRB approved consent form is also available in the Appendix. Multiple reminders were sent out to all the participants via e-mail over the course of 5 weeks when the survey was available online. After the 3-week mark, individuals who hadn’t participated yet were also reminded over the phone by a staff member working in the
organization. The invitation and reminder e-mails, along with the script used by the staff members for the phone reminders are available in the Appendix.

At the end of 5 weeks, of the 548 participants only 237 participants completed the survey (response rate = 43%). However, since the purpose of the study was to be able to look at both individual level and group level perceptions, it was important that we have usable data from groups of employees. Only 35 groups’ data were considered usable since they met the criteria for the minimum number of members in each group. The 35 groups on average had 4 participants per group and total of 154 participants’ data was used for further analyses.

For the second round of data collection, the same procedure was followed, where individuals known to the researcher were solicited nominations via e-mails and they along with the people they nominated were sent a link to an online survey. However, the survey used in the second round included 2 additional questions which required participants to give information about the department and organization for which they worked as well as their names. The participants were assured that this information would be kept confidential and would be used only for the purposes of organizing the data gathered into appropriate groups. The individuals initially contacted, were also asked to list the names of the individuals to whom they had passed the survey link in their work group/team. This process was primarily followed so that the names of individuals and the work groups/team they belonged to could be matched appropriately using both methods of arriving at the same results.

The content of the e-mail messages were the same for this round of data collection. Close to 20 people were contacted and asked to nominate their peers working with them in their work groups/teams and reporting to the same supervisor/manager/boss as themselves. This process resulted in a total of 48 participants (response rate = 45%) responding to the survey. However, as in the first round of data collection, only 31 participants’ data was usable resulting in 8 groups.
Since it was originally decided to conduct the study with only the employees from the IT Company, it was important to make sure that there weren’t any differences between the participants from the first and second rounds of data collection. For this reason an independent samples t-test was conducted for the 4 dependent variables in the study between these two sets of groups (data collected from the IT Company and data collected from individuals working in other organizations). The results showed that there was a significant difference between the groups only in the case of job satisfaction scores. For the other three dependent variables (physical health, depression and emotional exhaustion), there was no statistically significant difference. This may have been a result of unequal number of groups and individuals in both sets of data. It was therefore decided to combine the data from round one and round two of data collection for the rest of the analyses.

Combining the two sets of data resulted in a final sample size of 43 groups, with average group size being 4 employees per group and the final N for the study was 172. Majority of the participants were male (80%) and most of the participants in the sample (51%) were between 31 and 35 years of age. Almost all the participants (98%) responded saying they identified themselves as Indians. Only 3 participants chose not to answer this item in the survey. Most participants (48%) said they spent 1 to 5 hours per week working with their supervisor/boss/manager and between 5 to 15 hours on group projects (36%). With respect to job tenure, a majority of the participants seemed to have been working at their current job for 1 to 3 years (28%), with their current work group for 1 to 3 years (37%), with their current supervisor/manager/boss for 1 to 3 years (42%), for their current organization for 5 to 10 years (43%) and in their current department for 5 to 10 years (33%).

It is important to note that although participants were asked about the amount of time they spent working with their work group/team as well as on group projects, the survey didn’t ask any specific questions about the interdependency of their work on the work of other
members in their work group/team. For both rounds of data collection, we did have information about the specific groups/departments that individuals worked for and for the most part, the departments listed required the individuals to work together at least part of the time, even if each member of the group had independent projects that did not require him/her to work with other group/team members.

Measures

All participants were asked to respond to measures of the independent and dependent variables along with a few demographic and control variables.

**Abusive supervision** was measured using the 15 item scaled developed by Tepper (2000). Participants were asked to read each statement and respond how frequently their supervisor engaged in these behaviors on a scale from 1 to 7 (with 1 being “Never” and 7 being “All the time/Always”). Factor analysis showed the scale was unidimensional and had a reliability of .90.

**Physical health symptoms** were measured using the Physical Symptoms Inventory (Spector & Jex 1998). The original scale had 18 items; however, 3 items seemed inappropriate and intrusive (diarrhea, stomach cramps (non-menstrual) and constipation) and were therefore removed from the scale. Including these items would have made the participants uncomfortable (since Indians typically don’t like talking about such issues with non-health care providers) and it would have reduced the probability of participants continuing their participation in the study.

The scale was designed with the purpose of having individuals self-report on the symptoms they have experienced and are aware of themselves. Each item in the scale refers to a specific symptom and the respondent is asked to report on whether or not he or she has experienced that symptom in the past 30 days as well as the symptoms for which they have consulted a doctor. For each physical symptom, participants are asked to choose one of 3
options: 1 (they have not experienced the symptom at all), 2 (they have experienced the symptom, but did not consult a doctor about it) and 3 (they experienced the symptom and consulted a doctor about it).

Participants’ raw scores were summed such that the total number of symptoms for which they responded with a 2 was considered their score on subclinical levels of physical health problems and the total count of items to which they responded with option 3 were considered their score on clinical levels of physical health problems. However, the results revealed that clinical levels of physical problems had a very low base rate and it was considered more appropriate to combine the participants’ scores on subclinical and clinical levels of physical health problems and use the total score for the purposes of this study. The internal consistency reliability was calculated and found to be .70.

**Psychological health** was measured using the Zung Self-Rating Depression scale (Zung, 1965). Depression measures have been used in the past to understand employee psychological well-being. The scale is an indicator measure, similar to the PSI and required participants to respond how often they have experienced the various symptoms of depression in the past 30 days. Respondents were asked to rate each symptom on a scale of 1 to 5 with 1 being “Never” and 5 being “Most of the time”. The original scale had a total of 20 items. However, keeping in mind the participants’ cultural differences, items such as “I still enjoy sex” were considered inappropriate and therefore not included in the survey. The other 3 items that were removed were similar to items already used in the scale measuring physical health and were removed in an attempt to reduce the length of the survey. The scale is a good measure of sub-clinical levels of depression and hence appropriate for use in an organizational setting. Internal consistency reliability was calculated and found to be .80.

**Emotional exhaustion** was measured using the emotional exhaustion subscale from the Oldenburg Burnout Inventory (OLBI) (Demerouti, Bakker, Vardakou & Kantas, 2003).
Halbesleben and Demerouti (2005) conducted one of the first validation studies on the English translation of the OLBI and found that the reliability and validity of the scale were comparable to the more widely used Maslach Burnout Inventory (MBI). They stated that OLBI showed acceptable reliability (test-retest as well as internal consistency) as well as convergent and discriminant validity. The emotional exhaustion sub-scale is an 8 item scale and required participants to read statements and respond on a 7 point Likert scale with 1 indicating “Strongly Disagree” and 7 indicating “Strongly Agree”. The scale was factor analyzed to confirm that it was unidimensional and internal consistency reliability was found to be .80.

In a number of studies looking at job satisfaction, researchers have used single item measures. Wanous, Reichers and Hudy (1997) made a case for how single-item measures of job satisfaction are reliable and acceptable for use in organizational research. However, they also state that this should not be used as a case for using only single item measures when an established multiple item scale is available and could have been used. Scales with multiple items definitely have better reliability and should be given first preference over the use of single-item measures. Single item measures may only be used when space and time constraints overwhelm the need for the use of a multiple-item scale. For this reason, the current study measured job satisfaction using the 18 item Job In General (JIG) scale (Ironson, Smith, Brannick, Gibson & Paul, 1998). Ironson et al. (1998) argued that the JIG was a global measure of job satisfaction and provides differential information than using the composite score or the facet measures of the Job Descriptive Index (JDI) (which was not meant to be the purpose of the JDI in the first place). Participants were provided with a list of adjectives to describe their jobs and were asked to respond to each item with a “Yes”, “No” or “Cannot Decide” which was used in place of the “?” used in the paper and pencil versions
of the JDI and JIG. The scale was scored as per the scoring guidelines issued in the JIG manual. The scale had an internal consistency reliability of .85.

Control Variables

A number of other factors could play a role in influencing the relationship between abusive supervision and the various individual-level outcome variables. Toward the end of the survey, participants were asked to respond to a few demographic questions.

Age can not only determine one’s chronological age, but also be an indicator of maturity and job tenure. An individual’s chronological age has been shown to be related to the experience of an individual’s subjective well-being. In the annual review of Gerontology and Geriatrics, researchers discuss how the experience of emotions changes over the course of an individual’s life as well as how subjective well-being and the perceptions of quality of life are related to one’s age (Schaie, 1997; Shmotkin, 1989). It was therefore considered important to control for age.

Participants were asked to indicate their age on a scale of 1 to 7 with 1 being “between 21 and 25 years”, 2 being “between 26 and 30 years”, 3 being “between 31 and 35 years”, 4 being “between 36 and 40 years”, 5 being “between 41 and 45 years”, 6 being “between 46 to 50 years” and 7 being “over the age of 50”. This was done primarily to reduce effort on the part of the participants and to also make it easier to record the participants’ responses.

Sex was considered to be another important control variable. Women tend to be easier targets for abuse and other negative workplace interactions. Research shows that women in South Asia don’t have the same advantages as their Western counterparts (Fikree & Pasha, 2004). Also, the study was conducted in India, where gender disparity exists in terms of pay, representativeness and power despite both men and women being equally qualified for a specific position. Research also indicates that women and men experience affect and well-
being differently, with women reporting more negative affect than men, but experiencing the same amount of happiness as men (Fujita, Deiner & Sandvik, 1991). There also seem to be differences in the experience of subjective well-being between men and women (Shmotkin, 1989). Participant’s sex was therefore considered an important control variable. Participants were asked to indicate their gender by selecting 1 (male) or 2 (female).

Individual’s negative affect (NA) was also measured using the 10 items Negative Affect subscale from the PANAS (Watson, Clark & Tellegen, 1988). Past research has indicated that individuals scoring high in NA tend to perceive situations more negatively and also have stronger negative reactions than individuals scoring low on this construct (Fujita et al. 1991). Participants were given a set of words and phrases and asked to indicate on a scale of 1 to 7 how often they have felt this way in the past 30 days, with 1 indicating “Not at all” to 7 indicating “All the time”. The scale had an internal consistency reliability of .84.

Another important aspect to consider was the characteristics of the group to which these participants belonged. The nature of the group can also play a role in individual and group level perceptions of abusive supervision as well as the experience of well-being. Studies have indicated that there is a link between the amount of time employees spend at work and their experiences of subjective well-being (Greenhaus, Bedeian & Mossholder, 1987). It is therefore important to control for aspects such as work group size, number of hours spent per week with supervisor, on group project and with other group members. Participants were asked to indicate the number of hours they spent on/with these various aspect at work per week on a scale from 1 to 7 with 1 being “less than 1 hour”, 2 being “1 to 5 hours”, 3 being “5 to 10 hours”, 4 being “10 to 15 hours”, 5 being “15 to 20 hours”, 6 being “half of my work time” and 7 being “almost all of my work time”.

Participants were also asked to respond to some individual workplace characteristics such as job tenure, tenure with current work group and supervisor as well as organizational
tenure. These characteristics could also influence the results since the more time an individual spends with a specific supervisor the more likely he/she is to come to accept abusive behaviors as their supervisor’s usual way of conducting themselves and he/she may also be able to develop mechanisms that help him/her cope with the abuse over time. Hence it was considered important to control for these factors. Participants were asked to respond to the amount of the time they have spent with these various workplace characteristics on a scale of 1 to 5 with 1 being “less than 1 year”, 2 being “1 to 3 years”, 3 being “3 to 5 years” 4 being “5 to 10 years”, and 5 being “more than 10 years”.

All the scales used in the study can be found in the Appendix.
CHAPTER III. RESULTS

Descriptive Statistics and Correlations

Table 1 shows descriptive statistics of the various scales in the study. As can be seen, all the scales used in the study had acceptable, means and standard deviations. Participants seemed to use the full range of options for the scales, except in the case of Depression and Negative Affect. There seems to be some range restriction for these scales. This may have been a result of the nature of the scales themselves and what they were measuring along with some response bias on the part of the participants to not present themselves negatively. Also, the skewness for most study variables was below 1. It was slightly greater than 1 in the case of abusive supervision and negative affect. This again may be a result of what these scales were measuring as well as the general prevalence of these behaviors/affect in the overall population.

All the scales used in the study, also showed acceptable and relatively high internal consistency reliability. As stated previously, some of the scales had to be modified to make them more suitable for an Indian audience. The $\alpha$ for the scales ranged from .70 to .90.

Table 2 shows the intercorrelations between the important study variables. As can be seen from the table, the important study variables are significantly correlated with each other in the expected direction. Gender of the employee was significantly correlated with perceptions of abusive supervision, such that women were more likely to perceive abusive supervision than men. Gender was significantly correlated with emotional exhaustion, with women reporting experiencing more emotional exhaustion than men. The most surprising finding was that job satisfaction did not significantly correlate with any of the independent or dependent variables in the study.

Group-level Perceptions of Abusive Supervision
Group-level perceptions of abusive supervision were calculated based on the group’s individual perceptions of abusive supervision, minus the specific individual’s perception for which the group level variable was being calculated. For example, if there were 4 members in a group, the group-level variable was calculated based on the individual level perceptions of abusive supervision of the other 3 members in the group. Thus, each of the 4 group members would have a different group-level abusive supervision score that did not take into account their own individual level abusive supervision score. Other research looking at group-level effects have also calculated a new variable based on individual-level data in a similar manner. For example, research looking at task-significance within a group and leadership climate also aggregated individual level data to create group-level variables (Gavin & Hofmann, 2002). This variable also did not significantly correlate with any of the study variables.

**Main Effects (Hypotheses 1 to 4): Regression Analyses**

The current study proposed to replicate previously established links between abusive supervision and employee well-being outcomes. Regression analyses were conducted to test for the relationships between individual employee perceptions of abusive supervision and its impact on their experiences of strain, such as their physical and psychological health along with emotional exhaustion, and job satisfaction (Hypotheses 1 to 4). For these analyses control variables were entered in the first step, followed by abusive supervision and each dependent variable was tested individually in SPSS.

Hypothesis 1, which suggested that abusive supervision will be positively related to the employee experiences of physical health symptoms, was supported ($\beta = .362$, $p < .01$). Hypothesis 2 suggested that abusive supervision would be positively related to the experience of depression and it was found to be significant ($\beta = .462$, $p < .01$) as well. Hypothesis 3 was also supported ($\beta = .310$, $p < .01$) suggesting that abusive supervision was positively related to the experience of emotional exhaustion. Hypothesis 4 suggested that abusive supervision
would be negatively related to job satisfaction. However, the results did not support this prediction ($\beta = -.011, p = .89$). Table 5 shows the regression analyses for all the dependent variables.

*Moderation Effects (Hypotheses 5 to 8): HLM Analyses*

As noted earlier, the main aim of this study is to understand if group level perceptions of abusive supervision would interact with individual level perceptions of abusive supervision in predicting individual health and well-being outcomes. Since the study aimed to analyze individual and group level variables and the interaction between the two, it was important to use Hierarchical Linear Modeling (HLM) to test the moderation effect hypotheses.

HLM is one of the many statistical tools within the family of Random Coefficient Modeling techniques. It was originally introduced in the field of education, but has since become popular in organizational sciences since organizations are typically organized in a hierarchical fashion. Factors and decisions made at the top tend to have consequences on the lower-levels within that hierarchy (Hofmann, 1997). Several organizational characteristics exist that have cross-level effects (e.g. organizational environment factors and organizational structures, organizational technologies and organizational structures, group norms or stimuli and individual behavior, departmental characteristics and individual attitudes, climate/culture and individual behavior etc.) (Hofmann, 1997). As stated previously, supervisors influence and monitor the behavior of not just one subordinate, but a group of subordinates. Their decisions and behaviors therefore set the discipline standards for the group as well as aid in creating the group climate. It was therefore considered appropriate to use group-level perceptions as an indicator of the social context of supervision and study its impact on the relationship between individual perceptions of abusive supervision and individual-level outcomes.
Individuals in the current sample were nested within units and shared a supervisor, which made it very similar to the study conducted by Duffy and colleagues (2006) which investigated the social context of undermining in the workplace. This made HLM an appropriate statistical analysis for the purposes of this paper since it would neither violate statistical assumptions, nor lose lower-level variance (Hofmann, 1997). HLM was used with the intention to look at the interaction of individual level and group level perceptions of abusive supervision on the outcome variables in a “slopes as outcomes” or cross-level moderator analysis. As in Duffy’s study, the moderator variable for the current study was the group-level variable calculated by aggregating the individual level data (as explained above).

Jex and Bliese (1999) examined the collective efficacy beliefs (group-level variable) moderating the relationship between workplace stressors and strains. The researchers used multi-level modeling for this purpose. They discussed how HLM uses a 2-step process for looking at the effect of group level variable on individual level outcomes. In the 1st step the slopes and intercepts for each group are calculated. This takes into account the variance within each group. In step 2, the variability of the slopes and intercepts from Step 1 are used to get the means, which are then used to test for group-level effects. If the group-level variable has an impact on the variability of the intercept, it goes to show that the group-level variable has a main effect on the outcome variable. However, if it has an impact on the slopes, it means that it has a cross-level moderation effect. For this study, we are interested in looking at whether or not group-level perceptions of abusive supervision have an impact on the slopes for the various groups in our data set.

SAS was used to conduct HLM analyses for this study. In order to see if group-level perceptions of abusive supervision acted as a cross-level moderator between individual level perceptions of abusive supervision and individual-level outcomes, a full model with all the control variables, the level 1 and level 2 variables along with the interaction term was tested.
for each of the 4 dependent variables. The slopes and intercepts for these models were
allowed to vary randomly. The results were not statistically significant for the interaction
term for any of the dependent variables (depression $\gamma = .035, p = .65$; emotional exhaustion $\gamma = .207, p = .13$; job satisfaction $\gamma = -1.02, p = .59$). The model for physical health symptoms
as an outcome variable failed to converge. Table 3 shows the results and coefficients for the
HLM analyses with both level 1 and level 2 variables along with the interaction term.

Models with only level 2 (group-level perceptions of abusive supervision) were also
run for each of the 4 outcome variables. The intercepts and slopes were allowed to vary
randomly across groups. The results were again not statistically significant for any of the
models (physical health $\gamma = -.072, p = .28$; depression $\gamma = .001, p = .92$; emotional exhaustion
$\gamma = -.025, p = .28$; job satisfaction $\gamma = .523, p = .16$). Table 4 shows the results and
coefficients for the HLM analyses with the level 2 variable.

These results suggested that there may not have been enough variability between the
groups themselves and hence our attempts to see if there was a difference between the
intercepts and slopes between various groups turned out insignificant. Interclass correlations
(ICCs) were therefore calculated based on an intercepts only and slopes only model. The
ICCs for the intercepts only model were all below .70 (McGraw & Wong, 1996) (physical
health = .071; depression = 0; emotional exhaustion = .117; job satisfaction = .400). The
ICCs for the slopes only models were also below the .70 threshold (physical health = .029;
depression = .018; emotional exhaustion = .031; job satisfaction = .126). These ICCs seem to
suggest that there is not much difference in the perceptions between members of these
various groups and their reactions to abusive supervision, leading to not enough variability
between and within groups.

These results suggested that there was no evidence found to support hypotheses 5
through 8.
Moderation Analysis (Hypotheses 5 to 8): OLS Regression Analyses

Moderation analyses were also conducted using the OLS regression. In a paper discussing the appropriate usage of HLM and OLS regressions, Newman, Newman and Salzman (2010) explain that HLM analyses take into account the reliability of each grouping variable and assign specific weights to those variables and then calculate the regression coefficients. This increases the risk of committing a Type VI error (“a catchall concept that describes the inconsistency between the research question of interest and the statistical model” (p. 4, Newman, et al. 2010)) when running HLM models. Newman et al. (2010) also write that “HLM produced appropriate error terms that control for potential dependency due to nesting effects”. Looking at the interaction in HLM is similar to looking at OLS regressions. We are testing to see if the level 2 had an effect over and above that produced by level 1 (after controlling for level 1). So, by using HLM we are testing to see if the 2nd level accounts for significant amount of variance, and for the “differential effect across the area of interest, but not over and above the main effects. Only multiplicative slope differences are being tested, but not the slope differences independent of the main effects”. Hence interaction effects in HLM and OLS could be different.

Hence, Hypotheses 5 to 8 were re-tested. The independent variables were centered in order to minimize the effect of multicollinearity. Control variables were entered in step 1, followed by the individual and group level perceptions of abusive supervision in step 2 and the interaction term in step 3. The results indicated that the moderation was significant only in the case of physical health symptoms ($\beta = -1.280$, $p < .05$). Figure 2 represents the results graphically. The figure shows that the results did support to the “singled-out” hypothesis. The amount of physical strain experienced is higher when individual-level perceptions of abusive supervision are high, but group-level perceptions of abusive supervision are low. Similarly, when group-level perceptions of abusive supervision are high and individual-level
perceptions of abusive supervision are also high, the amount of physical strain experienced in lower. This supports that having higher group-level agreement may provide the individual with more support and thus act as a buffer against the negative impact of abusive supervision. However, the figure also reveals a surprising finding that shows that individuals experienced greatest amount of physical strain when their perceptions of abusive supervision were low, but that of the group was high. The moderation analyses were not significant in the case of the other dependent variables (depression, $\beta = .498, p = .393$; emotional exhaustion $\beta = 1.040, p = .126$; job satisfaction, $\beta = .070, p = .929$). Table 4 shows the moderation analyses for physical health symptoms. These results revealed that both simple regression and HLM analyses did not support the moderation hypotheses except in the case of physical health symptoms.
CHAPTER IV. DISCUSSION

The aim of the current study was to further explore the relationship between individual’s perceptions of abusive supervision at work and their experiences of strain reactions. Abusive supervision has been conceptualized as consistent non-physical threatening behavior from a supervisor that is deliberate in nature. Therefore, it consists of negative interactions that are directed from an authority figure on a regular basis and the authority figure being aware of his or her behavior. Past research in this area, has found consistent links between abusive supervision and its impact on several outcomes for the individual as well as those that impact the individual’s family outside of the workplace and for the organization itself in terms of lost productivity and the loss of human capital as a result of reduced job satisfaction, intentions to quit and attrition.

Although there is extensive research looking at the direct impact of abusive supervision on the abovementioned outcomes, as well as the moderators and mediators that influence this relationship, there is little known about how the social context in which supervision takes place impacts this relationship. Work and supervision typically take place in a group setting and this study proposed that based on social comparison theory, group-level perceptions of abusive supervision would also impact the relationship between individual’s perceptions of abusive supervision and their experiences of strain reactions which would serve as an indicator of the employee’s health and well-being. It was therefore proposed that group-level perceptions would moderate (or buffer) the relationship between individual level perceptions and their well-being outcomes in addition to individual level perceptions having a direct impact on health and well-being. Although the main effects were found to be statistically significant (consistent with past research), the moderation effect hypotheses were not supported. The following sections talk about these results in greater detail.
Main Effect of Abusive Supervision

The study predicted that individual level perceptions of abusive supervision would predict individuals’ reports on the experience of physical health, depression, emotional exhaustion and job satisfaction. The data supported these hypotheses, except in the case of job satisfaction.

Abusive supervision seemed to play a role in the individuals’ experience of physical and psychological strain. Research by LeBlanc and Barling (2004) showed that individuals experiencing aggression in the workplace (both directed by members within the organization as well as outside of the organization) reported experiencing less physical well-being. Although, it is interesting to note that abusive supervision is related to employee’s physical health, it is likely that the physical symptoms experienced by the individual are also a result of the comorbidity between the prevalence of physical symptoms when psychological symptoms are present. The correlation between the experience of physical health symptoms and depression was both positive and moderately high. Abusive supervision explained an additional 4% variance in the experience of physical health symptoms, over and above the variance explained by the control variables such as age.

Abusive supervision was also found to be related to the experience of psychological strain. Psychological strain was conceptualized as the experience of sub-clinical levels of depression in this study. The results showed that abusive supervision explained an additional 7% variance over and above that explained by the control variables. Having your boss be rude, ridicule you in public, invade your privacy etc. can impact an individual’s sense of psychological well-being, leading to symptoms of depression. This is consistent with past research showing a link between employee perceptions of his or her supervisor as being abusive and the experience of psychological distress (Gilbreath & Benson, 2004; Tepper, Moss, Lockhart & Carr, 2007; Tepper, 2007).
Abusive supervision also significantly predicted the experience of emotional exhaustion. Emotional exhaustion is distinct from both depression and physical strain, in that it has been conceptualized as a “chronic state of emotional and physical depletion” and refers to experiences that are more specifically work-related. The results suggest that, as a result of dealing with an abusive supervisor, employees are more likely to be emotionally drained at the end of the day, with little or no energy left for other activities. Employees, who have to be constantly on alert for acts of abuse from one’s supervisor, as well as brace themselves for the negativity that might surround their relationship with their supervisor, are likely to feel emotionally drained and exhausted. Since they have to be on high alert at all times, they are likely to use more cognitive resources and hence feel greater energy depletion as a result of their workday.

The study also predicted that the lack of job satisfaction would be an important outcome of abusive supervision. In addition to abusive supervision having an impact on the individual’s health and well-being, such that they would experience more strain reactions, the most immediate impact of abusive supervision will be on the employee’s perceptions of his or her job itself. Past research has shown a link between abusive supervision and employee’s job and life satisfaction (Tepper, 2007). However, the data for the current study did not support this prediction. Not only did the data not support the relationship between individual perceptions of abusive supervision and job satisfaction but it also did not show any statistically significant correlations between job satisfaction and any of the other important study variables.

The current study presumed that abusive supervision would have an overall impact on the employee’s perceptions of the job. The Job In General (JIG) scale was therefore used to measure individual’s job satisfaction. However, abusive supervision may have more specifically impacted the individual’s satisfaction with his or her supervisor in particular. Job
satisfaction as a whole may be driven by a number of factors such as the work itself that the individual is involved in, the organizational culture, pay etc., in addition to how the supervisor behaves towards the employee. Therefore, using the supervisor subscale of the Job Descriptive Index (JDI) may have been a more appropriate measure of job satisfaction (in particular job satisfaction that is impacted by one’s supervisor) in this case.

**Moderation Effects of Group-Level Perceptions of Abusive Supervision**

The main focus of the study was to investigate whether group-level perceptions of abusive supervision act as a buffer against the negative impact of individual level perceptions of abusive supervision on individual health and well-being. It was hypothesized that if other members in the work group/team also perceive the supervisor to be equally abusive, then there would be fewer opportunities for the individual to compare his or her situation with those of others and find that his or her supervisor behaves differently toward other members of his or her group/team, thus leading to fewer perceptions of injustice. It was therefore predicted that if individuals are less likely to perceive the situation as unjust, then they would also be less likely to react negatively to the situation and suffer as a result of it. The current study was modeled after a study conducted by Duffy and colleagues (2006) looking at supervisor and co-worker undermining in the workplace and how group-level perceptions of these behaviors from the supervisor and co-workers mitigated the negative impact of undermining when group-level agreement about these behaviors was high.

Since the study planned to look at the cross-level interaction between individual and group-level perceptions, HLM was considered most appropriate for testing this relationship. However, the results were not significant for any of the four dependent variables in the study.

Abusive supervision is a low base-rate behavior. In a study conducted by Tepper, Duffy and Shaw (2001) looking at subordinate’s personality as moderators of the relationship between abusive supervision and its outcomes for the individual, the researchers’ found the
mean for the abusive supervision scale to be 1.40 (SD = .56). Similarly, researchers looking at the antecedents and consequences of abusive supervision among supervisor-subordinate dyads in a telecommunication company in southeastern China, found the mean for abusive supervision ratings to be 1.49 (SD = .54) (Aryee, Chen, Sun & Debrah, 2007). Research looking at abusive supervision and workplace deviance, found similar ratings for abusive supervision (M = 1.82, SD = 1.30) provided by members called for jury duty in southeastern United Stated (Mitchells & Ambrose, 2007). Similarly, Zellars, Tepper and Duffy (2002) report the mean ratings for abusive supervision among Air National Guard members to be 1.70 (SD = .70). These results suggest that abusive supervision is in general a low base rate behavior and the means observed in the current study are similar to those found by other researchers looking at the same topic across different samples.

The abusive supervision scale asked participants to rate their supervisors’ behaviors on a number of explicit negative behaviors. Given that most supervisors in the workplace don’t engage in these behaviors on a regular basis, or may engage in more subtle forms of abuse, such as not giving enough information or disclosing full/critical information to their subordinates, micromanaging or being laissez-faire or having a combination of the two styles of supervision such that it is hard to predict when the supervisor might use what style etc. may not have been captured in this scale. Thus, although there were significant main effects for abusive supervision on some of the outcome variables it did not explain very large amounts of variance for these dependent variables.

It is also important to note that the group-level perceptions of abusive supervision, which was used as the level 2 variable for the HLM analyses, was calculated by averaging the abusive supervision perceptions of other group members in an individual’s work group/team. This may have been another reason for why HLM analyses did not show a significant moderation effect for the interaction between individual and group-level perceptions of
abusive supervision on the outcome variables. Given that the interaction term was calculated using the individual and group-level variable, multicollinearity may have played a role in the analyses. Also, most of the variance in the outcome variables may have been explained by the control variables and the level 1 (individual-level) abusive supervision variable, leaving very little to be explained by the level 2 (group-level) variable and the interaction term.

The results were also not statistically significant when only the level 2 variable was used to predict the outcome variables. The analyses also revealed that there wasn’t enough variability between groups in order to find a meaningful impact of abusive supervision perceptions on the outcomes. For the most part, the data were collected from one organization. The organization is known for its extremely ethical and moral culture and in general, is one of the more progressive organizations in the country that has tried to make the workplace as healthy and safe for its employees as possible. Although, the policies and procedures in place are more in keeping with the physical health and well-being of the employees in mind, this may to a certain extent have also translated into a culture where employees believe that the organization cares about their well-being in general and will try to protect them from all negative factors and hazards. This may have been another reason why there was no main effect found for the impact of abusive supervision on job satisfaction. These generalized perceptions about the organization across majority of the participants in the study may have also played a role in the lack of variability in perceptions of abusive supervision between groups.

Although data were also collected from individuals working in other organizations in other industries, this constituted a relatively small portion of the dataset. Also, given that each group had only about 4 group members, this may have been too small a group size to see enough variability within as well as between groups.
Moderation analyses were also conducted at the individual level of analysis using OLS regression. The results again were not statistically significant, except in the case of physical health symptoms. Looking at Figure 2, we can see that the moderation effect was significant and in the expected direction. It was hypothesized that when group-level perceptions of abusive supervision were low, and the individual-level perceptions were high, the individual would experience stronger negative strain reactions, than when group-level perceptions are high. The results indicate that group support may have played a role in buffering the individual to a certain extent against the negative impact of abusive supervision. The results provide support for the singled-out hypothesis that suggests that when individuals perceive their supervisors to be abusive, but don’t find support for their perceptions from other group members, they tend to experience more physical strain as a result of being a lone target for the supervisor’s abuse within the work group/team. However, further research will be required to understand the underlying mechanisms that drive these results.

The graph also revealed a surprising finding that showed that individual employees experienced the most amount of strain when their perception of abusive supervision is low and that of the group is high. This could suggest two things: 1. The individual may be experiencing additional strain as a result of being the “favored” one or the one who has been spared abuse by the supervisor, since this may not be seen favorably by other members of the work group/team. They may feel discriminated against or may fear discrimination in the future, not by the supervisor, but by their group/team members, thus leading to anxiety and the experience of strain. 2. Seeing how other members of the group/team seem to perceive their supervisor to be abusive, it is likely that although the individual is not experiencing the same abuse at the moment, they may fear the same treatment from their supervisor in the future and this may have resulted in the experience of strain as a result of the group’s perceptions of abusive supervision being high, even when their perceptions of abusive
supervision were low. These results may also be suggesting the existence of strain reactions among individuals who are not directly impacted by the abuse, but may be experiencing abuse vicariously through other group/team members.

Alternatively, the results seem consistent with the other moderation analyses conducted in this study, where we see that when individual-level perceptions of abusive supervision is high, the amount of physical strain experienced is almost the same irrespective of whether group-level perceptions of abusive supervision is high or low. This seems to provide additional support to the argument that individual-level perceptions play a bigger role in predicting health and well-being outcomes for the employee than how the work group/team may perceive the supervisor’s behaviors. The overall results seem to suggest that there may be some impact of the interaction between the individual and group level variables that might predict some variance in the outcome variables over and above that predicted by the control variables and the individual and group level variables themselves. It is possible that having more groups in the study, and having data from groups working in different organizations and industries may lead to better understanding of the interaction effects amongst the study variables.

*Exploratory Analyses*

In addition to conducting the moderation analyses using OLS regression, log transformations were also done on each of the main study variable. Since the means for some of the scales were so low and abusive supervision was thought to be a low base-rate behavior, it was considered appropriate to transform the variables such that the scores and ratings would be more appropriately represented and would be better constrained. The results however showed no difference from what was previously found based on the OLS and HLM analyses. The main effect for abusive supervision and depression was significant ($\beta = .273$, $p$
The relationship between abusive supervision and emotional exhaustion ($\beta = .134, p = .09$) and physical health ($\beta = .155, p = .06$) were significant at the .10 level. Abusive supervision did not significantly predict individual’s job satisfaction ratings ($\beta = -.115, p = .20$). These results are mostly consistent with the previous set of analyses. Additionally, the moderation effects revealed that the relationship between abusive supervision and emotional exhaustion were almost significant ($\beta = 4.44, p = .06$). The results are presented graphically in Figure 3.

The graph looks similar to the interaction graph for physical health symptoms, however, the results are surprising and not in the expected direction. It was predicted that group-level perceptions of abusive supervision would moderate the relationship between individual-level perceptions of abusive supervision and the experience of emotional exhaustion such that when group-level perceptions are high, individuals should experience lower levels of emotional exhaustion than when group-level perceptions are low. The results seem to indicate that when individual-level perceptions of abusive supervision are low, and those of the group are also low, individuals seem to experience the most amount of emotional exhaustion. On the other hand, when individual-level perceptions of abusive supervision are high, the amount of emotional exhaustion experienced is almost the same, irrespective of whether the group-level perceptions of abusive supervision are high or low. These results may be a result of the variables being transformed and hence may need to be interpreted differently. However, this may also be another indication that when individuals perceive high levels of abusive supervision, group-level perceptions of abusive supervision may be irrelevant to the experience of emotional exhaustion, further supporting the moderation effect results from previous analyses.

Another concern with respect to the lack of statistically significant results was the nature of the items included in the abusive supervision scale. The items in the scale seem to
range from verbal and explicit abuse to behaviors that may be indicative of another construct. Although the factor analysis conducted on the scale indicated that the scale was unidimensional, it was decided that additional analyses would be run by creating a sub-scale based on the items that were indicative of behaviors that were more explicitly abusive. Therefore, a new abusive supervision scale was formed with 10 items (item 1, 2, 4, 6, 8, 10, 11, 12, 14 and 15 – all items are available in the Appendix). The main effect analyses followed the same patterns as the previous OLS regression analyses with the full abusive supervision scale. The relationship between abusive supervision and depression ($\beta = .291, p < .01$), emotional exhaustion ($\beta = .183, p < .01$) and physical health symptoms ($\beta = .234, p < .01$) was significant, whereas that with job satisfaction ($\beta = .009, p = .92$) was not. The moderations analyses were not significant for any of the outcome variables.

Practical Implications

One of the major contributions of the study was that it looked at abusive supervision in an Indian context. Little to no research has looked at whether or not supervision is perceived to be abusive in the same way that it has been conceptualized in the western context. Although this study did not explore what the theoretical definition of abusive supervision should be, it did find that the phenomenon exists in India and is related similarly to employee/subordinate experiences of strain reactions as it is in the western context.

One of the most surprising findings was that even in an organization that has been the trend setter in making the workplace employee-friendly and taking measures to incorporate as many facilities and conveniences as possible to make the work environment healthy, safe and comfortable, there still exists negative behaviors that may lead to employee ill health or “un-wellbeing”. This suggests that, in addition to taking care of the physical environment, it is important for organizations to consider supervision and leadership behaviors to make sure
that employees are truly taken care of. It may also be important to enable an environment where employees can seek redress for grievances, even if they seem trivial and organizations may want to look into these issues right away and deal with them appropriately so as to set a standard for what is and is not acceptable supervisory behaviors.

The study also provides an insight into job satisfaction and how it should be conceptualized, especially in the case of studying abusive supervision in the workplace. The results from the study seem to suggest that abusive supervision does not directly impact the employee’s overall satisfaction with their job. Hence, using a more specific job satisfaction measure that taps into job satisfaction related specifically to the supervisor or affecting aspects of work life as a result of one’s supervisor’s behaviors may be more appropriate. Scales such as the supervision subscale of the Job Descriptive Index (JDI) should be considered for future studies looking at job satisfaction in this context.

Limitations

As with any research study, it is important to consider the results of this research in light of the limitations. The most important limitation was the lack of variability in the perceptions of abusive supervision among the participants and the work groups/teams to which they belonged. It is important to note that the participants in the study were recruited from organizations that belonged to the service provider industry. All of the participants in the study at least have a Bachelor’s Degree and worked with other individuals who were equally or more qualified than themselves. This may have been an important factor contributing to the lack of variability in the perceptions of abusive supervision. If more data had been collected from a larger variety of industries and organizations, it is likely that the results may have turned out differently.
Also, the criterion for including a group’s data for the study was set as the group having at least 4 members who have participated in the study. This number also may not have been enough. With only 4 members in each group, we may not have been able to capture the full range of abusive supervision perceptions and this may have been another reason for the lack of variability in the employee’s responses within the group for us to see significant results. Studies looking at cross-level interactions should consider the purpose of the study to estimate what the appropriate group size should be as well as the number of groups to include in the study.

One of the other limitations of this study is the sample size. Although given the number of variables explored in this study, the total N seemed appropriate, it is important to note that this study attempted to not only consider individual perceptions of abusive supervision, but also understand how group-level perceptions of abusive supervision impacted employee health and well-being. Given that the aim of the study was to understand the abusive supervision issue while taking into consideration the work group/team’s perceptions, it was important that there be enough number of “Groups” in the study. Even though multiple rounds of data collection were undertaken, only 43 groups of employees’ data were considered usable for the study. The results may have been different and more likely to have been statistically significant for the multilevel modeling analyses with data collected from more groups of employees.

The study also did not consider the nature of interactions within the groups themselves. Although participants were asked to state the amount of time they spent per week with their group members, we have little information regarding the content of interactions. Groups reporting to the same supervisor/manager/boss could very well have met as a team to discuss overall team/administrative issues and each member could still be working independently on their own project/task/work. If this is the case, then there is little cohesion
and fewer opportunities for group/team members to discuss their perceptions about their supervisor and be able to compare their situation to those of similar others. Therefore, studies looking at group-level phenomenon should try to understand the nature of interactions between the group/team members in addition to looking at the amount of time spent as a team.

Another limitation of this study is that the group-level variable used in the study was calculated using individual-level data. Although Duffy et al. (2006) used the same method for calculating group-level perceptions of supervisor and co-worker undermining, it may have been better to use a separate scale or measure to understand group-level perceptions of abusive supervision. Participants should have been asked about their perceptions of how other group members were treated by their supervisor. This may have not only made it unnecessary to have groups of individuals as participants, but may also have provided us with an insight as to the exact source of injustice perception. It is likely that irrespective of what the group-level perceptions may be about the supervisor, if the individual him or herself perceives the supervisor’s behavior toward other members of the group to be different (i.e. more positive) than it is toward him/herself, then it is likely that it is this difference in perception that is a greater predictor/moderator of abusive supervision and health outcomes than group-level perceptions. It is therefore likely that the information captured would be different, had the items been worded differently or if the abusive supervision scale had been modified to allow it to collect group-level perceptions instead of individual-level perceptions. Another alternative may have been to use a scale trying to capture the individual’s perceptions of the group/team’s climate. Future research should consider comparing individuals’ perceptions about the treatment of other group members by the supervisor with group-level perceptions of supervision to gain a better understanding of its impact on the individual’s health and well-being.
It is also important to note that individuals in the study worked for multinational organizations where they not only worked with different individuals, but also worked on different tasks. It is also likely that at any given point in time, these individuals may have been working with multiple individuals across the organization as well as outside the organization on various tasks or projects. Although, the study instructions asked them to rate the supervisor to whom they reported, it is possible that there may have been some discrepancy in who the other team members may have considered their supervisor or manager at the time of participating in the study. Though the possibility of this is very small, it could nonetheless have impacted the abusive supervision scores at the group-level. Since the data was collected mostly within a specific organization and using the snowball technique, there was little that could be done to gain specific information about the supervisor without asking the participants directly. In both rounds of data collection, asking for supervisor’s contact information or for some identifying information using which the group’s data could be matched, would have led to additional bias and lower response rates since participants may have feared negative repercussions from their supervisor as a result of participating in the study. Nonetheless, future studies may want to consider a different way of collecting data for this type of research.

Finally, it is certainly possible that social desirability played a role in how participants responded in this study. The study primarily looked at a negative construct and its ill-effects on the employees. Either because of the fear of negative consequences (since the study variables were very sensitive in nature), or in order to present a good/better image of themselves, their organization or their supervisors, the individuals may have reported more positively to the items in the study. Future studies should attempt to reduce the fear of negative repercussions by making the study completely anonymous or should try to control for social desirability by measuring it as part of the study.
Future Directions

Given the limitations of the study mentioned above, one of the most important things to look into would be a deeper exploration of the cultural differences in perceptions of abusive supervision and the experience of strain. Although the main effects of abusive supervision were found to significantly predict the experience of strain, the moderation effects of group-level perceptions were not significant. Hofstede (2010) notes the Indian culture to be slightly more collectivistic than individualistic and as having a greater tolerance for power-distance in social and organizational hierarchies. Therefore, it was surprising to note that group-level perceptions of abusive supervision did not have an impact on the individual-level perceptions of abusive supervision and employee experiences of strain. In order to draw definite conclusions about the impact of the work group/team on this relationship between abusive supervision and employee health and well-being, it would be important to conduct more studies looking at these relationships with employees in other organizations and industries within India.

Also, since this study was conducted using individuals working with multinational organizations, the individuals were more exposed to western cultures and the nature of hierarchies and power-distance may have been very different from organizations that are much smaller in scale and have a very traditional Indian structure and culture. Future research should try to explore this phenomenon with indigenous Indian organizations to gain a better understanding of abusive supervision and its outcomes in the Indian context.

There are also no studies looking at the group-level perceptions of abusive supervision and its interaction with individual-level perceptions of abusive supervision in the western context. The Duffy et al. (2006) study looking at supervisor and co-worker undermining was one of the first attempts at capturing the impact of the social context on the
stressor-strain relationship with respect to negative workplace interactions. Therefore, another important step to take would be to look at the same variables as used in the current study in a western organizational setting. This is likely to provide greater insight into whether the relationships found in the current study are unique to the Indian organizational/cultural context or if they would also found to be true in a western context.

Finally, this study was cross-sectional in nature and gathered information from only the individuals working within the work groups/teams. Although this did provide a better understanding of abusive supervision from multiple members working under the same supervisor/manager/boss, future studies should attempt to gather information about the supervisor’s behaviors not just from the subordinates, but also from the supervisors’ manager/boss. This may lead to better insight into whether the supervisor’s negative behaviors are directed only toward those under him/her or if these behaviors are also recognized and noticed by those above him or her. If the supervisor’s behaviors are consistent, then, it is likely that it may be seen as his or her nature or personality to act that way and hence may lead to fewer negative reactions from his or her subordinates. Also, in addition to having individuals self-report on the experience of strain reactions, it may be important to also capture this information from their family members. Family members may also be able to provide insight into whether the abuse experienced by individuals at work is displaced on to family members once they come home.

Additionally, it may be important to gain a better understanding of the supervisor-subordinate relationship. It is very likely that there may be behaviors that the subordinate engages in that further leads to the supervisor being abusive toward him or her and this in turn could lead to a vicious cycle. For example, if individuals are not present at work or are late, they may be more likely to be abused, which may in turn cause them to experience more negative reactions as well as want to shy away from work more often, thus further leading to
the supervisor picking on them. The current study only asked subordinates to rate their supervisor’s behaviors. It may be equally important to ask for supervisor ratings of the subordinate to gain a more holistic perspective on the nature of the relationship between the supervisors and subordinates and to understand the underlying cause of the abuse.

Conclusion

This study aimed to gain a better understanding of abusive supervision in the workplace and its impact on the employee’s health and well-being not only using individual-level, but also using group-level data. Although the data showed that individual-level perceptions of abusive supervision did impact employee’s experiences of physical, psychological and emotional strain, it did not support the relationship between abusive supervision and job satisfaction. Also, the group-level perceptions of abusive supervision did not seem to moderate these relationships. The results showed that a phenomenon that has so far only been considered to be true in the western context was also found to be true in an Indian organizational setting. Despite there being more power-distance (which should have lowered the perceptions of abusive behaviors and made it more acceptable) the results suggest that abusive supervision is negatively related to employee health and well-being. Future studies should further explore these relationships and better understand the role of social support as well as social comparison in how abusive supervision impacts an individual’s health, as well as their perspectives about their job.
References


Figure 1: Study Hypotheses

Social Context of Abusive Supervision

Group-level Perception of Abusive Supervision

- H5(-)
- H6 (-)
- H7 (-)
- H8 (+)

Employee Well-Being:
- Physical Health Symptoms
- Depression
- Emotional Exhaustion
- Job Satisfaction

Individual Perception of Abusive Supervision

- H1 (+)
- H2 (+)
- H3 (+)
- H4(-)
Figure 2. Graphical Representation of Interaction Analysis for Physical Health Symptoms (OLS regression)
Figure 3. Graphical Representation of Interaction Analysis for Emotional Exhaustion (with Log Transformed variables).
### Table 1. Descriptive Statistics for the Scales

<table>
<thead>
<tr>
<th></th>
<th>α</th>
<th>Mean</th>
<th>SD</th>
<th>Observed Range</th>
<th>Possible Range</th>
<th>Skewness</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Abusive Supervision</td>
<td>.90</td>
<td>1.77</td>
<td>.92</td>
<td>0 – 6.13</td>
<td>0 – 7</td>
<td>1.67</td>
<td>172</td>
</tr>
<tr>
<td>2. Depression</td>
<td>.80</td>
<td>2.14</td>
<td>.54</td>
<td>1.07 – 3.69</td>
<td>1 – 5</td>
<td>.52</td>
<td>170</td>
</tr>
<tr>
<td>3. Emotional Exhaustion</td>
<td>.80</td>
<td>3.43</td>
<td>1.07</td>
<td>1.13 – 6.50</td>
<td>1 – 7</td>
<td>.21</td>
<td>171</td>
</tr>
<tr>
<td>4. Job Satisfaction</td>
<td>.85</td>
<td>30.14</td>
<td>15.08</td>
<td>0 – 54</td>
<td>0 – 54</td>
<td>.15</td>
<td>170</td>
</tr>
<tr>
<td>5. Physical Health</td>
<td>.70</td>
<td>4.41</td>
<td>3.00</td>
<td>0 – 15</td>
<td>0 – 15</td>
<td>.47</td>
<td>172</td>
</tr>
<tr>
<td>6. Negative Affect</td>
<td>.84</td>
<td>2.02</td>
<td>.78</td>
<td>1 – 5</td>
<td>1 – 7</td>
<td>1.31</td>
<td>171</td>
</tr>
</tbody>
</table>
Table 2. Intercorrelations among study variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Gender&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-1.58*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. No. of hours spent with supervisor per week&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-1.52*</td>
<td>0.070</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. No. of hours spent on group projects per week&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-1.42</td>
<td>0.090</td>
<td>1.154*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. No. of hours spent with group members per week&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.019</td>
<td>0.042</td>
<td>0.200*</td>
<td>0.593**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. No. of years spent working at the current job&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.226*</td>
<td>0.103</td>
<td>-0.076</td>
<td>-0.025</td>
<td>0.128</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. No. of years spent working with current work group&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.127</td>
<td>-0.030</td>
<td>0.063</td>
<td>-0.003</td>
<td>0.054</td>
<td>0.419**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. No. of years spent working with current supervisor&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.069</td>
<td>0.044</td>
<td>0.048</td>
<td>-0.043</td>
<td>0.048</td>
<td>0.222**</td>
<td>0.590**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. No. of years spent working with the organization&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.343**</td>
<td>-0.054</td>
<td>-0.055</td>
<td>-0.093</td>
<td>0.083</td>
<td>0.615**</td>
<td>0.438**</td>
<td>0.397**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. No. of years spent working in the current department&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.252**</td>
<td>-0.044</td>
<td>-0.049</td>
<td>-0.027</td>
<td>0.133</td>
<td>0.463**</td>
<td>0.502**</td>
<td>0.527**</td>
<td>0.718**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Abusive Supervision</td>
<td>-0.097</td>
<td>0.172*</td>
<td>0.071</td>
<td>0.095</td>
<td>0.030</td>
<td>0.014</td>
<td>0.124</td>
<td>0.052</td>
<td>-0.102</td>
<td>-0.047</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Depression</td>
<td>-0.038</td>
<td>0.130</td>
<td>-0.048</td>
<td>-0.055</td>
<td>0.050</td>
<td>0.077</td>
<td>0.002</td>
<td>-0.001</td>
<td>-0.019</td>
<td>-0.029</td>
<td>0.356**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Emotional Exhaustion</td>
<td>0.106</td>
<td>0.171*</td>
<td>-0.020</td>
<td>-0.043</td>
<td>0.113</td>
<td>0.099</td>
<td>-0.045</td>
<td>-0.053</td>
<td>0.045</td>
<td>-0.010</td>
<td>0.239**</td>
<td>0.591**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Job Satisfaction</td>
<td>0.186*</td>
<td>-0.136</td>
<td>0.066</td>
<td>0.084</td>
<td>0.038</td>
<td>0.066</td>
<td>-0.077</td>
<td>-0.091</td>
<td>0.107</td>
<td>0.013</td>
<td>-0.100</td>
<td>0.075</td>
<td>0.094</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Physical Health</td>
<td>0.142</td>
<td>-0.001</td>
<td>-0.036</td>
<td>-0.131</td>
<td>0.009</td>
<td>0.130</td>
<td>0.001</td>
<td>0.037</td>
<td>0.181*</td>
<td>0.173*</td>
<td>0.234**</td>
<td>0.518**</td>
<td>0.431**</td>
<td>0.049</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Negative Affect</td>
<td>-0.007</td>
<td>0.014</td>
<td>0.031</td>
<td>0.003</td>
<td>0.105</td>
<td>0.097</td>
<td>0.016</td>
<td>0.051</td>
<td>0.045</td>
<td>-0.026</td>
<td>0.239**</td>
<td>0.641**</td>
<td>0.479**</td>
<td>-0.020</td>
<td>0.513**</td>
<td></td>
</tr>
<tr>
<td>17. Group Level Abusive Supervision</td>
<td>0.091</td>
<td>-0.025</td>
<td>-0.006</td>
<td>-0.047</td>
<td>-0.078</td>
<td>-0.077</td>
<td>-0.015</td>
<td>0.001</td>
<td>0.050</td>
<td>-0.086</td>
<td>0.027</td>
<td>-0.019</td>
<td>0.061</td>
<td>0.049</td>
<td>-0.075</td>
<td>-0.053</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)
a Categorical Variable
Table 3. HLM Results for the Full Model (Control variables, level 1, level 2 and Interaction Term)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Depression</th>
<th>Emotional Exhaustion</th>
<th>Job Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>-.04</td>
<td>.17</td>
<td>.16</td>
</tr>
<tr>
<td>Gender</td>
<td>.04</td>
<td>.40</td>
<td>-3.88</td>
</tr>
<tr>
<td>Hrs. spent with Supervisor</td>
<td>-.01</td>
<td>-.03</td>
<td>1.74</td>
</tr>
<tr>
<td>Hrs. spent on grp. project</td>
<td>-.04</td>
<td>.01</td>
<td>1.04</td>
</tr>
<tr>
<td>Hrs. spent with grp. members</td>
<td>.02</td>
<td>.04</td>
<td>-.78</td>
</tr>
<tr>
<td>Yrs. spent at current job</td>
<td>.00</td>
<td>-.02</td>
<td>.73</td>
</tr>
<tr>
<td>Yrs. spent with current work grp.</td>
<td>-.02</td>
<td>-.03</td>
<td>-.37</td>
</tr>
<tr>
<td>Yrs. spent with current supervisor</td>
<td>-.01</td>
<td>-.11</td>
<td>-.92</td>
</tr>
<tr>
<td>Yrs. spent with the organization</td>
<td>.02</td>
<td>.07</td>
<td>1.58</td>
</tr>
<tr>
<td>Yrs. spent with current department</td>
<td>-.02</td>
<td>-.06</td>
<td>-.78</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>.38</td>
<td>.60</td>
<td>-.63</td>
</tr>
<tr>
<td>2. Individual-level perception of Abusive Supervision</td>
<td>.10</td>
<td>-.18</td>
<td>1.64</td>
</tr>
<tr>
<td>3. Group-level perception of Abusive Supervision</td>
<td>-.06</td>
<td>-.38</td>
<td>2.28</td>
</tr>
<tr>
<td>4. Interaction Term (Individual-level perception x Group-level perception)</td>
<td>.04</td>
<td>.21</td>
<td>-1.03</td>
</tr>
</tbody>
</table>
### Table 4. HLM Analyses with Control and Level 2 variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Physical Symptoms</th>
<th>Depression</th>
<th>Emotional Exhaustion</th>
<th>Job Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>.21</td>
<td>-.04</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td>Gender</td>
<td>.52</td>
<td>.06</td>
<td>-.3.75</td>
<td>-.3.75</td>
</tr>
<tr>
<td>Hrs. spent with Supervisor</td>
<td>-.01</td>
<td>.00</td>
<td>1.61</td>
<td>1.61</td>
</tr>
<tr>
<td>Hrs. spent on grp. project</td>
<td>.00</td>
<td>-.03</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Hrs. spent with grp. members</td>
<td>.06</td>
<td>.02</td>
<td>-.72</td>
<td>-.72</td>
</tr>
<tr>
<td>Yrs. spent at current job</td>
<td>-.03</td>
<td>.00</td>
<td>.67</td>
<td>.67</td>
</tr>
<tr>
<td>Yrs. spent with current work grp.</td>
<td>-.02</td>
<td>-.01</td>
<td>-.31</td>
<td>-.32</td>
</tr>
<tr>
<td>Yrs. spent with current supervisor</td>
<td>-.17</td>
<td>.00</td>
<td>-.90</td>
<td>-.90</td>
</tr>
<tr>
<td>Yrs. spent with the organization</td>
<td>.10</td>
<td>.01</td>
<td>1.54</td>
<td>1.54</td>
</tr>
<tr>
<td>Yrs. spent with current department</td>
<td>-.05</td>
<td>-.02</td>
<td>-.85</td>
<td>-.85</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>.64</td>
<td>.41</td>
<td>-.68</td>
<td>-.68</td>
</tr>
<tr>
<td>2. Group-level perception of Abusive Supervision</td>
<td>-.03</td>
<td>.00</td>
<td>.52</td>
<td>.52</td>
</tr>
</tbody>
</table>
Table 5. Main Effect Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Physical Health Symptoms</th>
<th>Depression</th>
<th>Emotional Exhaustion</th>
<th>Job Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>Step 1</td>
<td>Step 2</td>
<td>ΔR²</td>
</tr>
<tr>
<td>3. Age</td>
<td>.09</td>
<td>.08</td>
<td>.322</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>.03</td>
<td>-.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hrs. spent with Supervisor</td>
<td>-.03</td>
<td>-.03</td>
<td></td>
<td>.322</td>
</tr>
<tr>
<td>Hrs. spent on grp. project</td>
<td>-.12</td>
<td>-.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hrs. spent with grp. members</td>
<td>.01</td>
<td>.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yrs. spent at current job</td>
<td>-.01</td>
<td>-.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yrs. spent with current work grp.</td>
<td>-.14</td>
<td>-.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yrs. spent with current supervisor</td>
<td>.03</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yrs. spent with the organization</td>
<td>.06</td>
<td>.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yrs. spent with current department</td>
<td>.14</td>
<td>.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Affect</td>
<td>.51</td>
<td>.44**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Abusive Supervision</td>
<td>.22**</td>
<td>.039</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model Summary

- Adjusted $R^2 = .310$
- Adjusted $R^2 = .457$
- Adjusted $R^2 = .246$
- Adjusted $R^2 = .015$

*p<.05  **p<.01

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>β</td>
<td>β</td>
<td>β</td>
<td></td>
</tr>
<tr>
<td>1. Age</td>
<td>.09</td>
<td>.09</td>
<td>.08</td>
</tr>
<tr>
<td>Gender</td>
<td>.03</td>
<td>-.01</td>
<td>-.02</td>
</tr>
<tr>
<td>Hrs. spent with Supervisor</td>
<td>-.03</td>
<td>-.03</td>
<td>-.00</td>
</tr>
<tr>
<td>Hrs. spent on grp. project</td>
<td>-.12</td>
<td>-.14</td>
<td>-.13</td>
</tr>
<tr>
<td>Hrs. spent with grp. members</td>
<td>.01</td>
<td>.02</td>
<td>-.01</td>
</tr>
<tr>
<td>Yrs. spent at current job</td>
<td>-.01</td>
<td>-.02</td>
<td>-.00</td>
</tr>
<tr>
<td>Yrs. spent with current work grp.</td>
<td>-.14</td>
<td>-.18</td>
<td>-.19</td>
</tr>
<tr>
<td>Yrs. spent with current supervisor</td>
<td>.03</td>
<td>.03</td>
<td>.03</td>
</tr>
<tr>
<td>Yrs. spent with the organization</td>
<td>.06</td>
<td>.12</td>
<td>.12</td>
</tr>
<tr>
<td>Yrs. spent with current department.</td>
<td>.14</td>
<td>.13</td>
<td>.14</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>.51</td>
<td>.44</td>
<td>.43</td>
</tr>
<tr>
<td>2. Individual Perceptions of Abusive Supervision</td>
<td>.22</td>
<td>.60**</td>
<td>.044</td>
</tr>
<tr>
<td>Group-Level Perceptions of Abusive Supervision</td>
<td>-.07</td>
<td>1.13</td>
<td></td>
</tr>
<tr>
<td>3. Interaction between Individual and Group-Level Perceptions of Abusive Supervision</td>
<td>-1.28*</td>
<td>.016</td>
<td></td>
</tr>
</tbody>
</table>

Model Summary: Adjusted R² = .382

* p<.05 **p<.01
APPENDIX A
SCALES USED IN THE STUDY

Abusive Supervision Scale


Please think about your immediate supervisor/boss and respond to the following set of items on the following scale:

My boss.....

1. Ridicules me
2. Tells me my thoughts and feelings are stupid
3. Gives me the silent treatment
4. Puts me down in front of others
5. Invades my privacy
6. Reminds me of my past mistakes and failures
7. Doesn’t give me credit for jobs requiring a lot of effort
8. Blames me to save himself/herself embarrassment
9. Breaks promises he/she makes
10. Expresses anger at me when he/she is mad for another reason
11. Makes negative comments about me to others
12. Is rude to me
13. Does not allow me to interact with my coworkers
14. Tells me I’m incompetent
15. Lies to me

Physical Symptoms Inventory


During the past 30 days did you have any of the following symptoms? If you did have the symptom, did you see a doctor about it?

<table>
<thead>
<tr>
<th>During the PAST 30 DAYS did you have?</th>
<th>NO I DIDN’T</th>
<th>YES I DID BUT DID NOT SEE DOCTOR</th>
<th>YES I DID AND I SAW A DOCTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. An upset stomach or nausea</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. A backache</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Psychological Health Symptoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>3</td>
<td>Trouble sleeping</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>A skin rash</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Shortness of breath</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Chest pain</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Headache</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Fever</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>Acid indigestion or heartburn</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>Eye strain</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>Heart pounding when not exercising</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>An infection</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>Loss of appetite</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>Dizziness</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>15</td>
<td>Tiredness or fatigue</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Zung Self-Rating Depression Scale**


Please read each statement and decide how much of the time the statement describes how you have been feeling during the past several days.

1. I feel down-hearted and blue
2. Morning is when I feel the best
3. I have crying spells or feel like it
4. I have trouble sleeping at night
5. I eat as much as I used to
6. I notice that I am losing weight
7. My mind is as clear as it used to be.
8. I find it easy to do the things I used to
9. I am restless and can’t keep still
10. I feel hopeful about the future
11. I am more irritable than usual
12. I find it easy to make decisions
13. I feel that I am useful and needed
14. My life is pretty full
15. I feel that others would be better off if I were dead
16. I still enjoy the things I used to do.

**Emotional Exhaustion**


Below are statements with which you may agree or disagree. Thinking about the past month, please indicate the degree of your agreement by selecting the number that corresponds with the statement.

1. There are days when I feel tired before I arrive at work
2. After work, I tend to need more time than in the past in order to relax and feel better
3. I can tolerate the pressure of my work very well
4. During my work, I often feel emotionally drained
5. After working, I have enough energy for my leisure activities
6. After my work, I usually feel worn out and weary
7. Usually, I can manage the amount of my work well
8. When I work, I usually feel energized

*Exhaustion subscale only*

**Job Satisfaction**

*Job in General Scale, 2009 Revision*

Think of your job in general. All in all what is it like most of the time? In the blank beside each word or phrase below, write
Y for “Yes” if it describes your job
N for “No” if it does not describe it
? for “?” if you cannot decide

__ Pleasant
__ Bad
__ Great
__ Waste of time
__ Good
__ Undesirable
__ Worthwhile
__ Worse than most
__ Acceptable
__ Superior
__ Better than most
__ Disagreeable
__ Makes me content
__ Inadequate
__ Excellent
__ Rotten
__ Enjoyable
__ Poor

**Negative Affect**


Read each item and indicate to what extent in the past 30 days you have felt this way.

Distressed
Irritable
Ashamed
Upset
Nervous
Guilty
Scared
Hostile
Jittery
Afraid

**Demographic and Control Variables**

Age: ______________

Gender:
Male
Female

Group characteristics:

Number of members in your current work group: __________
Number of hours spent with supervisor during a week: ________
Number of hours spent on group projects: _________________
Number of hours spent working with group members: __________
Job Tenure:

Number of years at the current job ___________________________
Number of years with current work group _______________________
Number of years with current supervisor ________________________
Number of years with the current organization ___________________
Number of years with current department _________________________
APPENDIX B
HSRB APPROVED CONSENT FORM

WORKPLACE SUPERVISION AND LEADERSHIP SURVEY

Dear Participant,

You are invited to participate in a research project looking at supervision and leadership in the workplace. The purpose and potential benefit of this study is to help organizations understand the impact of supervision on work groups and teams. We are a research team from Bowling Green State University (BGSU) and we would like to ask for your help with this important study.

Eligibility and Procedures for Participation:
You must be over 18 years old and currently employed full-time to participate. You should have been working with your current organization for at least 6 months. One of the major purposes of this study is to understand supervision and leadership in the Indian context. Therefore it is important that you are an Indian or identify yourself as an Indian citizen in order to be eligible to participate. The survey will take about 15-20 minutes to complete. Please know that we cannot use your survey responses unless you respond to all questions, so if you choose to participate please answer all questions honestly.

Monetary Incentive for Participation & Confidentiality:
In return for your participation, you will receive a Rs. 100 gift card to Café Coffee Day. At the end of the survey, you will be asked to provide us with information about where you would like to receive your gift card. Your personal information provided at the end of the survey will not be tied to your responses. We will protect the confidentiality of your responses. Please allow at least two weeks for us to process your gift card. Once your gift card has been processed, your personal information will be destroyed.

To protect the confidentiality of your responses, we will only show combined results in our reports. No one will be able to access individual responses except our research team. All data received as part of the survey will be stored in a password-protected file on a computer in a locked office. Additionally we request that you clear your internet browser and page history after completing the survey.

Voluntary participation and ability to withdraw from the study:
Filling out this survey is entirely voluntary. Please answer the questions as best as you can, but you are free to withdraw at any time. Your decision to participate or not will NOT affect your relationship with your coworkers, your supervisor, your employer, or any rights to which you are entitled. Submission of the survey will indicate your consent to participate. Also, please note that we will only be able to provide gift cards to those who finish the entire survey.

Anticipated risks and benefits of participation:
The risks to you for participating in this study are minimal and no more than what you would encounter in day-to-day life.
Some employers may use tracking software. So, please be aware of this in case you chose to take the survey from your office computer. Also, e-mail communications are not 100% secure. So you may want to take the survey from a personal computer. Be sure to delete your browser history and cache after participating in the study.

While there are no direct benefits or risks to you for participation, your participation can help us further understand workplace supervision and leadership and its impact on employee well-being. We hope that our research will help organizations provide better resources to their employees and make the work environment healthier.

SUBMISSION OF THE SURVEY WILL INDICATE YOUR CONSENT TO PARTICIPATE.

Thank you very much for your consideration and help,

Dr. Steve M. Jex and Purnima Gopalkrishnan.

**Contact information:** If you have any questions about this research you may contact Purnima Gopalkrishnan at 001.419.372.4306 (purnimg@bgsu.edu) or professor, Steve M. Jex at 001.419.372.2132 (sjex@bgnet.bgsu.edu) in the Department of Psychology at BGSU. You may also contact the Chair, Human Subjects Review Board, BGSU, 001.419.372.7716 (hsrb@bgnet.bgsu.edu), with any questions or concerns you may have about your rights as a research participant.
APPENDIX C
SCRIPTS USED FOR SOLICITING NOMINATIONS AND PARTICIPATION

Invitation E-mail

Dear Employee,

Bowling Green State University (BGSU) and the Infosys Leadership Institute (ILI) are conducting an exciting new study to look at supervision and leadership in the workplace and its impact on the work group and team.

Infosys has grown rapidly and with our growth, other aspects to our company may have also changed. In order to understand how supervision in the workplace influences a work group/team’s well-being, we need to survey different members of the same team. Additionally, we are trying to understand supervision and leadership behaviours in the Indian context since majority of the research in this area has been conducted using Western organizations.

We therefore request you to nominate at least 4 other members from your current project group/team who are of Indian origin. These members should be:

- People working in the same organization as you
- Your peers (i.e. NOT your Manager/Boss or your Subordinates/Direct Reports)
- Should be reporting to the same Manager/Boss as you (i.e. NOT your friends or colleagues in other project teams or departments).
- Indian

Once we have this list, we will contact you again to ask you and the people you nominated to participate in our study. The final survey will take no more than 15-20 minutes to complete.

What’s in it for you?

- Learning more about these issues will help us provide you and other employees with better resources and a healthier workplace.
- We will share a summary report at the end of the study detailing our findings and recommendations for ILI and Infosys Ltd.
- We will be offering Rs100 gift cards to Café Coffee Day to every team member of the first 50 project teams or groups that complete the survey!!

Please take a few minutes to nominate your project team/group members and consider participating in our study. You will be greatly aiding us in our research and we value your contribution.

Please note that Infosys does not require you to participate in our research project and there are no consequences whatsoever for non-participation. No one other than the primary investigator will know who does or does not participate.
Thank you,
ILI and BGSU.
If you need to contact the researchers for more information, please contact:
Purnima Gopalkrishnan (+91 991 662 6428 or Purnima_g01@infosys.com)
Dr. Steve Jex (001 419 372 2132 or sjex@bgsu.edu)
Participation E-mail

Dear Employee,

Bowling Green State University (BGSU) and the Infosys Leadership Institute (ILI) are conducting an exciting new study to look at supervision and leadership in the workplace and its impact on the work group and team.

Infosys has grown rapidly and with our growth, other aspects to our company may have also changed. In order to understand how supervision in the workplace influences a work group/team’s well-being, we need to survey different members of the same team. Additionally, we are trying to understand supervision and leadership behaviors in the Indian context.

**No information you provide about your Supervisor/Manager/Boss will be shared with anyone at Infosys.** Any data collected, will be analyzed and presented in aggregate form only and all personal or identifying information will be deleted.

Your help will greatly aid us in conducting our research!! The survey will take no more than 20-25 minutes and will ask you to respond to a number of statements pertaining to your health, emotions, as well as your interactions with your supervisors and co-workers.

What can you gain from our study?

- Learning more about these issues will help us provide you and other Infoscions with better resources and a healthier workplace.
- We will share a summary report at the end of the study detailing our findings and what recommendations for ILI and Infosys Ltd.
- We will be offering **Rs.100 gift cards to Café Coffee Day** to **every team member of the first 50 project teams or groups** that complete the survey!!

At the end of the survey, you will be asked to give us some information about where you would like to receive this gift certificate. Please note that we will **NOT** associate any identifying information that you provide with your responses to the survey questions.

Please note that Infosys does not require you to participate in our research project, and there are no consequences whatsoever for non-participation. **No one other than the primary investigator, will know who does or does not participate.**

Thank you,
ILI and BGSU.
If you have any questions or concerns about the study, please contact
Purnima Gopalkrishnan (+91 991 662 6428 or Purnima_g01@infosys.com)
Dr. Steve Jex (001 419 372 2132 or sjex@bgsu.edu)
**Phone Reminder Script**

For Peers:

Hi. This is [Name] calling from [Organization Name]. You recently received a mail from us about an ongoing study on supervision and leadership. Your help would greatly help us in understanding leadership. The survey will take no more than 15 to 20 minutes.

If you and your peers are one of the first 50 teams to complete the assessment, you will be receiving a CCD gift card worth Rs. 100 for each team member*.

Would you be willing to participate in the study? _________ (wait for their response). (If they answered yes), When would you be available to take the assessment? ________ (again, wait for the response). Can I block your calendar? (If they answer yes, then block their calendar for 30 mins).

Thank you and please feel free to contact us if you have any questions.

For Self:

Hi. This is [Name] calling from [Organization Name]. You recently received a mail from us about an ongoing study on supervision and leadership. Your help would greatly help us in understanding leadership. The survey will take no more than 15 to 20 minutes.

The first 50 teams to complete the assessment will receive CCD gift cards worth Rs. 100 for every team member!

Would you be please fill out the survey? _________ (wait for their response). (If they answered yes), When would you be able to fill it out? ________ (again, wait for the response). Can I block your calendar? (If they answer yes, then block their calendar for 30 mins).

Thank you and please encourage the peers whom you have nominated to also fill out the survey.

Please feel free to contact us if you have any questions.

If they ask about the Gift Cards:

* If they ask when they will get this card or how they will get this card:

- Tell them that we will be processing this information 2 weeks after all the data has been collected (i.e. 2 weeks after Sep 30th). Once we have information on which were the first 50 teams, we will be contacting individual team members and asking them where they would like to receive their gift card.