Workplace Bullying: Impact on Depression and Anxiety and the Link Between Victim and Perpetrator Status

by

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Abstract

This study on workplace bullying investigated the role power plays in becoming a victim and/or a bully, how these identities are related, and how being a bully and/or a victim affects mental health in terms of anxiety and depression. Participants (n = 377) were administered a survey with questions concerning objective power, perceived power, bully status, victim status, social desirability, anxiety, and depression. Bully status and victim status overlapped at a rate greater than chance, which suggests bully-victims are fairly common. Perceived power was a much better predictor than objective power in determining bully status and victim status. Depression and anxiety were highest for bully-victims, then victims, then bullies, then neither bullies nor victims. These findings challenge common assumptions about workplace bullying and help close the gap in the literature between understanding bullying in school-age children and in the workplace.

Keywords: workplace bullying, victim status, bully status, depression, anxiety, power, mental health, bully-victim, social desirability, punish
Workplace Bullying: Impact on Depression and Anxiety and the Link Between Victim and Perpetrator Status

Introduction

1.1 Background

Workplace bullying occurs when an employee or employees face repeated mistreatment from supervisors or colleagues over an extended period of time, with the employee(s) struggling to protect themselves from these actions (Nielsen, 2022). Nearly 40% of U.S. workers experience workplace bullying during their careers (Namie, 2007). Workplace bullying has been shown to lower self-confidence and increase psychological complaints such as symptoms of depression and anxiety, as well as irritability, burnout, fatigue, stress, aggression, and substance use (Einarsen et al., 2020; Ekici & Beder, 2014; Vartia, 2001). Those experiencing bullying may develop symptoms that align with symptoms of PTSD. Workplace bullying has direct organizational consequences as it leads to employees taking more sick days, increased turnover, and has resulted in earlier retirement, decreased productivity, and legal actions. The negative effects of workplace bullying may also affect bystanders, causing organization-wide problems. Thus, organizations have a high interest in interventions that help prevent, identify, and reduce workplace bullying.

Theoretically, this process of workplace bullying can be deconstructed into two steps: “exposure” and “victimization.” In the "exposure" stage, an employee goes through a period where they experience regular mistreatment and aggression from their coworkers or bosses (Hoprekstad, 2021). The frequency and severity of this mistreatment can vary widely. In the
“victimization stage,” the employee who experiences this mistreatment feels like they cannot
defend themselves against this mistreatment because they have less power than those who are
bullying them. This conceptualization of how victims are created suggests that perceived power
is essential to defining oneself as a victim. Specifically, objective power is important to examine
to determine if bullies “create” power or if power has been assigned to them as part of their
organizational role. A measure of objective power also allows for an examination of the extent to
which it relates to perceived power and its role in the experience of being bullied and of bullying.

1.2 Relationship Between Power and Bully and Victim Status

Many definitions of workplace bullying specify that there must be an imbalance of
perceived power between the victim and bully (Chirilă & Constantin, 2013). According to Salin
(2003), perceived power imbalances may help facilitate workplace bullying, making it more
likely to occur. For example, organizational power and payment satisfaction have been shown to
be negatively associated with being the victim of workplace bullying (Ariza-Montes et al., 2024).
Correlating objective power and perceived power provides an estimate of the accuracy of worker
perceptions of their own power. While there is little research on subjective power in perpetrators
compared to victims, in the present study, bullies are expected to report lower levels of
subjective power compared to objective (e.g., position, salary) power. Specifically, they are
expected to feel less powerful than they actually are. This is based on the idea that one purpose
of bullying is to satisfy a need for power (i.e., bullies do not feel powerful and are trying to
become powerful through bullying behavior) (Sung et al., 2018).

Bullying can happen to anyone, regardless of the difference in objective power between
them and its direction. The terms downward, horizontal, and upward bullying describe the
directionality of bullying from an organizational power perspective, with downward being a
powerful employee bullying a less powerful employee, horizontal being one employee bullying one on a similar level of power, and upward being a less powerful employee bullying a more powerful one. It is an assumption that downward bullying is the most common, with horizontal bullying being the second most common and upward bullying being the least common. The nature of bullying can differ; for example, upward bullying is done more covertly, likely to avoid punishment, and downward bullying can be done using a punishment system. Horizontal bullying indicates that bullying can happen in the absence of power dynamics, as both the bully and victim have equal power.

Understanding the relationship between objective and subjective power is essential to determining the accuracy of worker perceptions and to what extent being a victim or perpetrator of bullying is due to each type of power. Therefore, this study will test the following hypotheses.

H1: Victimization is predicted by objective power. Specifically, as objective power decreases, reports of victimization will increase.

H2: Victimization is predicted by subjective power. Specifically, as subjective power decreases, reports of victimization will increase.

H3: Perpetration is predicted by objective power. Specifically, as objective power increases, reports of bullying perpetration will increase.

H4: Perpetration is predicted by subjective power. Specifically, as subjective power decreases, reports of perpetration will increase.
1.3 Relationship Between Bullying and Victim Status

There is a reciprocal relationship between perpetuating workplace bullying and reporting victimization (Shen et al., 2020). That is, there is a dual status called bully-victim that reflects being both a bully and a victim (Dulmus et al., 2006). Being a victim itself is a risk factor for becoming a bully, and being a bully is a risk factor for becoming a victim (Linton & Power, 2013). This is important because it describes a pattern of association between the perpetrator and victim roles, adding an additional layer of complexity to bullying research.

Bullies and victims have similar personality traits, with both bullies and victims showing a positive association with measures of Machiavellianism, narcissism, psychoticism, and aggression (Linton & Power, 2013). These personality traits may be risk factors for becoming a victim or perpetrator and may play a role in the comorbidity of these statuses.

A theoretical explanation as to how the dual status of bully-victims develops is the Social Information Processing (SIP) model. A study in school-age children by Sung et al. (2018) posed the SIP model as one explanation for how bully-victims come to be. Victims realize they are being victimized and may engage in behaviors to alleviate bullying, which may include imitating bullies and attacking more vulnerable targets. Bully-victims could also be caused by aggression reciprocity. A bully may be aggressive towards another and then have that aggression reciprocated and therefore become a victim. Conversely, a victim could face aggression and respond in kind, engaging in bullying behavior. In the context of these theories, aggression towards others is conceptualized as an ineffective coping mechanism used by bullies.

Workplace bullying is more than separate interactions between two people, and each instance of bullying collectively contributes to the overall workplace culture or climate. That is,
victims, bullies, and bully-victims may develop in organizational cultures or climates that emphasize or promote aggression. Bullying in a workplace normalizes bullying in that workplace, creating tolerance for bullying behaviors (Stalcup, 2013). Each time a bullying behavior goes unpunished, socially or by the organization, it can communicate that this is acceptable behavior and increase the likelihood of everyone in the workplace being a recipient of bullying behaviors, including the bullies. In short, bullying may be viewed as a system of reciprocated aggression on both an individual and organizational level. The following hypothesis posits a reciprocal relationship between perpetrating workplace bullying and being the recipient of it.

H5: A reciprocal relationship is expected between reports of victimization and reports of perpetration.

1.4 Anxiety and Depression Link to Workplace Bullying

Anxiety and depression were measured in this study, as those who are the victims of workplace bullying are more likely to suffer from increased levels of anxiety and depression (Quine, 1999; Einarsen & Nielsen, 2015). Anxiety and depression may be mediators for negative psychological and physical symptoms (Lo Presti et al., 2019). The development of negative symptoms resulting from workplace bullying is particularly of interest because of the possibility that they develop into full-blown psychopathological and/or medical disorders. Having mental health problems is a risk factor for experiencing workplace bullying, suggesting a bidirectional relationship (Feijó et al., 2019). There is little research on workplace bullies and bully-victims and how they are affected in terms of mental health. However, bullying is an interpersonal
exchange of aggression, and aggression is associated with psychopathological symptoms (Śmiarowska et al., 2023). Therefore, by engaging in aggression, this suggests that bullies and bully-victims also suffer from mental health problems, with bully-victims suffering the most by both being high in aggression and the victim of aggressive acts. Therefore, the following hypotheses will be tested to understand how perpetrating and being the recipient of bullying behaviors affects levels of anxiety and depression.

H6: Those who report higher levels of victimization also report higher levels of anxiety and depression.

H7: Those who report higher levels of perpetration also report higher levels of anxiety and depression.

1.5 Demographic Status and Prevalence

A greater understanding of how power in the workplace is related to demographic variables may increase our understanding of the factors that contribute to bullying and who is most vulnerable to it. Recent data indicate that thirty percent of U.S. adults had direct experience with workplace bullying (13% reported current workplace bullying; 17% experienced bullying in the past, Workplace Bullying Institute (WBI), 2021). Although bullying is undesirable in the workplace, it is unlawful only when victimization is associated with protected employee characteristics (e.g., race, ethnicity, gender, sexual orientation). The prevalence ratio of bullying to illegal harassment and discrimination is 4:1 (WBI, 2007). That is, in most cases, bullying is not linked with unlawful working conditions. Research indicates that some organizations lack anti-bullying policies, and of those with such
policies, they vary regarding enforcement (Cowan, 2011). Company policies and HR are often seen as safeguards against workplace bullying, and when these systems are flawed, bullying may occur unchecked. Demographic data were collected to describe the sample and determine its representativeness. There is an array of demographics that may factor into the experience of workplace bullying that was collected in this study. Age, gender, race, and socioeconomic status likely have a link to workplace bullying. Gender differences in bullying status have been found with more workplace bullies being male than female (67% and 33% respectively; WBI, 2021). Workplace bullies also tend to bully people of the same gender, with male bullies having 58% male targets and female bullies having 65% female targets. However, there is mixed evidence related to gender differences among workplace bullying victims, with some studies reporting no difference in the prevalence of bullying victims among men and women (Einarsen & Skogstad, 1996; Ortega et al., 2009; Vartia & Hyyti, 2002) and other studies reporting that women are bullied more than men (Salin & Hoel, 2013). There are no significant age differences in who is a victim of workplace bullying (Ortega et al., 2009). There are significant racial differences in workplace bullying, with Hispanics, Asians, and African Americans reporting higher levels of workplace bullying compared to their white coworkers (Attell et al., 2017; Fox & Stallworth, 2005). In terms of socioeconomic differences, higher-income employees were far more likely to report experiencing workplace bullying (Chan et al., 2019; Lewis & Gunn, 2007).

There are also factors unique to the workplace that likely impact workplace bullying, such as the position someone has in their workplace, the compensation they receive for their position and how long they have stayed in that position. The amount of time someone has worked at a company is important because new hires may be subject to probationary periods and associated evaluations that give them little power in the workplace (Hroub et al., 2022).
Temporary employees may be targets of workplace bullying since they can be perceived as a potential disturbance to the permanent working force by interfering with the social cohesion of the workplace (Cheng & Huang, 2010; Notelaers et al., 2011). Additionally, they are much easier to fire or lay off due to the lack of workplace protections these workers receive, which makes this group especially vulnerable as they have little power in the workplace to combat bullying. They are also more likely to leave on their own accord (Glambek et al., 2014). Those bullied often do not have a management role (i.e., 52% of those bullied are not management, 40% are management, 6% are owners, and 2% are contractors, WBI, 2021).

Education and professional statuses unique to education may also play a role in how bullying is experienced. There is mixed evidence on how education relates to someone’s risk of experiencing workplace bullying, which has either shown no relationship (Feijó et al., 2019) or increased experiences of bullying for those of lower educational status (Yildirim, 2009). Tenure creates unique workplace bullying problems for both the tenured and surrounding professionals. Tenured professors have less mobility in their workplace because changing jobs to avoid experiencing workplace bullying would cause them to lose their tenure (Lester, 2013). In addition, tenure results in longer workplace relationships. Bullying has a higher chance of being a product of long-term relationships, as these relationships have given time to form and conflict to arise within them. Additionally, tenure shields professionals from punishment for engaging in harmful practices such as bullying. This allows those with tenure to bully with more impunity than those without this status. Workplace bullying is considered an unfair labor practice, which makes union membership also a status of interest. Being part of a union likely shields workers from workplace bullying and other harmful work-related practices. In the United States during the 2022 fiscal year, there were a total of 17,988 charges of unfair labor practices filed, with a
portion of these charges being due to workplace bullying, and in this same period, 2,510 union representation petitions were filed (NLRB, 2023). The union membership rate, the percentage of wage and salary workers who were members of unions, was 10.1 percent in 2022 (U.S. Bureau of Labor Statistics, 2023). These statistics establish that unfair labor practices, such as workplace bullying, are a current problem.

Immigrant status has been shown to be linked to experiencing increased bullying in the workplace (Bergbom, B., Vartia-Väänänen, 2015; Bergbom, B., & Vartia, M., 2021; Høgh et al., 2020; Mendonca & D’Cruz, 2021). Immigrants are also particularly susceptible to a specific type of workplace bullying, which is overworking (Avery et al., 2010). Immigrants that lack permanent residency are directly disempowered by work visas, in which their residency is contingent on their job.

Taken together, the literature suggests that those with high objective power are more likely to be bullies, and those with low objective power are more likely to be victims. Additionally, there are many demographic characteristics that may increase vulnerability to workplace bullying, such as those who lack worker’s rights protections.
Chapter 2: Methods

2.1 Measures

2.1.1 Self-Report Victimization

Workplace bullying was measured using a five-dimensional, 20-item scale (Quine, 1999). This particular bullying scale was used because it has five dimensions of interest regarding bullying: threat to professional status (being given meaningless tasks; facing harmful rumors, intimidation, and frequent criticism); threat to personal standing (receiving demeaning remarks or verbal abuse, public humiliation, and verbal and physical threats); isolation (being ignored or cut off from others); overwork (having to pursue unrealistic targets or facing excessive work monitoring); and destabilization (having information withheld) (Dick & Rayner, 2013). This dimensional approach covers a wide variety of workplace bullying behaviors. This is a Likert scale with responses ranging from 0 to 4 for each item, with a maximum score of 80.

2.1.2 Self-Report Perpetration

For the purpose of this study, the Quine (1999) workplace bullying scale was adapted to measure bully status. In this modified scale, the content was changed to ask about the same behaviors as the victim scale but about oneself engaging in these bullying behaviors towards another employee rather than being a victim of them. The answers on each item range from 0 to 4, for a maximum score of 80 to mirror the bullying scale’s scoring system. This self-report
measure format may have issues related to defensiveness and truthfulness because it is asking about an individual’s own negative behaviors, and instructions asking participants to be as truthful as possible answering this scale was included as a result. These scales for bully status and victim status will be used to assess the reciprocal relationship between perpetuating workplace bullying and reporting experiencing bullying.

2.1.3 Self-Report Power

Perceived power was measured using the Semantic Differential Power Perception Survey (SDPP) (Bartos et al., 2008). This scale has 20 items and has respondents choose a dot on a spectrum of dots between a pair of words. The words in each word pair have opposite meanings, and the closer the chosen dot is to one of the words in the pair, the more it is to reflect the participant belief that the word best fills in the blank for the given survey question. The SDPP’s answer choices were modified from a spectrum of 11 dots to 5 dots to be consistent with the response formats of the other survey measures and to make it easier to visualize for participants.

2.1.4 Objective Power

Each participant was administered items pertaining to structural and compensation power to reflect objective power. These variables reflecting objective power were constructed by the study team and can be seen in Table 1 below. Compensation is used to measure power, as those with higher compensation tend to have higher power than those with lower compensation, with financial security being a form of power (Chan et al., 2019; Feijó et al., 2019). The aspects of compensation pertinent in this study are the method of compensation, the dollar amount of compensation, and employee benefits. The method of compensation was of interest because some compensation practices result in a more secure income (e.g., being paid salary rather than
hourly). Structural power is included as those higher in the organizational hierarchy have more power, making one’s position in an organization an indication of power (WBI, 2021). Structural power can be understood as asymmetric control one person in an organization has over another such as being their supervisor (To et al., 2024). For this reason, supervisor status and asymmetric ways to control others such as firing employees were included in this measure.

Table 1. Objective Power Variables

| Structural Power Variables: Supervisor Status, Ability to Raise or Lower Pay of Employees, Ability to Fire Other Employees, Ability to Hire Other Employees, Ability to Promote or Demote Other Employees, Ability to Punish or Reprimand Other Employees, Time Employed at Current Job, Number of Supervisors Interact with During an Average day at Work, Number of Supervisees Interact with During an Average day at Work |

2.1.5 Anxiety and Depression

BDI and BAI were used to assess the severity of an individual’s depression and anxiety, respectively. BAI is a 21-item scale with answers on each item ranging from 0 to 3, with a maximum score of 63 (Beck et al., 1988). BAI uses the following cutoffs: 0–7 is considered a minimal range, 8–15 is mild, 16–25 is moderate, and 26–63 is severe. This scale has been shown to have a high internal consistency of .91 in both a clinical and nonclinical sample and a good test-retest reliability of .66 in a clinical sample and .65 in a nonclinical sample (Bardhoshi et al., 2016). BDI is a 21-item scale with answers on each item ranging from 0 to 3, with a maximum score of 63 (Beck et al., 1996). BDI uses the following cutoffs: 0–13 is considered a minimal range, 14–19 is mild, 20–28 is moderate, and 29–63 is severe. BDI has a high Cronbach alpha
reliability of .92, indicating internal consistency, and test-retest reliability was shown to be high with \( r = .93 \) after one week (Beck et al., 1996; Steer & Clark, 1997). Its convergent validity with the BAI \( r = .56 \).

**Balanced Inventory of Desirable Responding (BIDR)**

The BIDR was designed to measure social desirability and consists of 40 items, 20 self-deceptive enhancement items and 20 impression management items, with each item having a 7 point rating scale ranging from 1 “Not True” to 7 “Very True.” This scale assesses whether respondents are responding truthfully or are misrepresenting themselves. This makes this a particularly useful measure in accounting for self-reporting bias brought about by attempting to look socially desirable. The inclusion of social desirability as a measure is done to account for its effects on self-report bully status, victim status, anxiety, and depression, with the expectation that it would influence how likely people are to report mental health symptoms and bullying behaviors.

**2.2 Data Collection**

The study questions were administered as Qualtrics surveys and distributed to participants through Prolific, a subject pool for online experiments, due to this platform’s ability to easily collect large quantities of data and high data quality. The participants were informed the survey would take 15 minutes, and this was also the average time the participants took to answer the survey. The data collection lasted from March 25\(^{th}\) to March 27\(^{th}\), 2024. Participants were financially compensated $5 for their completion of the survey. They responded to demographic, vocational, and workplace environment questions and to Beck’s Anxiety Inventory (BAI), Beck’s Depression Inventory II (BDI), a five-dimensional victim scale and its parallel perpetrator scale, and a social desirability scale. The order of the survey was demographic
information followed by objective power measures followed by BAI or BDI (scale order randomized), then the victim or perpetrator scale (scale order randomized), then the remaining scale between BAI or BDI, then the remaining scale between the victim and perpetrator scale, and then BIDR. The order randomization was to help control for order effects with four possible combinations since the scales for measuring bully and victim status were so similar. The number of participant responses were limited by the ability to compensate them for completing the study.

2.3 Screening

The data used in this analysis was collected from 377 survey participants. There were four additional subjects whose data were not used because they failed two or more of the five attention checks in the survey. No other data entries were excluded from this study. The screening criteria were that participants were at least 27 years of age to allow time for a significant amount of work experience and were current residents of the U.S. and had been for at least five years to have adequate knowledge of U.S. cultural norms. Participants were currently employed part-time or full-time in a hybrid or in-person role to provide the opportunity for interpersonal interaction, as bullying is an interpersonal phenomenon.

2.4 Statistical Analysis

Data analyses were conducted using the SPSS (Statistical Product and Service Solutions) software package and SPSS Amos structural equation modeling software, version 29. In SPSS, a bivariate correlation as seen in Table 6 was created to find significant relationships between the following variables of interest, depression, anxiety, victim status, bully status, social desirability, and to see if an SEM model would be necessary to analyze the data. The variables of interest
were highly related, as predicted, thus, an SEM model was constructed to better understand the interrelationship among the variables and to parse out indirect, direct, and total effects.

The structural equation model was constructed by including the major variables based on the hypotheses, which include perceived power, social desirability, bully status, victim status, anxiety, and depression. Using AMOS, these variables were added simultaneously, all significantly contributing to the model. The last variable of interest was objective power, which was theorized to help explain bully and victim status. Objective power was to be added in a separate step because it is a set of many variables relating to objective power broken down into the categories of structural and compensation power. Binary categorical variables of objective power that had any group of n < 30 were excluded from data analysis due to too small a sample size. These excluded objective power variables were the compensation variables paid by tips, completion of the job, and sales commission. Of the objective power variables, it was found that the ability to punish or reprimand employees was the only significant predictor of bully and victim status when each objective power variable was added to the preexisting SEM model one-by-one.

In SPSS, stepwise multiple regressions were conducted to understand how the variables that represented objective power were at predicting victim and bully status and how related they were to perceived power. These multiple regressions were performed by loading all objective power variables into a stepwise multiple regression with victim status, bully status, and perceived power used as the dependent variables in three separate multiple regressions.
Chapter 3: Results

3.1 Primary Results

Participants completed all survey items such that all variables have an n of 377. The correlation coefficients show that of the variables of interest in Table 6 below, many are highly correlated. These high correlations among them supported the use of the structural equation model to better understand how the variables were related to each other.

Figure 1. SEM Model of Power, Bully/Victim Status, Social Desirability, and Anxiety and Depression

![SEM Model Diagram]

Figure 1. This figure depicts the SEM model used in the study to understand the relationship between the variables of interest.

The following hypotheses were tested using SEM total effects and stepwise multiple regression.
H1: Victimization is predicted by objective power. Specifically, as objective power decreases, reports of victimization will increase.

H2: Victimization is predicted by subjective power. Specifically, as subjective power decreases, reports of victimization will increase.

H3: Perpetration is predicted by objective power. Specifically, as objective power increases, reports of bullying perpetration will increase.

H4: Perpetration is predicted by subjective power. Specifically, as subjective power decreases, reports of perpetration will increase.

A stepwise regression with inclusion criteria of $p < .05$ and exclusion criteria of $p > .10$ was used to understand the relationship between the objective power variables and subjective power. The results of the multiple regression indicated that three of the objective power variables explained 11.0% of the variance ($R^2 = .110$, $F(3,376) = 15.349$, $p < .05$) in perceived power. It was found that the significant predictors of objective power were the ability to hire employees at the workplace ($\beta = .219$, $p < .05$), how many people they supervise during an average day of work ($\beta = .143$, $p < .05$), and health insurance ($\beta = .100$, $p < .05$). SEM total effects showed that the ability to punish or reprimand was positively associated with victim ($\beta = .115$, $p < .05$) and bully status ($\beta = .177$, $p < .05$). These findings support H3 but do not support H1, specifically that objective power is a positively related predictor of victim status rather than a negatively related predictor. Perceived power was found to be negatively associated with victim status ($\beta = -.262$, $p < .05$) which supports H2. Perceived power did not have a significant association with bully status ($\beta = .076$, $p > .05$) which does not support H4.
The objective organizational power statuses of the participants can be seen in Table 2. Table 3 shows how participants are compensated in terms of how they are paid. In addition to pay, participants may be compensated by receiving insurance through their employer. Of the participants’ workplaces, 82.49% offered health insurance, 75.86% offered dental insurance, and 71.62% offered eye insurance.

Table 2. Objective Power Statuses - Organizational Power

<table>
<thead>
<tr>
<th>Power Over Employees</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is a Supervisor</td>
<td>165</td>
<td>43.77</td>
</tr>
<tr>
<td>Can Promote or Demote Employees</td>
<td>89</td>
<td>23.61</td>
</tr>
<tr>
<td>Can Change the Pay of Employees</td>
<td>66</td>
<td>17.51</td>
</tr>
<tr>
<td>Can Punish or Reprimand Employees</td>
<td>151</td>
<td>40.05</td>
</tr>
<tr>
<td>Can Hire Employees</td>
<td>134</td>
<td>35.54</td>
</tr>
<tr>
<td>Can Fire Employees</td>
<td>103</td>
<td>27.32</td>
</tr>
</tbody>
</table>
Table 3. Objective Power Statuses – Compensation

<table>
<thead>
<tr>
<th>Compensation Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hourly</td>
<td>177</td>
<td>46.95</td>
</tr>
<tr>
<td>Salary</td>
<td>189</td>
<td>50.13</td>
</tr>
<tr>
<td>Completion of Job</td>
<td>13</td>
<td>3.45</td>
</tr>
<tr>
<td>Sales Commission</td>
<td>18</td>
<td>4.77</td>
</tr>
<tr>
<td>Tips</td>
<td>8</td>
<td>2.12</td>
</tr>
</tbody>
</table>

The following hypothesis was tested using correlations between bully and victim status and by analyzing the standard score of these statuses together.

H5: A reciprocal relationship is expected between reports of victimization and reports of perpetration.

Victim and bully status were positively correlated with one another ($r = .490, p < .05$) which supports H5. The overlap of bullies and victims shown in Table 4 below also supports H5.
Table 4. Bully-Victim Cutoffs

<table>
<thead>
<tr>
<th>Victim Cutoff Score</th>
<th>Bully Cutoff Score</th>
<th>Victim Cutoff Z-score</th>
<th>Bully Cutoff Z-Score</th>
<th>Bully-Victim/Victim Proportion</th>
<th>Bully-Victim/Bully Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>3</td>
<td>0.5239</td>
<td>0.5586</td>
<td>0.4244</td>
<td>0.8417</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>0.9097</td>
<td>0.8640</td>
<td>0.9565</td>
<td>0.8049</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
<td>1.2954</td>
<td>1.3220</td>
<td>0.7778</td>
<td>0.6863</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>1.6811</td>
<td>1.6275</td>
<td>0.6216</td>
<td>0.6970</td>
</tr>
<tr>
<td>19</td>
<td>7</td>
<td>2.0670</td>
<td>2.0856</td>
<td>0.500</td>
<td>0.5417</td>
</tr>
</tbody>
</table>
The following hypotheses were tested using SEM total effects:

H6: Those who report higher levels of victimization also report higher levels of anxiety and depression.

H7: Those who report higher levels of perpetration also report higher levels of anxiety and depression.

H6 was supported by the results, as bully status was also found to be positively associated with anxiety ($\beta = .393, p < .05$) and depression ($\beta = .351, p < .05$). H7 was supported by the results, as victim status was found to be positively associated with anxiety ($\beta = .720, p < .05$) and depression ($\beta = .755, p < .05$).
Other important associations between the variables were found using SEM total effects and correlations. The ability to punish or reprimand was found to be positively associated with anxiety ($\beta = .152, p < .05$) and depression status ($\beta = .149, p < .05$). Social desirability was found to be positively associated with victim ($\beta = .421, p < .05$) and bully status ($\beta = .149, p < .05$). Social desirability was found to be negatively associated with anxiety ($\beta = -.366, p < .05$) and depression status ($\beta = -.408, p < .05$). Perceived power was found to be negatively associated with anxiety ($\beta = -.262, p < .05$) and depression status ($\beta = -.279, p < .05$).

Table 5. SEM Model Standardized Total Effects

<table>
<thead>
<tr>
<th></th>
<th>Ability to Punish</th>
<th>Social Desirability</th>
<th>Perceived Power</th>
<th>Victim Status</th>
<th>Bully Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim Status</td>
<td>0.115</td>
<td>0.421</td>
<td>-0.405</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bully Status</td>
<td>0.177</td>
<td>0.187</td>
<td>0.076</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Anxiety</td>
<td>0.152</td>
<td>-0.366</td>
<td>-0.262</td>
<td>0.72</td>
<td>0.393</td>
</tr>
<tr>
<td>Depression</td>
<td>0.149</td>
<td>-0.408</td>
<td>-0.279</td>
<td>0.755</td>
<td>0.351</td>
</tr>
</tbody>
</table>
Table 6. Correlations Between SEM Model Variables

<table>
<thead>
<tr>
<th></th>
<th>Anxiety</th>
<th>Depression</th>
<th>Victim Status</th>
<th>Bully Status</th>
<th>Perceived Power</th>
<th>Social Desirability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>Pearson Correlation</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>Pearson Correlation</td>
<td>.741**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victim Status</td>
<td>Pearson Correlation</td>
<td>.416**</td>
<td>.411**</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bully Status</td>
<td>Pearson Correlation</td>
<td>.321**</td>
<td>.257**</td>
<td>.490**</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Power</td>
<td>Pearson Correlation</td>
<td>-.288**</td>
<td>-.418**</td>
<td>-.469**</td>
<td>-.101</td>
<td>--</td>
</tr>
<tr>
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<td>0</td>
<td>0</td>
<td>0.051</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Desirability</td>
<td>Pearson Correlation</td>
<td>-.382**</td>
<td>-.445**</td>
<td>-.259**</td>
<td>-</td>
<td>.377**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Table 7. Normality Tests of SEM Model Variable

<table>
<thead>
<tr>
<th>Tests of Normality</th>
<th>Kolmogorov-Smirnov\textsuperscript{a}</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Anxiety</td>
<td>0.182</td>
<td>377</td>
</tr>
<tr>
<td>Depression</td>
<td>0.142</td>
<td>377</td>
</tr>
<tr>
<td>Victim Status</td>
<td>0.207</td>
<td>377</td>
</tr>
<tr>
<td>Bully Status</td>
<td>0.279</td>
<td>377</td>
</tr>
<tr>
<td>Perceived Power</td>
<td>0.075</td>
<td>377</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>0.049</td>
<td>377</td>
</tr>
</tbody>
</table>

\textsuperscript{a} Lilliefors Significance Correction

3.2 Demographics Results

The average age of participants was 40.597, with a standard deviation of 10.846. 185 participants (49.07%) were male, and 192 participants (50.93%) were female. Other relevant demographic data is contained below in Table 8. In terms of race and sex, we find this demographic data to be comparable to the data found in the 2020 census, supporting the idea that...
this data is representative of the general population (Jones, 2022). Regarding relevant work statuses, 47 participants (12.47%) were in a union, 36 participants (9.55%) were tenured, and 6 participants (1.59%) were temporary employees. Two participants (.53%) were immigrants in the last 10 years. The median household income was $60,000-70,000 with 2 participants (.5%) making $10,000 or less and 47 participants (12.5%) making $150,000 or more.

Table 8. Racial Demographics

<table>
<thead>
<tr>
<th>Race</th>
<th>Count</th>
<th>Percentage of Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native American</td>
<td>1</td>
<td>0.27%</td>
</tr>
<tr>
<td>Asian</td>
<td>44</td>
<td>11.67%</td>
</tr>
<tr>
<td>African American</td>
<td>38</td>
<td>10.08%</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>20</td>
<td>5.31%</td>
</tr>
<tr>
<td>White</td>
<td>248</td>
<td>65.78%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>26</td>
<td>6.90%</td>
</tr>
</tbody>
</table>

*No participants reported being Native Hawaiian or Pacific Islander, Other, or Unknown

3.3 Exploratory Analyses

Demographic variables were compared to the variables in the SEM model to discover significant group differences. A Pearson correlation showed that age had a weak positive correlation with perceived power ($r = .122, p < .05$) and social desirability ($r = .142, p < .05$). A two-tailed independent samples t-test showed sex was associated with depression ($t = -2.519, p < .05$) and anxiety ($t = -2.789, p < .05$), with both being higher for women compared to men. A two-tailed independent samples t-test between union status and the variables in the SEM model showed that union status was associated with less perceived power ($t = -3.189, p < .05$). A three-way ANOVA between the highest education levels (those with less than a bachelor’s, a bachelor's, or graduate education) and the variables in the SEM model showed that higher levels of education were significantly correlated with less depression ($F(2,374) = 3.253, p < .05$). Demographic statuses with less than 30 participants in each group were not analyzed. These
statuses included tenure and immigrant status. Additionally, race was not analyzed as only as many of the racial groups had a small sample size.
Chapter 4: Discussion

4.1 Bullying and Mental Health

This study shows that many trends seen in school-age bullying are also found in workplace bullying, particularly that bully-victims occur at a higher rate than chance and that the statuses are correlated with one another. Additionally, bully-victims suffer the most psychologically, at least in terms of anxiety and depression. The fact that victims suffer psychologically is well studied, though the literature on bullies also shows increased psychological symptoms compared to those that are neither bullies nor victims. This highlights that bullies are also suffering and may benefit from psychological interventions.

4.2 The Relationship Between Bullies and Victims: Bully-Victims

The correlation between bully and victim status ($r = .490$, $p < .05$) shows that bully-victims occur at a rate higher than chance. An additional analysis, shown in Table 4, was performed for Z-scores above the mean where similar bully and victim cutoffs were put side-by-side, as well as the amount of overlap in these statuses. Altogether, these statistics suggest that bully-victim is a common identity.

The cutoffs for bullies and victims presented in Table 4, according to the standard deviation and the mean, are used due to the lack of an agreed-upon cutoff for a bully or a victim. Table 4 shows that at both lax and conservative cutoffs for bully-victim status, bully-victims occur at a rate much higher than chance. These findings further support the idea that bully status
and victim status are entangled to the degree that it is difficult to define someone as simply one or the other. The use of axial systems to understand bully status and victim status rather than categorical complicates this discussion further, as no one will be seen as being a bully, victim, or bully-victim but rather as varying degrees of these identities. This axial system could be conceptualized visually; Figure 2 shows a victim status axis and a bully status axis, with the study participants plotted. In this axial system, bully-victims would be identified as those high along both axes. Bully-victims could also be categorized by items exclusive to them that indicate both being bullied and bullying, such as items about both being bullied and bullying found in the Olweus Bully/Victim Questionnaire (OBVQ) (Solberg & Olweus, 2003). We should create an agreed-upon way to define bullies, victims, and bully-victims so that these statuses can be better understood between studies on bullying.

4.3 Power and Determining Bully/Victim Status

Those with lower perceived power tended to report being the victims of more bullying behaviors. Perceived power was a much better predictor of bully status and victim status compared to objective power. Additionally, perceived power and objective power were not highly correlated with one another, suggesting that there may be a disconnect between how powerful we feel and how powerful we are. These findings suggest that how powerful we feel is more important than how powerful we are, whether we bully or are bullied. Another explanation is that how we are treated and treat others, which in this case is if we bully or are bullied, determines how powerful we feel, much better than how powerful we are.

Given the impact of perceived power on workplace behavior, employers have an incentive to utilize interventions that empower employees. Employee empowerment has been shown to be negatively related to turnover (Favaro et al., 2021; Murray & Holmes, 2021) and
workplace bullying (Favaro et al., 2021; Kang & Han, 2021; Kim & Beehr, 2020). There have been interventions shown to empower employees that could help bring about organizational benefits. A study among nurses used an intervention called Civility, Respect, and Engagement in the Workplace [CREW] to empower employees. This intervention consisted of promoting respectful interactions among staff, helping staff develop skills in conflict management, facilitating team building, giving employees opportunities to share successes, and working to eliminate negative communication in the workplace (Spence et al., 2012). A study also showed that problem-based learning (PBL) can be used to empower employees and promote employee health as a result (Arneson & Ekberg, 2005). PBL involves group collaboration to work to find solutions and address a problem. PBL empowers employees by making them part of this problem-solving process and offers opportunities for workplace problems to be addressed.

Much can be learned from the fact that of the many objective power statuses measured, only the ability to punish or reprimand employees emerged as both significant and had a large enough sample size across its categories (those that can punish and those that cannot). Fully understanding objective statuses of power that are categorical requires a very large sample size or a sample selected based on getting a large number from each category within a categorical variable. Since the ability to punish or reprimand bullies is associated with both bully status and victim status, it may be an important factor to consider as contributing to that dual status. This association also suggests that having the ability to punish strongly integrated into an organization or institution (thereby giving the system more power) may paradoxically disempower both punisher and punished. These findings suggest that if there is a significant difference in the frequency of downward, horizontal, and upward bullying, it is not due to the objective power difference itself.
French and Raven’s conceptualization of power helps us understand which elements of power the objective power variables in this study may or may not have adequately captured (Raven, 1993). French and Raven divide power into six bases: coercive, reward, legitimate, referent, expert, and informational. Legitimate power arises from a person's position or role within an organization or society and is reflected in the structural power variables, specifically those concerning the supervision of employees and being supervised by others. Reward power stems from a person’s ability to provide rewards or benefits to others, represented in the study by variables related to adjusting pay and promoting employees. Coercive power arises from a person’s ability to administer punishments, captured by variables that measure the ability to discipline or reprimand employees.

Referent power, which relates to being likeable or respected; expert power, which involves possessing specialized knowledge or skills; and informational power, which concerns controlling valuable information, are bases of power that are not well represented in this study. These forms of power are difficult to assess accurately through self-report measures alone and are best evaluated by others. Referent power could be assessed by measuring how much an employee's coworkers perceive them as likable. Expert power is relative and can be understood by comparing one’s expertise with that of others in the workplace, a perspective that others can provide. Similarly, informational power depends on understanding the extent of information available to other employees, which is crucial for assessing an individual's ability to influence others through exclusive information. The compensation variables may reflect expertise and referent power, as possessing these forms of power may be rewarded.
4.4 Punishment and Bullying

Both bullies and victims are significantly more likely to be able to punish or reprimand employees. Punishments are meant to decrease unwanted behaviors, and they are not always successful in achieving this goal or being used appropriately. Disciplinary systems are sometimes used to punish employees unjustly, and bullies may weaponize them, with this misuse being conceptualized as organization-sanctioned bullying (Mooijiman & Graham, 2018). Victims may be more likely to be able to punish or reprimand other employees because they are in a workplace that has systems in place for employees to punish one another. For example, a workplace where many employees can punish one another may be more conducive to the interpersonal exchange of aggression than a workplace where very few employees have this ability. Additionally, victims may be more likely to be able to punish others because utilizing punishments against employees could lead to them taking revenge and bullying the person who punished them.

When misused, it is a form of bullying that an organization allows. Reviewing punishment systems and adding checks that make punishments used only when appropriate would likely help reduce workplace bullying. The use of unjust punishments may increase employee misconduct and create a work environment of hostility and distrust (Mooijiman & Graham, 2018). This study supports a link between punishment and bully status and posits the idea that decreasing workplace bullying behaviors could reduce the frequency of unjust punishments. Additionally, it may be possible to decrease workplace bullying behaviors by reviewing punishment systems to make them less likely to be abused, thus removing this avenue of bullying. While victims can feel empowered when their bullies get punished, this empowerment can also be gained by the bully changing positively (Hechler, 2023). In fact,
victims feel more empowered when offenders change for the better without being motivated by punishment. This suggests that interventions that help bring about offender change in bullies could help empower victims more than relying on punishment systems.

4.5 Social Desirability and Conforming

Social desirability being associated with both bully and victim status suggests the possibility that bullies try to make others conform while victims conform to try not to be bullied. One reason people bully others is to get them to conform (Cho & Chung, 2011). In the workplace, specifically, a study by Liang (2020) showed workers can be bullied into conforming to organizational values for fear of organizational consequences. Liang’s study also suggested that by conforming to organizational values, we compromise our own values, leading psychological strain. People are more likely to be targeted by bullies if they stand out and do not have a group to identify with (Glambek et al., 2020). These risk factors for bullying are connected because group identification can be made more difficult by being dissimilar to one’s coworkers. This means conforming may be a way to identify with others and to no longer be a target of bullying. Covert bullying often follows organizational rules and social norms, which makes this form of bullying considered socially desirable compared to overt bullying (Salin, 2021). In this study, it was found that covert bullying behaviors were much more common than overt ones, suggesting that bullies in the workplace seek to make their bullying behaviors socially accepted.

4.6 Exploratory Demographic Analyses

The following findings on age, sex, highest education level, and union status are not within the main focus of this study but are included to address group differences that other
bullying literature has focused on. Consistent with past literature, anxiety and depression were significantly higher in women than men, showing a weak correlation between sex and anxiety and depression (Kuehner, 2017). Age was weakly positively correlated with perceived power, which suggests that older individuals may view themselves as more powerful. Age was weakly positively correlated with social desirability, which suggests conformity may be higher among older individuals. No significant age or sex differences were found regarding victim and bully status.

Higher levels of education being associated with less depression could have several explanations given that education level can affect the types of jobs people work and is linked to economic status, which is linked to depression (Freeman et al., 2016). The reason union status is associated with less perceived power could be that unions are used by workers who feel disempowered to empower themselves. This suggests that unions are insufficient in empowering workers, at least in terms of how powerful they perceive themselves to be.

4.7 Bullying Behaviors and Punishment

Workplace bullying behaviors tend to be psychological in nature, so it is difficult to detect and deter. The most common acts of bullying, according to the consensus of the victim and the analogous bullying scale, are teasing, overworking, and social isolation. The least common, include physical violence to person and property, as well as threats. The more common bullying behaviors can be given extra attention in anti-bullying interventions that involve teaching employees how to identify and combat these behaviors due to their covertness and commonness. Covert bullying behaviors likely serve the same functions as overt bullying behaviors but can be done without organizational consequence. Addressing covert bullying
behaviors requires both their identification and punishment. Punishment systems may not consider covert bullying behaviors severe and evident enough to be punished. These added challenges suggest that punishment systems used to address covert bullying are vulnerable to failure and that it may be better to rely more heavily on other interventions.

4.8 Bullying Interventions Beyond Punishment

Successful non-punishment based bullying interventions include bullying policy and training programs, rehearsal training programs, conflict management training, and inpatient bullying CBT therapy (Escartin, 2016). Applying interventions that have historically been used only to help victims should be used with bullies as well (Aarestad et al., 2022). This is based on the conclusions of this study, which show that victim and bully status often overlap and that bullies suffer increased anxiety and depression like victims do. The idea that bullying is an ineffective coping skill based on interpersonal aggression would suggest that a useful intervention would be to teach those in hostile environments coping skills that are specifically used to cope with aggression and interpersonal conflict. These coping skills may help end these cycles of aggression by allowing workers to cope effectively and without harming others.
Chapter 5: Conclusions

5.1 Conclusion

This study and the literature suggest that bullies and victims are similar in terms of personality, mental health struggles, and propensity to take on the dual role of bully-victim. Additionally, victims and bullies have little separation in the power they have and the power they perceive. The increased anxiety and depression in bullies and victims shows the psychological toll bullying behaviors have on all those involved.

There are several methods that may help combat workplace bullying. One is to regulate organizational punishment systems, so they are not used unjustly and rely more heavily on other interventions. These other interventions include educating employees about bullying and bullying behaviors as well as therapeutic interventions such as CBT. Targeted therapeutic interventions that have been used on victims may also benefit bullies, given their similarities. Coping with aggression should also be one of the primary focuses of therapeutic interventions, as bullying behaviors are maladaptive acts of aggression that likely not only create victims but also more bullies. Organizations can empower employees by encouraging more positive and active workplace behaviors and by using problem-based learning and other interventions.

Bullying research may advance with a more nuanced understanding of bullies, victims, and the bully-victim. Although a great deal of effort is expended to categorize others as bullies, victims, or none of the above, perpetrating bullying and being the recipient of it are often overlapping and varied experiences. The narrative that workplaces must help victims and punish bullies becomes
more complex when bully-victims are considered, as well as the psychological strain bullies also face. Helping those in the cycle of aggression that is bullying, no matter their role, could prove more effective than any other approach to combating workplace bullying.

5.2 Limitations

This study only focused on depression and anxiety, whereas other psychopathologies may develop as a result of bullying. Some categorical objective power statuses, such as those receiving tips, were too small of a group to be included in the statistical analysis. The survey was done remotely and anonymously, meaning that the identities of the participants and the factuality of their responses could not be verified. Additionally, Prolific users may differ from the general population in unknown ways relevant to the study. The use of self-report measures without reports from another observer causes concerns for accuracy due to self-report bias. Data between multiple reporters would have been ideal to check for consistency between sources. Additionally, many of the self-report measures contained difficult topics about bullying and mental health, which may make them more susceptible to self-report bias. It was outside the scope of this study to investigate the bidirectionality of the relationship between mental health and bullying, where literature on Machiavellianism, narcissism, psychoticism, and aggression suggests that mental health issues may fuel bullying behaviors. Given high intercorrelations among the study variables, several alternative SEM models could be constructed, and this study had to constrain itself to its theoretical conceptualization of their relationships to produce one model.

5.3 Future Research

Areas of future research include addressing the limitations and expanding on the key findings of this study, specifically the findings related to bullies and bully-victims as well as
punishment systems. Interventions specific to bullies and bully-victims could be developed and studied, as most group-specific interventions are tailored to victims, and the psychological distress these groups go through suggests they could also benefit from specific interventions. Broader psychological measures could be used, especially in measuring Machiavellianism, narcissism, psychoticism, and aggression, as these may be good predictors of bully status and victim status. Additionally, including more psychological measures would determine if experiencing and/or perpetrating bullying is a risk factor for psychopathologies other than anxiety and depression. Further research could be done to study employees that can punish or reprimand other employees, such as the types of punishments they can use and how often they use them. Including in-depth questions about punishment systems and mental health may help direct more specific ways that punishment systems in the workplace could be changed to reduce workplace bullying and psychological distress. Addressing the limitations of this study by including reporting by other observers, specifically coworkers and supervisors, could help provide a consensus of someone experiencing or perpetrating bullying that is less subject to bias. In addition, observer-reporting would be crucial to measuring interpersonal bases of power (e.g., referent power, expertise power, and informational power), which should be considered in future research on victims, bullies, and bully-victims.
References


