

**RELATIONSHIPS BETWEEN PERCEIVED INJUSTICE, WORK RELATED DEPRESSION, ANXIETY, AND IRRITATION AND THEIR EFFECT ON TURNOVER INTENTION AMONG EMPLOYEES IN A MANUFACTURING COMPANY**

**PQ Radebe**

Vaal University of Technology, South Africa  
patrick@vut.ac.za

**M Dhurup**

Vaal University of Technology, South Africa  
manilall@vut.ac.za

**–Abstract–**

The current study aims to establish the relationship between perceived injustice, work related depression, anxiety, irritation and turnover intention in the fast paced manufacturing environment.

A cross-sectional survey using a convenience sampling method was used to collect data from sample participants. Data were analysed from 168 questionnaire administered to employees in a company that manufactures computer parts. Data were computed using the Statistical Package for Social Sciences (SPSS), version 24. Correlation and regression analyses were conducted to establish the relationship between perceived injustice, work related depression, anxiety, irritation and turnover intention.

The study proved that perceived injustice was positively related to work-related depression and work-related irritation, which in turn engendered the intention of employees to quit the company. It is recommended that depression, anxiety and irritation should be treated as diseases; hence, the need to train managers and supervisors on mental health care practices and efficient and effective human resource management practices in order to cater for the needs of employees in a more equitable way. Other recommendations include liaising with professionals to offer therapy and subjecting sufferers to rehabilitation.

**Key Words:** Perceived injustice, Work-related depression, Work-related anxiety, Work-related irritation, Intention to leave

**JEL Classification: D23**

## **1. INTRODUCTION**

The high costs to companies associated with the effects and treatment of depression, anxiety and irritation have placed these variables in the research domain in recent years (Muschalla, Linden & Olbrich, 2010; Andrea, Bültmann, Beurskens, Swaen, Van Schayck, Kant, 2004). Shani and Pizam (2009) predict that depression, being one of the most severe health problems worldwide, will be the second most common disease by 2020. Empirical evidence indicates that depression and anxiety are the largest causes of absences in the workplace with dire cost consequences for companies (Bhui, Dinos, Stansfeld & White, 2012; Netterstrøm, Conrad, Bech, Fink, Olsen, Rugulies & Stansfeld, 2008). Ylipaavalniemi, Kivimäki, Elovainio, Virtanen, Keltikangas-Järvinen and Vahtera (2005) cite the following as direct costs to companies: hospitalisation, primary care, outpatient care, pharmaceuticals and rehabilitation.

Fujishiro and Heaney (2009) highlight that the influence of organisational injustice on employee health has recently gained attention among researchers in various disciplines including public health (epidemiology and health behaviour), industrial psychology, organisational psychology, social psychology, organisational behaviour and human resources. Netterstrøm et al. (2008) further acknowledge that research on the relationship between depression and work-related antecedents has been found to be very scarce while specific research on depression and organisational injustice has similarly been confirmed scant (Ylipaavalniemi et al., 2005). Research evidence further demonstrates that while the incidences of depression, anxiety and irritation are on the rise, the causes of these constructs in the workplace are not properly understood (Melchior, Caspi, Milne, Danese, Poulton & Moffitt, 2007). To fill the void, the current study seeks to establish the relationship between perceived injustice, depression, anxiety, irritation and turnover intention among employees in a manufacturing company in Johannesburg, South Africa.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **2.1 Perceived injustice**

The perception of injustice in the workplace is rooted in the interference with equal access to resources or opportunities and is associated with suffering or loss (Sullivan, Yakobov, Scott & Tait, 2014). Ferris, Spence, Brown and Heller (2012) posit that any organisational decisions or managerial actions that are perceived unfair have a potential of eliciting anger, outrage or hatred. Rafferty, Lloyd, Restubog and Jimmieson (2010) view workplace injustice as a psychosocial

stressor or work-related condition that has a negative impact on the health and well-being of employees. Within the injustice literature, three perceptions of injustice are identified, namely distributive injustice, procedural injustice and interactional injustice (Ferris et al., 2012; Howard & Cordes, 2010).

Distributive injustice exists when there is a “deficiency and misfit between what the environment provides and the person strives for” (Stecher & Rosse, 2007:778). This occurs when employees perceive the rewards they receive as not commensurate with the effort they expend. Injustice also occurs when the ratio of the inputs and outcomes of one employee are not congruent with the comparable other or referent employee (Howard & Cordes, 2010; Stecher & Rosse, 2007).

Fujishiro and Heaney (2009:488) refer to procedural justice as “the extent to which decision-making procedures include input from affected parties, suppress bias, are consistently applied, accurate, correctable, and ethical”. Procedural injustice emanates when, for example, pay and promotion are based on unfair performance processes or appraisal nepotism (O’Neill, Lewis & Carswell, 2011).

The degree of politeness, dignity and respect accorded to employees in the process of dispensing organisational procedures connote interactional impropriety or justice (Rafferty et al., 2010). Ferris et al. (2012) argue that employees consider it unjust if they perceive that their rights are not respected and, consequently, feel more negative about their status in the organisation. Negative relations with superiors, unfair assignment of low-value positions together with vituperation directed to employees elicit feelings of unworthiness (Andiappan & Treviño, 2010).

Siegrist’s (2008) study reveals a positive relationship between organisational injustice and high levels of work-related depression. In another study, the effort-reward imbalance was reported to be the direct cause of mental health problems in the workplace, including symptoms of depression (Shani & Pizam, 2009). In light of these findings, the following hypothesis was formulated:

*H1: There is a significant positive relationship between perceived injustice and work-related depression.*

Empirical evidence indicates that where promotions are based on favouritism or nepotism rather than talent or experience employees tend to suffer from anxiety as they battle to grapple with the repercussions of distributive injustice (Andiappan & Treviño, 2010). As a result, employees are gripped by the sense of unworthiness

and incensed with intense anger as a result of this injustice (Sullivan et al., 2014). In view of these empirical findings, the following hypothesis was postulated:

*H2: There is a significant positive relationship between perceived injustice and work-related anxiety.*

Furthermore, Meier and Semmer (2012) allude that workplace irritation can be explained in the context of Adam's equity theory. In relation to the equity theory, the authors propound that the lack of reciprocity such as unfair distribution of rewards leads to irritation. The mismatch between what an employee invests and what she/he ultimately receives is a source of irritation. Based on this empirical finding, the following hypothesis was posited:

*H3: There is a significant positive relationship between perceived injustice and work-related irritation.*

## **2.2 Work-related depression**

Depression is defined as a "period of intense, often continuous feelings of sadness and hopelessness accompanied by cognitive and somatic symptoms that can require treatment" (Shani & Pizam, 2009:447). The occurrence of such types of feelings as a result of factors in the work environment leads to a phenomenon commonly known as work-related depression. The following factors in the work environment are cited as sources of work-related depression: effort-reward imbalance, unfair decisions about workload and working hours, prevalence of toxic management (tendency of managers to be self-centered, lack of concern toward their employees and having a destructive disposition to control and quarrel) and other unfair managerial practices (De Boer, Lok, Van't Verlaat, Duivenvoorden, Bakker & Smit, 2011).

Work-related depression has a number of negative consequences if it continues unabated. Empirical evidence attests that work-related depression curtails productivity, increases absenteeism exponentially and may precipitate early retirement (Shani & Pizam, 2009). The finding led to the formulation of the following hypothesis:

*H4: There is a significant positive relationship between work-related depression and turnover intention.*

## **2.3 Work-related anxiety**

Work-related anxiety is stimulus-related in the sense that it is associated and is bound to occur in the workplace when negative aspects of work are pondered upon

(Muschalla et al., 2010). Linden and Muschalla (2007) opine that work-related anxiety manifests itself in various forms such as fears of insufficiency, generalised anxiety and hypochondrial anxiety pertaining to work, working conditions, co-workers and superiors.

An array of conditions in the workplace can be sources of anxiety among employees. Demands placed on workers, which lead to overload, can result in a sense of failure and create anxiety (Bhui et al., 2012). Melchior et al. (2007) amplify that if these job demands are considered beyond the capabilities of employees they could lead to stress and possibly engender psychiatric disorder. Other sources of work-related anxiety cited in the wellness literature include rivalry between employees, accidents and working with dangerous substances or in dangerous working conditions (Linden & Muschalla, 2007; Melchior et al., 2007). Bhui et al. (2012) add that job strain, low decision latitude, low social support, high psychological demands, effort-reward imbalance and high job insecurity could engender anxiety.

Research indicates that employees experiencing work related anxiety tend to take sick leave or engage in endemic absenteeism as coping strategies (Melchior et al., 2007). It is also noted that anxiety is the cause of accidents, low employee morale and turnover intention (Haslam, Atkinson, Brown & Haslam, 2005). This latter finding led to the following hypothesis:

*H5: There is a significant positive relationship between work-related anxiety and turnover intention.*

#### **2.4 Work-related irritation**

Work-related irritation is considered as the “subjectively perceived emotional and cognitive strain in occupational contexts” (Mohr, Müller, Rigotti, Aycan & Tschan, 2006:198). Emotional strain connotes irritability, which implies reacting querulously, while cognitive strain refers to ruminations over problems at work. Therefore, irritation is a collective terminology that encapsulates emotional and cognitive strain, which is argued to be a mental impairment (Baethge & Rigotti, 2013).

Work-related irritation may be aggravated by the inconsistencies of rewards distribution between people doing the same work of equal value with the same effort. Meier and Semmer (2012) argue that in the same way that being under-benefitted induces strain, being paid more than one’s real contribution has a huge potential to cause emotional and cognitive strain. In general, occupational stressors are considered notable sources of irritation in the workplace. Other sources of stress

could be social stressors such as when an employee does not have meaningful and positive relations with colleagues and supervisors.

Mohr et al. (2006) indicate that irritation in the workplace is attributed to increased workloads, ineffective recognition of employee performance, performance expectations that are not specified clearly and occupational stress. The incidence of irritation, the authors argue, imbues employees with an intention to leave their current organisation. Hence, the following hypothesis was presupposed:

*H6: There is a significant positive relationship between irritation and turnover intention*

## **2.5 Turnover intention**

Radebe and Dhurup (2015; 2014) consider intention to leave as a purposeful willingness on the part of an employee to sever relations with or membership of a particular organisation. Intention to leave has been associated with employee's engagement with the work, in which case it was found that employees who invested little amounts of time and energy towards an organisation tended not to identify with the organisation. These authors contend that such employees have no commitment to the current organisation and, ultimately, could leave the organisation. MacIntosh and Doherty (2010) caution that the failure to avoid attrition may only serve to increase costs of recruiting, hiring and training of new staff as a result of the departure of more capable and experienced staff.

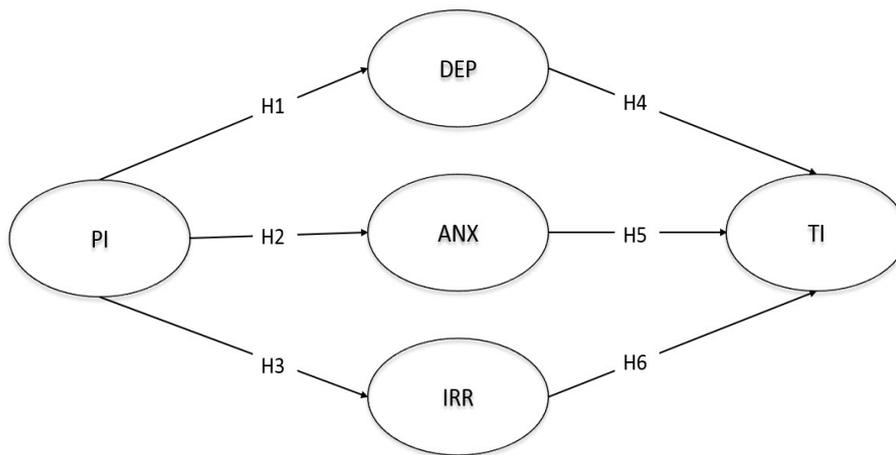
## **3. THE CONCEPTUAL MODEL**

Figure 1 is an illustration of the conceptual model in the study. The model presupposes that a relationship exists between perceived injustice (PI), depression (DEP), anxiety (ANX), irritation (IRR) and turnover intention (TI). In the model, perceived injustice is considered a predictor variable while depression, anxiety and irritation serve as both criterion and predictor variables. Turnover intention is inserted in the model as a dependent variable.

## **4. METHODOLOGY**

A quantitative approach was followed using a survey in which a structured questionnaire was utilised to elicit respondents' opinions on perceived injustice, depression, anxiety, irritation and turnover intention. A survey was considered appropriate for this study because participants would respond to the same standardised set of statements with the likelihood of enhanced reliability.

**Figure 1: Conceptual model**



#### **4.1 Population and sampling**

The study was conducted in a company that manufactures computer server tracks and enclosures, which is located in Johannesburg and the name of which cannot be divulged for ethical reasons. The target population was all employees, irrespective of the number of years in employment in the current company. A non-probability convenience sampling method was used to select participants for the study. The convenience sampling method was deemed suitable because data could be gathered quickly from those employees who were present in a week's period. Structured questionnaires were issued to 250 participants of which 168 were returned and completed, resulting in a response rate of 67 percent.

#### **4.2 Data analysis**

Descriptive statistics was used to analyse the biographic information. The means and standard deviations of the constructs were computed. To test for the accuracy of the conceptual model, rho's correlation and regression analyses were performed. The analyses were meant to establish relationships and predictive associations between constructs. All these statistical analyses were undertaken using Statistical Package for Social Sciences (SPSS), version 24.

#### **4.3 Measures**

The research instrument comprised five sections. Section A aimed at gathering biographical data on gender, number of years in the current position and number of years in the current company. Section B obtained data on perceived injustice. The questionnaire was adopted from Creighton, Jamison, Riebel and Welsh (1994).

Section C elicited responses on work-related depression and Section D and E did the same on work-related anxiety and work-related irritation respectively. The questionnaire statements on sections C-E were adopted from Caplan, Cobb, French, Van Harrison and Pinneau's (1980) research instrument. Section F of the questionnaire garnered respondents' opinions on intention to leave. This questionnaire was adopted from Landau and Hammer (1986).

#### **4.5 Reliability and validity**

The internal consistency of the research instruments was tested by means of Cronbach alpha coefficient. The alpha values for depression ( $\alpha=0.724$ ), anxiety ( $\alpha=0.710$ ), irritation ( $\alpha=0.725$ ) and turnover intention ( $\alpha=0.817$ ) were satisfactory, beyond the threshold of 0.7 (Pietersen & Maree, 2008). Even though the alpha value of perceived injustice was 0.610, this value was considered marginally acceptable (Pallant, 2010). The alpha values are shown in Table 1.

The validity of the measures was tested using content validity, construct validity, convergent validity and predictive validity. With regard to content validity, the research instrument was submitted to two academics specialising in industrial mental health, organisational behaviour and industrial psychology, who both confirmed that the research instrument measured what it purported to measure. Exploratory factor analysis was used, which affirmed that the variables were discrete with no cross-loadings, while the correlation analysis and regression analysis attested for the correlational and predictive associations between the variables respectively.

### **5. RESULTS AND DISCUSSION**

#### **5.1 Results**

##### **Sample composition**

Of the 168 participants in the study 51% (n=86) of respondents were female while male respondents constituted 49% (n=82) of the sample. Many (48 %; n=81) of the respondents had the work experience of between two and five years in the current position. Employees that had between five and ten years of service in the current position constituted 19% (n=32) of the sample size and those with an experience of above 15 years in the current position made 5% (n=8) of the units of analysis. Respondents with less than one year of experience in their current position comprised 28% (n=47) of the population. In respect of the number of years in the current company, the statistics were as follows: less than a year (29%; n=49);

between 2 and 5 years (44%; n=74); between 5 and 10 (20%; n=33); and above 15 years (7%; n=12).

**Correlations**

Spearman’s rho correlation analysis was used to test the strength and direction of relationships between the constructs. The use of a non-probability convenience sampling technique has a huge potential to skew data to either side from the midpoint thus falling short of normality. For this reason, a non-parametric test such as Spearman’s rho correlation was conceived suitable for the analysis.

The correlation results reported in Table 1 indicate strong correlations between depression and irritation (r=0.460; p<0.01); irritation and turnover intention (r=0.436; p<0.01). Moderate correlations were observed between perceived injustice and depression (r=0.332; p<0.01); depression and turnover intention (r=0.331; p<0.01).

**Table 1: Correlations, means, standard deviations and alpha values**

Constructs	PI	DEP	ANX	IRR	TI	Mean	SD	Alpha values
Perceived injustice (PI)	1					2.198	0.663	0.610
Depression (DEP)	.332**	1				2.188	0.714	0.724
Anxiety (ANX)	.117	.071	1			2.240	0.748	0.710
Irritation (IRR)	.224**	.460**	.115	1		2.522	0.714	0.725
Turnover intention (TI)	.163*	.331**	.117	.436**	1	2.031	0.746	0.817

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Statistically significant but weak correlations were noted between perceived injustice and irritation (r=0.224; p<0.01); perceived injustice and turnover intention (r=0.163; p<0.05). Very weak correlations existed between perceived injustice and anxiety (r=0.117; p>0.05); anxiety and irritation (r=0.115; p>0.05); anxiety and turnover intention (r=0.117; p>0.05).

### Regression analysis

The performance of the regression analysis resulted in six models as reported in Table 2. In models 1, 2 and 3 perceived injustice was entered as the predictor variable, whereas depression, anxiety and irritation were computed as dependent variables. In contrast, for models 4, 5 and 6 depression, anxiety and irritation became independent variables, while turnover intention assumed the role of a criterion variable.

**Table 2: Regression analysis**

Models (Constant)	Unstandardised coefficients		Standardised coefficients		
	B	Std. Error	Beta	T	Sig
1. Perceived injustice (Independent variable)	0.347	0.079	0.322	4.385	.000*
Dependent variable: Depression; <i>Adjusted R Square=0.098; df=1; F=19.224</i>					
2. Perceived injustice (Independent variable)	0.126	0.083	0.117	1.153	.132
Dependent variable: Anxiety; <i>Adjusted R Square=0.008; df=1; F=2.290</i>					
3. Perceived injustice (Independent variable)	0.253	0.085	0.224	2.967	.003*
Dependent variable: Irritation; <i>Adjusted R Square=0.045; df=1; F=8.803</i>					
4. Depression (Independent variable)	0.346	0.077	0.331	4.517	.000*
Dependent variable: Turnover intention; <i>Adjusted R Square=0.104; df=1; F=4.517</i>					
5. Anxiety (Independent variable)	0.117	0.077	0.117	1.523	.130
Dependent variable: Turnover intention; <i>Adjusted R Square=0.008; df=1; F=2.319</i>					
6. Irritation (Independent variable)	0.445	0.073	0.436	6.234	.000*
Dependent variable: Turnover intention; <i>Adjusted R Square=0.185; df=1; F=6.</i>					

In model 1, the regression values for the predictive relationship between perceived injustice and depression were analysed. The results show statistical significance ( $\beta=0.322$ ;  $p<0.05$ ) for the aforementioned relationship. Other regression values for the remaining predictive associations between variables were recorded as follows: model 2 – perceived injustice and anxiety ( $\beta=0.117$ ;  $p>0.05$ ); model 3 – perceived

injustice and irritation ( $\beta=0.224$ ;  $p<0.05$ ); model 4 – depression and turnover intention ( $\beta=0.331$ ;  $p<0.01$ ); model 5 – anxiety and turnover intention ( $\beta=0.117$ ;  $p>0.05$ ); model 6 – irritation and turnover intention ( $\beta=0.436$ ;  $p<0.05$ ). The adjusted R square were reflected as follows: model 1 – 0.098; model 2 – 0.008; model 3 – 0.045; model 4 – 0.104; model 5 – 0.008; and model 6 – 0.185.

## 5.2 Discussion

The correlation results in Table 1 indicate that there was a relationship between perceived injustice and depression. Further, results in Table 2 show that perceived injustice contributed 10 percent to the occurrence of depression. The beta and significance values confirmed that perceived injustice was a predictor of depression. These findings led to the acceptance of the hypothesis, *there is a positive significant relationship between perceived injustice and depression (H1)*. The finding is corroborated by the study of Netterstrøm et al. (2008), which affirmed that perceived injustice in the workplace tends to predict employees' overall health, sickness and absence. Perceived injustice was also found to engender psychiatric disorders. Manocha, Black, Sarris and Stough (2011) emphasise that perceived injustice by the supervisor is prone to increase the incidence of depression more than organisational policies, practices and procedures. This is not to discount treatment issues as important to employees' perceptions of unfairness in the workplace.

The findings in Table 1 and Table 2 highlight that there was no significant positive relationship between perceived injustice and anxiety. It was also noted from the regression values that perceived injustice was a weak predictor of anxiety ( $p>0.05$ ). In view of the lack of positive correlation between perceived injustice and anxiety, the hypothesis, *there is a positive significant relationship between perceived injustice and anxiety (H2)* was not supported. This is inconsistent with the finding of Fujishiro and Heaney (2009), which seems to suggest that perceived injustice, in the form of unjust appraisals, tends to ignite anger among employees. The authors postulate that unjust performance appraisals are associated with intense emotional responses such as depression and anxiety.

The results illustrate that perceived injustice was related positively with irritation and the regression values demonstrate that perceived injustice is a significant predictor ( $p<0.05$ ) and accounted 5 percent for the occurrence of irritation among employees. Based on these findings, the hypothesis, *there is a positive significant relationship between perceived injustice and irritation (H3)* was accepted. Previous empirical evidence supports the finding that unfair treatment, especially unjust appraisals, triggers emotional distress (Sullivan et al., 2014). These authors further

advance that irritated employees have shorter concentration spans, cannot think properly and process information well, do not have time management skills and cannot contribute effectively to a group.

On the relationship between depression and turnover, a significant positive relationship was observed. Moreover, depression seemed to be a significant predictor ( $p < 0.05$ ) of turnover intention, contributing 10 percent to the occurrence of turnover intention. Thus, the hypothesis *there is a positive significant relationship between depression and turnover intention (H4)* was accepted. This is consistent with the finding that depression often leads to anger and exacerbated sickness. Sick employees often take time off to seek medical help and mainly desire to quit their jobs. To deal with their problems, these employees engage in drinking as an escape (Howard & Cordes, 2010).

A positive correlation between anxiety and turnover intention was non-existent. Additionally, through regression analysis, anxiety does not seem to be a strong predictor to turnover intention ( $p > 0.05$ ). In light of the findings, the hypothesis *there is a positive significant relationship between anxiety and turnover intention (H5)* was rejected. Contrary to the finding, Stecher and Rosse (2007) affirm that employees express anxiety by reducing work effort and being incessantly absent from work. The authors contend these employees develop intentions to quit their organisations and become involved in the acts of theft.

Finally, a significant correlation between irritation and turnover intention existed and the results of the regression analysis corroborate with these findings that irritation is a significant predictor ( $p < 0.05$ ) of turnover intention. Irritation contributed 19 percent to the incidence of turnover intention. In view of the findings, the hypothesis *there is a positive significant relationship between irritation and turnover intention (H6)* was supported. This finding finds empirical support from the Bjelland, Krokstad, Mykletun, Dahl, Tell and Tambs (2008) who propound that employees who perceive inequity in the workplace prefer to escape psychologically from the problems through absenteeism and work alienation. These employees tend to be irritated, withdraw or withhold effort and, ultimately, develop turnover intentions.

## **6. LIMITATIONS OF THE STUDY AND FUTURE RESEARCH POSSIBILITIES**

One of the limitations of this study is the use of a self-reported questionnaire. Respondents' feedback could have been biased depending on the circumstances at the time they filled out the questionnaires. The use of non-probability sampling

method limited the generalisation of the findings to the entire target population. The sample size was limited to 168 employees. A larger sample size is warranted, which may have yielded somewhat different results.

This study was a cross-sectional survey, which aimed to elicit respondents' opinions at a particular point in time. A longitudinal study could provide a more accurate picture over a period of time. Further research in this area could be the analysis of the role of biographic factors in the relationship between constructs. Research attempts could also revolve around the control of certain biographical factors in the relationship between variables. The use of structural equation modelling to account for both direct and indirect effects of the relationship between variables is another research option.

## **7. RECOMMENDATIONS**

Negative repercussions of inequity in the workplace can be addressed by training managers and supervisors on efficient and effective human resource management practices in order to cater for the needs of employees in a more equitable way. This training could aid in improving working conditions to make them more pleasant and desirable. Other ways of improving justice perception in the workplace could be developing fair personality screening selection system and revising organisational policies to comply with principles of procedural fairness.

Reduction of the levels of depression, anxiety and irritation could encapsulate training of managers and supervisors on mental health care practices. Training on health issues ensures recognition of anxiety and depression as genuine illnesses and is considered the pivotal measure in dealing with mental health problems in the workplace.

It is imperative for organisations to liaise with professionals in the field of industrial mental health to provide invaluable assistance in the reduction of levels of depression, anxiety and irritation. Professionals could assist in therapeutic practices for as little as two hours a day over four to six weeks. The professionals could also prescribe relevant medication to deal with the rampant effects of depression, anxiety and irritation. Methods of rehabilitation, which could include phased returns to work, are viable options to tackle the illnesses.

## **8. CONCLUSION**

In the study, it was apparent that employees perceived their treatment in the workplace to be characterised by organisational justice. Employees also confirmed that they were not depressed and did not suffer from anxiety or irritation. Generally,

the relationship existed between perceived injustice, depression, irritation and turnover intention. However, there was no relationship between anxiety, perceived intention and turnover intention. These findings led to the partial acceptance of the preconfigured conceptual model because anxiety showed no positive significant relationship with perceived injustice and turnover intention.

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