

# Workplace Bullying and Patient's Safety: A Timelag Study

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## Research Article

**Keywords:** Workplace Bullying, Perceived Co-worker's Social support, Patient safety, Job Stress, Turnover Intention, Job Performance, Organizational Citizenship Behaviour at Individual Level

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# Abstract

**Objectives.** Using transformational theory and Chaos the research intends to explain the impact of workplace bullying on dental profession, threat it poses to dental patient safety and investigating the power of perceived co-worker social support to diminish the aftermath of workplace bullying.

**Material and Methods.** The study is quantitative, descriptive and causal in nature. Data were collected in two-time lags from 267 dental professionals by using convenience sampling technique.

**Results.** Findings of the study indicates that the workplace bullying among dental professionals is strongly linked with job stress, turnover intention and job performance which in turn challenges the safety of patient. Perceived co-worker social support is directly linked with job performance and organizational citizenship behaviour. Study highlights the power of Perceived co-workers social support in weakening the relationship between workplace bullying and turnover intention and Job performance of victim of bullying.

**Conclusion.** The role of Perceived co-worker support on victims diminishes the cost associated with intention to leave and Job performance, offering recommendations to health care managers and medical educationists. Anti-bullying policies should be communicated among dental students, across educational institute & implemented under strict supervision of institutional management. The issue should be taken seriously, proper allocation of time, resources, anti-bullying policies should be communicated, fellows should be encouraged to help victims to report act. Bullying culture blooming among health care providers challenges the quality care to patients, only by utilizing the significant role played by co-workers this research highlights ways to overcome risks to quality care and safety of patients.

## Introduction

The cruel irony among dentist, doctors and nurses is that they are driven towards health profession to improve the quality of life of their patients, contributing to community wellbeing, brightening rays of life in those who are distressed, physically and mentally vulnerable, yet the majority of them have been bullied by their colleagues and supervisors.

Workplaces are where humans interact socially, compete enthusiastically, perform under time pressure, utilizing scarce resources, have differences in goals, opinions, personalities, priorities, belonging to different cultures, religion, faith. Where there is vast range of disparity, the aggression, the conflict, the hostility and envious behaviour patterns among people could not be ignored. Workplace bullying is a tenacious continuous form of misdeed, misconduct, exploitation in the workplace by employees, fellows, colleagues, subordinates, supervisors and or others that causes severe impact and compromises psychological, social and physical wellbeing of an employee. Research on workplace bullying has been increased since past two to three decades, as, apart from psychological and physical impact, loss of costs associated with this deleterious act have been recognized by human resource practitioners and organizational psychologists. Perceived social support provided by co-workers, fellows and colleagues is related to subjective prosperity, emotional and psychological benefits impacting influences on cognitive behavior/ attitude and upon individual patterns of performance at workplace as well. As a consequence of occupational stress, dentist in general practice experience more physical and mental health issues as compared to other health professionals <sup>1</sup>. WPB and its antecedents had attained the attention of researchers since long <sup>2</sup>. Few researches have been conducted exploring, investigating and finding, all the above variables together, therefore, this research will help opening new avenues for future recommendations.

By gaining support from transformational and chaos and complexity theories the study explains workplace bullying and its possible consequences. Transformational theory proposed by Jack Mezirow exists when a life changing event or dilemma occurs changing the assumptions, beliefs, behaviour, attitude, overall perspective of the person's mind frame<sup>3</sup>. If an employee continues to face the dilemma of workplace bullying his perspectives could change, leading towards poor performance, changing behaviour, beliefs because of the extent of damage caused by workplace bullying, in form of physical, mental and financial as well. Transformational theory is linked with victims of workplace bullying, they exhibit transformation because they don't report the act, suffer, compromising their health, resources, energy, showing poor performance issues, engaging and participating less frequently<sup>4</sup>. The concept behind that chaos and complexity theory is that a small change or small differences in initial conditions or state could possibly result in large differences or outcomes in a later state. Similarly, if an employee is encountered by repeated act of misconduct at workplace, the change in his state either physical or mental, if not managed or handled properly could possibly result in more disastrous effects. The study is intended to investigate the link of strong bonds of direct effects of workplace bullying on Employee's outcomes, exploring the possible transformations that are linked with workplace bullying dilemma.

Most dental workplaces are aware WPB exists, but they are often unprepared when it happens. They tolerate bullying as style of leadership, also because of lack of effective policies and protocol in place or either are unable to identify or do not have authority to do

something about the situation<sup>5</sup>. The present study aims to explore the unexplored outcomes and the consequences associated with the deleterious act of bullying. An attempt to conduct this study is also unique in a way that there are very limited studies conducted on workplace bullying specially surrounding the health sector work area. The significance of this research is to exemplify, investigate and bring to surface the appalling bullying culture, thus exploring the construct of bullying in the workplace and to explore the role of unexplored variable in bullying literature, perceived coworkers social support, the role played by fellows, colleagues to combat all the consequences of deleterious influences of workplace bullying, in the broad context, specially referring to dental practitioners.

## **Workplace Bullying and Employees' Outcomes**

The activity of workplace bullying usually happens when there is inequality and disproportion of capabilities and power, treating bullied employee as scapegoat and victim of systematic negative social act<sup>6</sup>. Workplace bullying is the worst type of social stress being evident at workplaces<sup>7</sup>. Different types of bullying evident at workplaces are<sup>8</sup>: Serial Bullying, Pair Bullying, Gang or Group Bullying, Secondary Bullying, Residual Bullying, Client Bullying, Institutional Bullying, Cyber Bullying, Corporate Bullying, Unwitting or Pressure Bullying, Organizational Bullying, Vicarious Bullying, Legal Bullying, and Regulation Bullying. One of the common characteristics of bullies is narcissism. Narcissistic bullies love to take credits of others work, everything is all about them<sup>9</sup>. Machiavellians are cold, insincere, manipulative type of bullies, they love to act behind the scenes. Open hostile bully, gets appeased and satisfied and they bloom and prosper on rivalry, conflict, determined and loves to dominate, have no fear of concealing the activity, usually use the tactic of name calling and confrontation. Health care workers might be vulnerable to this type of bully because of their helping and caring temperament. Disturbing bullies are psychopaths, with personality disorders, they lie, cheat, threaten, may have history of mental illness, addictions or history of bullying<sup>10</sup>. The act of workplace bullying has been main focus of many researchers since long. In one of the studies, for investigating the prevalence and experience of bullying behaviour seen, a survey was conducted by Steadman, gathering data from two hundred and twenty-seven post graduate hospital dentists, the study concluded that 25% of respondents identified themselves as victims of bullying, 47% witnessed colleagues being bullied<sup>11</sup>.

In a report by Boorman on NHS employees, the author concluded that almost 80% of staff of the healthcare assumed that condition of their physical and mental health impacted influences on how they treat and handle their patients<sup>12</sup>. Stress due to workplace bullying is subdivided into many forms, stress generated by WPB, that poses significant threat and danger to personal status (including psychological and physiological states), professional status of victim employee, stress generated due to socially excluding or isolating, stress related to unmanageable and unbearable workload, stress due to destabilization and imbalance. Employees that work with narcissist tend to exhibit higher level of stress, that in turn increases staff turnovers<sup>13 14</sup>. A study, highlighting the impact of workplace bullying on job performance, turnover intention, OCB and stress, concluded that the intention to leave was the most critical and compelling influence of workplace bullying, increase in stress was related to increased incidents of workplace bullying, whereas, decrease in workplace bullying was associated with better task performance and enhanced citizenship behaviour among data collected from three hundred and twenty bank employees<sup>15</sup>.

On the basis of above discussion, hypotheses proposed are:

**H1a: Workplace bullying is positively related to Job Stress**

**H1b: Workplace bullying is positively related to Turn over Intention**

**H1c: Workplace bullying is negatively related to Job Performance**

**H1d: Workplace bullying negatively related to OCB-I**

## **Perceived Co-worker Social Support and Employee's Outcomes**

Perceived co-worker social support is deliberated as the individual's impression and subjective judgement, notion and recognition that coworker or fellow would provide aid, give backing, offer co-operations and would provide help during and at the time of distress<sup>16</sup>. It is multidimensional construct, different forms of Social Support provided by co-workers are: Structural Support, degree with which one is linked with the social network that surrounds him and Functional Support, particular specific functional means that are provided and contributed by the community to whom the individual integrates. May be in a form of emotional, informational, instrumental and companionship support<sup>17</sup>.

Recent studies concluded that the benefits that are associated and connected with perceiving the social support are more than the actual received one (enacted) emphasising that functional support provided is critical in stressful conditions. PCS plays an important significant role on employee outcomes, helps to combat stressful conditions at work thus reducing turnover intention Perceived co-worker support has received considerable attention in past, and is significantly associated with performance, organizational citizen ship behaviour and other factors contributing towards employee's wellbeing. The co-worker social support plays crucial and decisive role in employees' motivation, enhancing behaviour patterns and work-related outcomes<sup>18</sup>.

Thus, it is hypothesized:

**H2a: Perceived co-worker social support is negatively related to Job Stress**

**H2b: Perceived co-worker social support is negatively related to Turnover Intention.**

**H2c: Perceived co-worker social support is positively related to Job Performance.**

**H2d: Perceived co-worker social support is positively related to OCB-I**

## **Moderating Role of Perceived Co-worker Social Support Between Workplace bullying and Employees' Outcomes**

Sarasons highlighted the relationship between social support, personalities and performance particularly in sports, described the concept linked between perceived support and its relation to development of skills and performance at work <sup>19</sup>. Park and Kim <sup>20</sup> found, in a study of employees of health care, that high social support was positively linked and associated with higher levels of work performance. One of the studies conducted on nurses working in NHS, concluded that 40% of nurses, who experienced workplace bullying, confirmed that the level of job satisfaction diminished to critical levels, intentions to turn over the employment were ignited, raised levels of anxiety and depressions and compromised performance issues were reported and co-workers support endorsed lacked the capabilities of coping with deleterious act of bullying as reported by respondents <sup>21</sup>.

The above discussion concludes following hypotheses:

**H3: Perceived co-worker social support moderates the relationship between workplace bullying and Job stress in such a way that high Perceived co-worker social support weakens the relationship**

**H4: Perceived co-worker social support moderates the relationship between workplace bullying and turnover intention in such a way that high Perceived co-worker social support weakens the relationship**

**H5: Perceived co-worker social support moderates the relationship between workplace bullying and job performance in such a way that high Perceived co-worker social support weakens the relationship**

**H6: Perceived co-worker social support moderates the relationship between workplace bullying and OCB-I in such a way that high Perceived co-worker social support weakens the relationship**

## **Methods**

It is a time lag study. T1, Sect. 1 questionnaire are distributed among participants, during this period, the data for variables WPB and PCS are collected. The interval between T1 and T2 is approximately 4 to 5 weeks. During, time lag 2, T2, Sect. 2 questionnaire are distributed among same participants who responded to Sect. 1, questionnaire regarding employees' outcomes are distributed.

The Population and sample of this study consist of 267 dental professionals. Convenience sampling under non-probability sampling technique is used. Online collection of data is conducted by distributing questionnaire using google form. Workplace bullying questionnaire is adopted from R-NAQ<sup>22</sup> consisting of 22 items, on Likert scale from 1–5. Perceived co-worker social support scale consists of 6 items<sup>23</sup>. Job Stress scale<sup>24</sup>, consists of 9 items. 6 items of “turnover intention scale (TIS-6)” are used<sup>25</sup>. Job performance and OCB-I scales<sup>26</sup>, consist of 7 items each. All the scales measuring the variables are highlighting acceptable to excellent internal consistency levels. 0.93 Cronbach’s alpha value of workplace bullying depicts that the internal consistency of the scale is excellent. Similarly, Cronbach’s alpha values of PCS ( $\alpha = 0.88$ ), Job stress ( $\alpha = 0.87$ ), Job performance ( $\alpha = 0.80$ ), and OCB-I ( $\alpha = 0.85$ ) indicate all the scales have good internal consistency values. The ( $\alpha = 0.79$ ) value of Turnover intention is indicating acceptable to good internal consistency level. Consent form is attached along with questionnaire, for ethical reason. Participation is on voluntary bases. Participants are ensured that their names and identities will be kept confidential and special numbers are allotted to respondents, for ease of collecting data, and data are collected from same participants using special numbers, in Time lag 2.

**Ethical Protocol and Consent.** Consent form is attached along with questionnaire, for ethical reason. Participation is on voluntary bases. Participants are ensured that their names and identities will be kept confidential and special numbers are allotted to respondents.

Table 1  
Demographics of Respondents

	Frequency	Percent	Cumulative percent
<b>Gender</b>			
Male	81	30.3 %	30.3
Female	186	69.7 %	100
<b>Qualification</b>			
Final year trainees	73	27.3 %	27.3
BDS	103	38.6 %	65.9
Post graduate	91	34.1 %	100
<b>Experience</b>			
Final year trainees	73	27.3 %	27.4
HJ/ House officer	56	21.1 %	48.5
2–5 years	75	28.1 %	76.4
6–10 years	26	9.7 %	86.1
10 years +	37	13.9 %	100
<i>Total Number of Respondents. N = 267</i>			

## Results

Data analysis is done using SPSS 23rd version. The correlation coefficient value between Perceived coworker social support and workplace bullying ( $r = -0.32^{**}$ ), Turnover intention with workplace bullying ( $r = 0.48^{**}$ ), between Job

performance and WPB ( $r=-0.38^{**}$ ), Job performance and Perceived co-worker social support ( $r = 0.50^{**}$ ), OCB-I and Perceived coworker social support ( $r = 0.45^{**}$ ) is indicating statistically significant moderate, associations among variables.  $r = 0.51^{**}$ , between Job stress and Workplace bullying variables is indicating statistically significant strong, positive association among variables. The correlation coefficient values of Job stress and PCS ( $r= -0.22^{**}$ ), Turnover intention with PCS ( $r=-0.18^{**}$ ), and OCB-I with workplace bullying ( $r= -0.18^{**}$ ) are depicting relatively significant weak, negative association among the study variables.

Table 2  
Regression Analysis

Predictors	Job Stress			Turnover Intention			Job Performance			OCBI		
	$\beta$	R <sup>2</sup>	$\Delta R^2$	$\beta$	R <sup>2</sup>	$\Delta R^2$	$\beta$	R <sup>2</sup>	$\Delta R^2$	$\beta$	R <sup>2</sup>	$\Delta R^2$
<b>Step1</b> (control variables)												
Qualification	-.02	.00	.00				.157	.14	.14	.056	.09	.09
Experience				.02	.001	.001	.107			.206		
<b>Step2</b>												
WPB	.60***	.27	.27	.56***	.24	.24	-.25***	.37	.23	-.06ns	.24	.15
PCS	-.06ns			-.05ns			.26***			.32***		
<b>Step3</b>												
WPB * PCS	.09ns	.27	.006	-.17**	.26	.018	.103*	.38	.01	-.08ns	.24	.005
(* $p < .05$ , ** $p < .01$ , *** $p < .001$ ), ns = Not Significant, OCBI = Organizational Citizenship Behaviour at Individual level												

Table 2 shows showing statistically highly significant relationship between WPB (workplace bullying) with Job stress, Turnover intention, Job performance and Perceived co-worker social support with Job performance and OCB-I variables. Statistically Significant result, the direct effect of Job stress on WPB ( $\beta = 0.60$ , Change in  $R^2 = .27$ ) indicating, that that one unit increase in incident of workplace bullying will increase job stress by .60 units supporting the hypothesis 1a. Statistically Significant direct effect of TOI (Turnover intention) with positive sign ( $\beta = 0.56$ ,  $R^2 = 0.24$ ), is indicating very strong significant positive relationship between WPB and TOI, therefore according to the result, hypothesis 1b is supported. The table indicates statistically strong significant relationship, ( $\beta = -.17$ ) shows that the combined effect of PCS and WPB significantly decrease the TOI by 0.17 unit, indicating that PCS is weakening the relationship between them. To check the further support of the hypothesis that moderation effect of PCS on WPB and TOI moderation graph is plotted. According to Fig. 2, the graph strongly shows the high PCS is decreasing the TOI even when the WPB is high, thus, weakening the relationship between them therefore, supporting the hypothesis 4.

Statistically Significant Results ( $\beta = -.25$ ) showing that one unit increase in Workplace Bullying will significantly decrease the job performance up to .25 units, is supporting the hypothesis 1c. Results in step 2 of Table 2, indicate that probability value is  $< .001$ , showing ( $\beta = .26$ ) that one unit increase in Perceived Co-worker Social Support will increase the job performance up to 0.26 units, hence, supporting the hypothesis 2c. In step 3 of the table, probability value,  $p < .05$ , shows significant relationship between Job performance and interaction term. Beta coefficient ( $\beta$

= .103) result shows that the combined effect of workplace bullying and perceived co-worker social support will significantly increase the job performance level up to .103 units more.  $R^2$  value of .38 indicates that the impact of combined effect of workplace bullying and perceived co-worker social support contribute up to 38% on Job Performance. To support the moderation effect of Perceived co-worker social support on WPB and Job performance, moderation graph is plotted. Figure 3. shows when PCS is high it shows relatively the upward tilted slope of job performance as compared to downward directed slope when perceived co-worker social support is low in case of high workplace bullying, thus, supporting the hypothesis 5. Results of regression on OCB-I ( $\beta = .32$ ,  $R^2 = .24$ , change in  $R^2 = .15$ ) is indicating that one unit increase in Perceived Co-worker Social Support will increase the organizational citizenship behaviour at individual level significantly by .32 units thus supporting the hypothesis 2d.

## Discussions

The findings of Workplace Bullying direct positive significant association with job stress, turnover intention & negative association with job performance (H1a, H1b, H1c supported hypotheses) and perceived co-worker support positive significant associations with Job Performance & OCB lend full support to previous studies (H2c, H2d supported hypotheses). Whereas, not significant direct negative association of WPB with OCB-I, (H1d not supported hypothesis) in the current study and PCS (Perceived co-worker social support) association findings with job stress and turnover intention are in compliance with previous studies (H2a, H2b not supported hypotheses). Findings that Perceived co-worker social support moderates the association b/w workplace bullying and turnover intention (H4 supported hypothesis) is contrary to findings of prior studies. Whereas finding of PCS moderating the association b/w workplace bullying and job Performance (H5 supported hypothesis) lend full support to prior research. The inconsistent effect of PCS on WPB and job stress outcome, in the current study, suggests the possibility of other factors/ variables existing in this relationship, thus, opening new doors for future research recommendations of exploring, finding, and investigating the possible mediators or and moderators in the path.

There are certain implications of this study. As highlighted by the literature, significant financial cost is associated with workplace bullying. Costs to victim in form of loss of income by sickness absence, ill health, due to job stress, absentees to avoiding bullies, reduction in salary due to poor performance, early retirement or quit the job, additional costs due to medical consultation, medicines, hospitalization<sup>27</sup>. As the findings of this research shows the significant impact of PCS on turnover intention and job performance thus indicating the loss of cost associated could be minimized to some extent.

The current study offers certain recommendations to the managers working in different organizations. The issue of bullying at workplace should be taken more seriously, proper allocation of time and resources for the prevention and control of this global issue is highly recommended. Development of departments and divisions where victims should register complaints against the act should be the initial most step of human resource management units or division. As critical and crucial part of prevention programs at workplaces relies upon the commitment and determination of management and how well these commitments are communicated and executed. Prevention and control of workplace bullying must be led by example from the top management. Anti-bullying policies should be communicated among employees and implemented under strict supervision of management for providing bullying free culture at workplace. Policies should and must administer definite illustrations and patterns of despised abhorred conduct and unacceptable working circumstances and situations. Policies must be rigid and clarify accurately the disciplinary actions and punishments related regarding conducting and or showing abusive behaviour and actions. Policies formed should be such that victims and witness should feel encouraged in reporting and communicating incidents of unacceptable conducts to come under the notice of the concerned authority or management. Must be reviewed

regularly. All the complaints should be treated seriously and confidentially. Investigations must be impartial, fair and fulsome. Enforcing punishments should be in accordance with the degree and kind of this specific notorious act. Fellows should be encouraged to help victim to report such incidents, motivating the morale and making the bond. Implementation should be followed by regular training and counselling sessions/ programs among employees with the purpose of creating awareness and providing a platform where there is enhancement of relationship among employees, focusing on the team calibration and cooperative behaviour, thus creating positive, friendly, work environment.

In this alarming situation, where there is less awareness of the matter in developing countries, an attempt of exploring the impact of workplace bullying, highlighting the consequences, investigating and finding possible outcomes, suggesting ways for preventing and controlling this global dilemma of workplace bullying, the current study possesses distinctive advantage.

## **Conclusion**

The dilemma of appalling bullying culture generates wide range of challenges to all occupations possessing ethical and leadership crisis, flourishing in any context, where human beings interact. The key contribution by this research is that it mainly highlights dental workplaces, opening new avenues in bullying literature by advocating and justifying the findings that perceived co-worker social support can help diminish the negativity associated with workplace bullying, therefore, also reducing the loss of financial costs both at personal and organizational levels associated with poor performance issues and turnovers, thus, contributing towards filling the gap in the bullying literature. The notorious association between bullying and stress at workplace could not be ignored, this research is distinctive in nature that it advocates well the disastrous relationship, recommending and suggesting researchers to fill the gap by exploring and investigating possible factors which would help to combat and break this strong connection.

According to previous studies, barriers were evident in reporting the incidences of deleterious act, the main reasons behind were the victims might perceive that they would be taken as agitator, the fear from bullies and the apprehension that there would be no advancement regarding the control and prevention of bullying act. Mere developing policy against growing incidents of WPB will not do any good, enforcing and implementing of policies are highly recommended. To get rid of this appalling culture encouragement and backing shall be provided to victim and witness both, by concerned authority and also by fellow workers. Generating awareness among health care staff and community as a whole is the preliminary step in maintain and protecting the dignity, enhancing the physical and mental capabilities of employee, nurturing the best behavioural outcomes beneficial for organization, employee and above all for the wellbeing of community as a whole.

## **Declarations**

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## **Conflict of interests**

Author of the research declare, that she has no conflict of interests.

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# References

# Figures

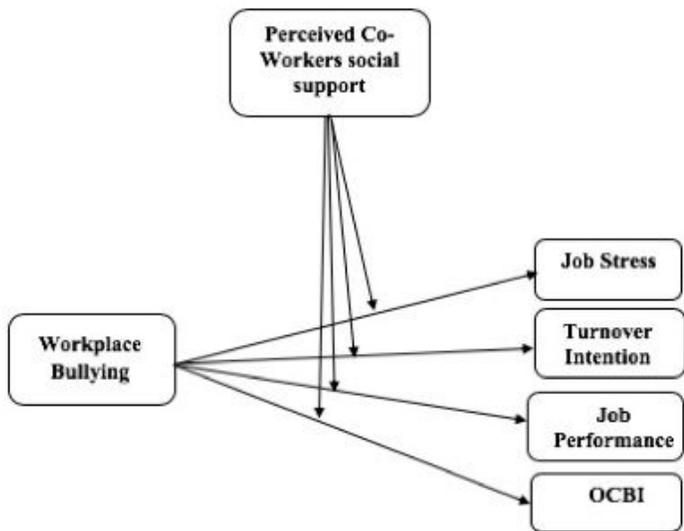


Figure 1

Theoretical Framework

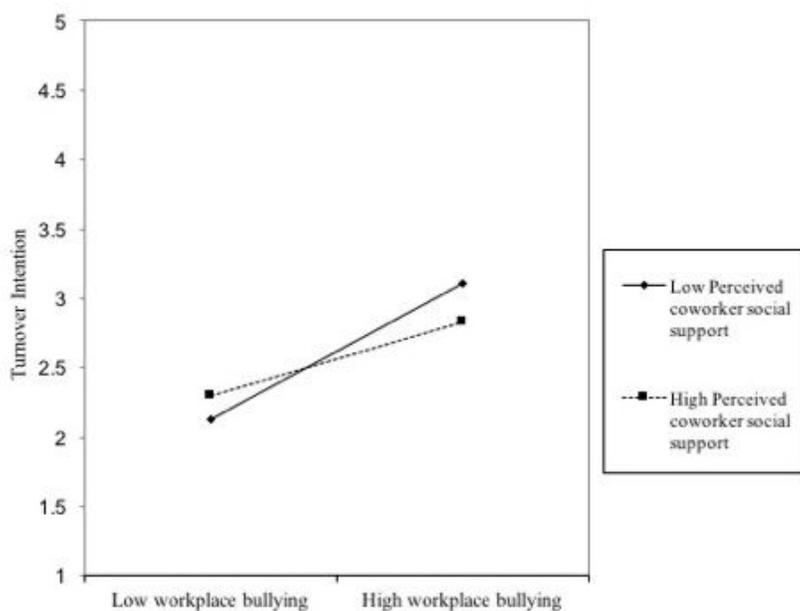


Figure 2

1. Kholasi. Stress and burnout research project, *BDJ*, vol. 223, p. 559, 27 October 2017.  
doi: 10.1038/sj.bdj.2017.912.

---

2. Razzaghian M, Gani. Effect of Workplace Bullying on Turnover Intention of Faculty Members: A Case of Private Sector Universities of Khyber Pakhtunkhwa, Pakistan, *Business & Economic Review*, pp. 40-51, 2014.

---

3. Clark M C. Transformational Learning, *New directions for adult and continuing education*, vol. 57, pp. 47-56, 1993.

---

4. Hadeed S. A. How Transformational Theory can be used to Understand the Personal Experience if Being BULLied in the Workplace, *Semanticscholar*, 2014.

---

5. Kaweckyj N, Henry K. Bullying in Dentistry: Is it Getting Worse? What can you do?, *Dentistry IQ*, April 2018.

---

6. Einarsen S, Skogstad. A. Bullying at work: Epidemiological findings in Public and Private Organizations, *European Journal of Work and Organizational Psychology*, 1996. doi: 10.1080/13594329608414854.

---

7. Einarsen S, Hoel H, Zapf D *et al.* The Concept of Bullying at Work, in *Bullying and Emotional Abuse in the Workplace*, London, Taylor & Francis Inc, 2003. ISBN: 978-0-415-25359-8

---

8. Field T. Bullying: what is it?, 2016. [Online]. [https://en.wikipedia.org/wiki/Workplace\\_bullying](https://en.wikipedia.org/wiki/Workplace_bullying)

---

9. Penney L M, Spector P E. Narcissism and Counterproductive Work Behavior: Do Bigger Egos Mean Bigger Problems?, *international Journal of Selection and Assessment*, 2002. doi: 10.1111/1468-2389.00199

---

10. James O. How to Thrive in a World of Lying, Backstabbing and Dirty Tricks, 2013. <https://www.theguardian.com/books/2013/feb/14/office-politics-oliver-james-review>.

---

11. Steadman L, Quine L, Jack K *et al.* Experience of Workplace Bullying Behaviours in Postgraduate Hospital Dentists: Questionnaire Survey, *BDJ*, 2009. doi: 10.1038/sj.bdj.2009.901.

---

12. Boorman S. NHS Health and Well-being: Final Report, Royal Mail Group, Leeds, 2009.

---

13. Thomas D. Narcissism: Behind the Mask, vol. 1st Edition, The Book Guild Ltd, 2010.

---

14. Colligan *et al.* Workplace Stress: Etiology and Consequences, *Journal of Workplace Behavioral Health*, 2005.

---

15. Khalique M, Arif I, Siddique M *et al.* Impact of Workplace Bullying on Job Performance, Intention to Leave, OCB and Stress, *Pakistan Journal of Psychological Research*, 2018.

---

16. Bateman G. Employee perceptions of co-worker support and its effect on job satisfaction, work stress and intention to quit, *UC Research Repository*, 2009. <https://core.ac.uk/download/pdf/35463385.pdf>

---

17. Uchino B. Social Support and Physical Health, in *Understanding the Health Consequences of Relationships.*, New Haven, C, Yale University Press, 2004, p. pp. 16–17. DOI: 10.1007/s10865-006-9056-5

---

18. Lai P Y, Lee J S, Lim Y X *et al.* The Linkage between Training and Development and Co- Worker Support towards Employee Engagement in Hotel Industry, *International Journal of Scientific and Research Publications*, vol. 5, no. 5, May 2015.

---

19. Sarason I G, Sarason B R. Social Support, Personality, and Performance, *Journal of Applied Sport Psychology*, 1990. doi: 10.1080/10413209008406425

---

20. Park J S, Kim T H. Do Types of Organizational Culture matter in nurse job satisfaction and turn over intentio?, *Leadership in Health Services*, pp. 20-38, 2009. ISSN: 1751-1879.

---

21. Quine L. Workplace Bullying In Nurses, *Journal of Health Psychology*, 2001. doi: 10.1177/135910530100600106.

---

22. Einarsen S, Hoel H. The Negative Acts Questionnaire: Development, Validation and Revision of a Measure of Bullying at Work, *10th European Congress on Work and Organizational Psychology*, May 2001.

23. Ray E B, Miller K I. Social Support, Home/Work Stress, and Burnout: Who can Help?, *The Journal of Applied Behavioral Science*, vol. 30, no. 3, pp. 357-373, September 1994.

---

24. Shukla A, Srivastava R. Development of short questionnaire to measure an extended set of role expectation conflict, coworker support and work-life balance: The new job stress scale, *Cogentoa, Business and Management*, 2016. . doi: 10.1080/23311975.2015.1134034.

---

25. Bothma F, Roodt G. The validation of the turnover intention scale, *SA Journal of Human Resource Management*, vol. 11, no. 1, 2013. doi: 10.4102/sajhrm.v11i1.507

---

26. Williams L J, Anderson S E. Job Satisfaction and Organization Commitment as Predictors of Organizational Citizenship and In-Role Behaviours, *Journal of Management*, vol. 17, no. 3, pp. 601-617, 1991. doi: 10.1177/014920639101700305.

---

27. Martino V D, Hoel H, Cooper C L. Preventing Violence and Harassment in the Workplace," *European Foundation for the Improvement of Living and Working Conditions*, 2003.

Moderation Graph of Perceived Co-worker Social Support on Turnover intention and workplace bullying

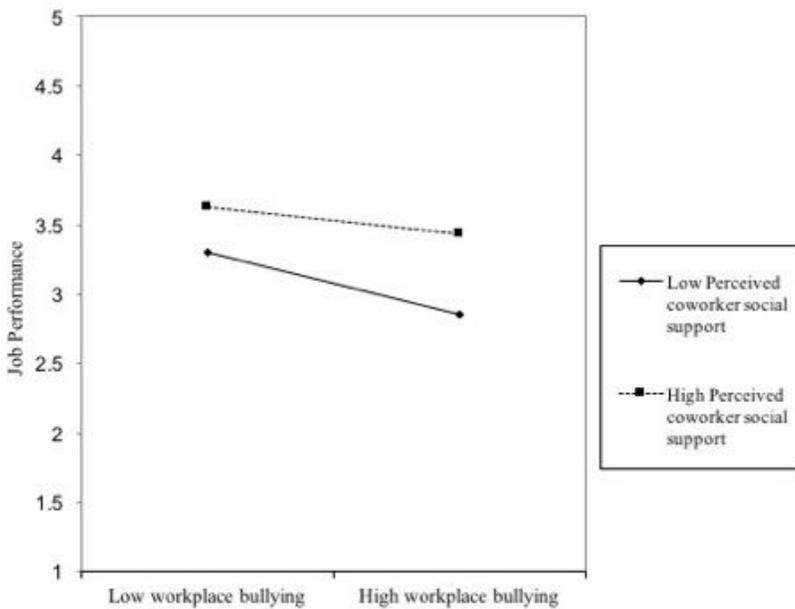


Figure 3

Moderation Graph of Perceived Co-worker Social Support on Job Performance and workplace bullying