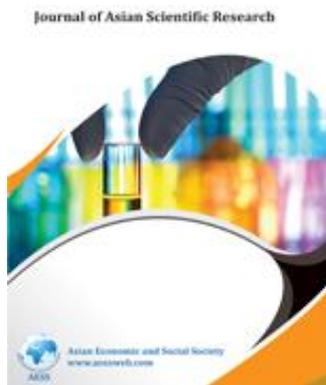


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**Effect of Psychological Work Climate and Emotional Intelligence on Teamwork**

**Owolabi A. B** (Department of Psychology, University of Ado-Ekiti, Nigeria)

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**Author (s)**

**Owolabi A. B**

Department Of Psychology  
University Of Ado-Ekiti, Nigeria.  
E-mail: [labdem2005@yahoo.ca](mailto:labdem2005@yahoo.ca)

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**Abstract**

This study examined the effect of psychological work climate and emotional intelligence on teamwork among Nigerian workers. One hundred and sixty participants were drawn from the University Teaching Hospital in Ado-Ekiti. The participants were made up of 65 males and 95 females. The Index of Organizational Reaction Scale (IOR), Work Group Function Scale (WGFS) and Trait Emotional Intelligence Questionnaire (TEIQ) were used to gather data from the participants. Four hypotheses were tested, it was established that psychological work climate and emotional intelligence has an effect on teamwork. For effective teamwork to be achieved at the work place emotional intelligence is to be developed and a favorable psychological work climate created.

**Key words:** Work Climate, Emotional Intelligence, Teamwork, Productivity, Psychological Safety, Psychological Meaningfulness.

**Introduction**

One of the greatest challenges confronting leaders in various organisations today is how to develop a team spirit in their workforce, because teamwork is important to a productive and healthy work environment. Teamwork is defined by Webster's New Dictionary as a joint action by a group of people in which each person subordinate his or her individual interest and opinion to the unity and efficiency of the group. Teamwork required that team members function as a team rather than going in separate direction. Teamwork has become an important part of organizational working culture to the extent that organizations now make teamwork skill part of the necessity for employment.

Over the last couple of decades a significant number of organisations have restructured their operations around workgroups or teams to take advantage of the performance potential teams are able to produce (Beyerlein, Johnson and Beyerlein 1997). There is a general agreement that the introduction of teams contributes to improved performance (Wheelan, 1999)

In a comprehensive review of the team effectiveness literature, Tannenbaum, Beard and Salas (1992) argue that team performance is not only predicated on organisational and situational contextual characteristics (e.g. organisational climate, reward systems) and effective team processes (e.g. coordination, communication, conflict resolution), but also on effective input characteristics (individual characteristics, work structure, team characteristics, task characteristics) and the interaction between these characteristics. They also argue that the various input characteristics all impact on team processes (Wheelan 1999).

A work environment that develops the relationship between workers and not tears them apart through competition is important for developing bond both professionally and personally, which in turn influences their seal to work harder to achieve success for the group. Teamwork means cooperative work done by a team. How individuals view their environment has an effect on how they behave. Understanding one's environment influences the development of a bonding relationship with others. In the organization, if there is no warmth in the environment, workers might not

be able to relate the way they should to enhance their work. Likewise, if individual workers do not understand others and on the basis of this understanding know how to relate with themselves, it may be hard to build a strong working group. Workers in an organization also tend to react differently to the same environmental conditions depending on their sensitivity and interpersonal skills which in turn have effect on how they react to their job and co-workers.

Lewin's (1951) argument that behaviour is a function of the psychological environment. That is, an interaction between the person and his environment. Boyatz's (1992) using Lewin's theory in his model asserts that effective performance is the interaction of individual competencies, job demand and organisational climate. Brown and Leigh (1996) developed an alternative definition of organisational climate as psychological climate.

The aim of this paper is to address how the psychological climate perceived by the employee and the prevailing level of emotional intelligence contribute to teamwork.

Psychological work climate is defined as being a multidimensional construct representing shared individual perception (Koys and DeCotis, 1991) that are relatively homogenous, persistent and stable over time (Moran and Volkwein, 1992). Psychological climate guides behavior with the aim of meeting organizational objectives and is a set of perceptions that describes experience as opposed to being an affective reaction, as in the case with job satisfaction (Koys and DeCotis, 1991).

Psychological work climate can also be referred to as organizational climate or corporate climate. It is the process of quantifying the "culture" of an organization. It is a major factor in the organization, which entails how workers view their work environment which in turn influences their behavior at work.

The climate of an organization can be described as the culture of such organization

and this culture tends to be passed on from the older generation of workers to the new ones, the organization here stands as the social group. The climate is like a combination or aggregate of psychological climate, that is, the concept at the individual level is the psychological climate, while at the group level, team level or functional level, it is the organizational climate. The concept of psychological work climate influences a lot of factors at work which include stress, morale, and quality of work life, wellbeing, employee engagement, absenteeism, turnover and performance.

Psychological work climate can be understood to be the perceptions of the outward features of an organization's culture, that is, employees' perceptions and attitudes toward their organization at a given time. A good psychological work climate improves the efficiency of an organization. Psychological work climate can therefore be said to be dependent on the emotions and perceptions of workers in the organization.

There are two important elements of psychological work climate as proposed by Khan (1990) that enhance productivity and motivate employee, this include the meaningfulness and safety dimensions. Khan (1990) defined psychological meaningfulness as a feeling that one is receiving a return of investments of oneself in a currency of physical cognitive or emotional energy. Dimensions of psychological meaningfulness include the extent to which employee feel that (1) they make significant contribution towards achievement of organizational goal, (2) that the organization adequately recognize their contribution and their work is challenging and conducive to personal growth. Employees experience their work as meaningful when they perceived it to be challenging, worthwhile and rewarding. While psychological safety is defined as employee sense of being able to show and express oneself without fear of negative consequences to self image, status or career. Dimension of psychological safety as defined by Khan (1990) include (1) the extent to which management is perceived as flexible and supportive, (2) employee's feeling that they have control over their work and the

method employed, (3) that organizational rules and norms are perceived as clear and (4) that employee feel free to express their true feeling.

The concept of emotional intelligence and its impact on team work is relatively new (Luca and Tarricone, 2001). Salovey and Mayer (1990) initially conceived the concept and coined the term emotional intelligence, which was derived from Gardener's (1993) theory of multiple intelligences. Gardener's (1983) defined emotional intelligence as the level of one's ability to understand other people, what motivates them and how to work cooperatively with them. The major characteristics believed to be part of emotional intelligence include; self awareness- ability to understand and interpret one's feelings through internal reflection, self regulation- ability to use emotions to facilitate the progress of the task or the project, being able to regulate emotions especially during conflict, pressure and deadlines, facilitates the smooth progress of the project and promote positive working relationship, motivation- successful teamwork requires intrinsic motivation persistent and vision, being able to motivate fellow team members into contributing their best, empathy-ability to understand and interpret colleagues feelings and been able to identify with their feelings through understanding their perspective and cultivating rapport with people from different work of life, social skill- it is essential for the development of positive, effective relationships with colleagues and the ability to interact with team members to deter conflict.

Emotional intelligence relates to how good one is at communicating, understanding an relating with those around you. It can be argued that if you can improve your level of emotional intelligence, you will be able to work more effectively with those who you may not like or get along with. Emotional intelligence could also help one to be successful in all aspects of life. Emotional intelligence is an area of cognitive ability involving traits and social skills that facilitate interpersonal behavior. It focuses on the aspects of intelligence that govern self-knowledge and social adaptation.

According to Goleman (1995) emotional intelligence is the largest single predictor of success in the work place. Academically oriented skills such as mathematical ability are evaluated in an Intelligence Quotient (IQ) test, where an Emotional Intelligence (EQ) test focuses more on the individual's capacity to deal effectively with others. Goleman (1995) describes emotional intelligence as "managing feelings so that they are expressed appropriately and effectively, enabling people to work together smoothly towards their common goals.

Panagoitis (2009) conducted a research on the relationship between emotional intelligence and transformational leadership of supervisors and its impact on team effectiveness. The subjects in the study were 267 managers working at different hierarchical levels, and questionnaires and structural interviews were used to obtain data. The findings showed that emotional intelligence components such as social skills, motivation, and empathy are positively associated with transformational leadership, thereby influencing team effectiveness with subordinates.

Lopes, Grewal, Kadis and Salovey (2006) studied the relationship between emotional intelligence and performance alongside positive workplace using 5000 English speaking people from various nations. It was observed that emotionally intelligent people had better peer and interpersonal facilitation and stress tolerance. The research showed that emotional intelligence contributes to people's capacity to work effectively in teams and manage work stress. The study also revealed that emotional intelligence was related to interpersonal sensitivity, sociability and contribution to a positive work environment.

### **Hypothesis**

1. There will be a significant effect of psychological work climate on teamwork.
2. There will be a significant effect of emotional intelligence on teamwork.
3. There will be a significant sex difference on teamwork, psychological work climate and emotional intelligence.
4. There will be a significant relationship between the level of emotional

intelligence and the psychological work climate.

## **Methods**

### **Participants**

A total of one hundred and sixty participants were used for the study. The participants used in this study were drawn from workers in the University Teaching Hospital, Ado-Ekiti. Sixty-five of them were males while ninety-five of them were females. Their tenure or length of service in the organization ranges from 2 months to 35 years, while their educational qualification ranges from Senior Secondary School Certificate to Masters Degree. The age range of the participants is between 20 and 60 years.

### **Measures**

Psychological work climate was measured using Index of Organisational Reaction developed by Spector (1975). Its purpose is to measure the reaction of workers to existing climate. The questionnaire is designed to assess specific aspects of job satisfaction in work organizations, and the reciprocal impact of the worker on the environment of the work setting. A coefficient alpha of .88 was reported by Spector (1975) for a sample of 50 medical employees. Spector (1975) obtained construct validity co-efficient of .59 by correlating one of the constructs in the instrument.

Teamwork was measured using Work Group Functioning Scale developed Seashore, Lawler, Mirvic and Camman (1982). The purpose of this instrument is to measure the social psychological process in work environment, attitudes and perceptions of employees to work and group dynamics in work organizations. The scale consists of 14 items and it is made up of 5 subscales which are: Group Homogeneity, Group Goal Clarity, Cohesiveness, Open Group Process, and Internal Fragmentation

Seashore et al (1982) provided the original psychometric properties for American samples while Omoluabi (1997) provided properties for Nigerian samples. The internal consistence alpha coefficient reported by Seashore et al

(1982) are: Group homogeneity .62 Group goal clarity .61 Group cohesiveness .64 Open group process .72

Internal fragmentation .79. Seashore et al (1982) obtained the following concurrent validity coefficients by correlating WGFS subscales with overall job satisfaction. Group homogeneity .13 Group goal clarity .37 Group cohesiveness .48 Open group process .43 Internal fragmentation .37

Emotional intelligence was measured using Trait Emotional Intelligence Questionnaire developed by Petrides and Furnham (2003). The scale is designed to measure global trait emotional intelligence (Trait EI). There are 30 items in this questionnaire and it is based on the long form of TEIQue developed by Petrides and Furnham (2003). The items are responded to on a 7-point Likert scale. Petrides (2009) provided in one study of 1,119,445 men which showed that most items had good discrimination and threshold parameters, and can be prescribed across most of the latent trait range. In a second study of 866,432 men, item response theory (IRT) technique was used to replicate the first study and the instrument showed good psychometric properties at the item and global level.

### **Procedure**

The questionnaires were administered with the help of some employees in the various departments of the University Teaching Hospital Ado-Ekiti and it was passed across to other members of the department for completion. These employees have received sufficient training as research assistants The questionnaires were obtained after completion.

### **Statistical method**

The statistical methods used for the data obtained in this study were Independent t-test to test the effect of psychological work climate on teamwork, the effect of emotional intelligence on teamwork, and the difference between male and female employees on emotional intelligence, psychological work climate and teamwork. Pearson Product Moment Correlation was used to test the degree of relationship between emotional intelligence and psychological work climate.

## **Results**

The data obtained from this study was subjected to statistical analysis using Pearson Product Moment Correlation and independent t-test. The following results were obtained for the various hypotheses.

Hypothesis one which states that there will be a significant effect of psychological work climate on teamwork was tested using the independent t-test. The result is presented in the table below.

Insert table 1 here

From the table above, it can be observed that there is a significant effect of psychological work climate on teamwork,  $t(158) = -3.56, P < .05$ . The mean score reveals that employees who perceived the climate favourable demonstrate greater team work than those who perceived the climate as unfavourable.

Hypothesis two which states that there will be a significant effect of emotional intelligence on teamwork was tested using independent t-test. The result is presented in the table below.

Insert table 2 here

From the table above, it can be observed that there is a significant effect of emotional intelligence on teamwork,  $t(158) = 3.41, P < .05$ . The mean table reveals that those who are high on emotional intelligence exhibit greater teamwork than those that are low on emotional intelligence.

Hypothesis three which states that will a significantly sex differences on Emotional Intelligence, Psychological Work Climate and teamwork was tested using independent t-test. The result is presented in the table below.

Insert table 3 here

The above result shows that there is a significant effect of sex on Emotional Intelligence  $t(158) = 2.03, P < .05$ . The mean scores show that males are higher on emotional intelligence than female. There is no significant effect of sex on Psychological Work Climate  $t(158) = -1.02, P > .05$ . This means that there is no significant difference between male and female in the perception of psychological climate.

Hypothesis four which states that there will be a significant relationship between Emotional Intelligence and Psychological Work Climate was tested using Pearson Product Moment Correlation. The result is presented in the table below.

Insert table 4 here

There is a significant relationship between Emotional Intelligence and Psychological Work climate,  $r(158) = -.38, P < .05$ .

## **Discussion**

The primary objective of this study was to examine the effect of psychological work climate and emotional intelligence on teamwork.

The first hypothesis stated that there will be a significant effect of psychological work climate on teamwork. According to the result tested, it showed that there is a significant effect of psychological work climate on teamwork. The concept of psychological work climate involves autonomy, trust, pressure, cohesion, support, recognition, fairness and innovation and work group. Our working environment affects our sense of well-being, health and motivation to even go to work. It is both the responsibility of employers and in her interest to ensure that employee works in a positive atmosphere because conditions at work can either maximize or minimize productivity and cause or prevent stress and fatigue.

In a questionnaire survey study of architects in project design teams in Beijing, Shanghai and Qingdao based on personal construct theory by Zhikun and Fungfai (2010). They observed that interpersonal trust is an important factor that affects the performance of the design team in a construction project. To improve the team's performance, factors affecting interpersonal trust need to be identified to increase trust between team members. The factors which may affect interpersonal trust were tested using structural equation modeling method; the two factors tested were social interaction and attitude on work. The results suggested that team managers should enhance the social interactions between team members and provide guidance to team members about

the correct attitude on work such that the level of interpersonal trust can be improved.

The second hypothesis stated that there will be a significant effect of emotional intelligence on teamwork. This hypothesis was accepted as the result showed that there is a significant effect of emotional intelligence on teamwork. Emotional intelligence involves one's ability to understand others and development of mutual trust with other people. A worker would be able to develop good working relationship better with a co-worker that he/she understands and if mutual trust exists between them. Being emotionally intelligent can help keep away unnecessary arguments and non productive behaviors.

Byron Stock (2008) conducted a research that supports this finding. In his research, he found that every worker faces different challenges but experience the same emotion such as anxiety, frustration, and even anger sometimes. The development of emotional intelligence helps them to become internally self-managed. The working environment could be frustrating and characterized with frustration, anxiety; suspicion and resentment, when the workers with their emotional intelligence are able to handle these are able to maintain a positive attitude as they eliminate impediments to team success by improving their own internal motivation.

The third hypothesis stated that there will a significantly sex difference in emotional intelligence and psychological work climate and team work. From the analysis, it was found that male do not significantly differ from females on psychological work climate while they significantly differ from females on emotional intelligence.

Findings about sex difference in psychological climate appear conflicting. Some studies such as Gewertz (1994), Kirschenbaum (1991) and Rodriguez (1993) that address climate related variables in organisational research indicate that women's work experiences are different from male work experiences and that men and women employees perceived and react differently to organisational components of work environment. On the other hand

Westerberg and Armelius (1998) conducted a study where the psychosocial and physical work environments were compared with sex and it was found that there were no differences between men and women in the factors studied. They indicated that the type of activity involved in was more important than biological sex.

In agreement with the findings of this study is the work of Silveri, Tzilos and Pimental and Yurgelun-Todd (2004) were they examined the effect of various factors on emotional intelligence where sex was included and it was observed that notable sex differences were evident in emotional intelligence. Groves (2005) also supports this in his finding from the study of 433 leaders in an organization. It was observed that female leaders scored higher on social and emotional skills. It was suggested that females possess significantly better interpersonal abilities than men.

The fourth hypothesis stated that there would be a significant relationship between emotional intelligence and psychological work climate and the result from the analysis showed that there is a significant relationship between emotional intelligence and psychological work climate, therefore, the hypothesis was accepted. The emotional state of workers influences how they relate at work and therefore determines what kind of climate would exist at the work place.

The findings of Paulo N. Lopes and Daisy Grewal (University of Surrey), 2010 support this result. Their finding stated that emotional intelligence is related peer-related indicators of interpersonal facilitation and interpersonal sensitivity, sociability and contribution to a positive work environment. They also stated that emotional intelligence is related to sociability, liking which also facilitates positive work environment.

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**Table-1** An Independent t-test table showing the effect of psychological work climate on teamwork.

Variable	N	X	SD	SE	Df	T	P
Favourable	61	24.91	3.45	0.42	158	-3.56	<.05
Unfavourable	99	20.53	2.47	0.25			

**Table-2** An Independent t-test showing the effect of Emotional Intelligence on teamwork.

Variable	N	X	SD	SE	Df	T	P
High	94	26.50	2.51	0.25	158	3.41	<.05
Low	66	20.95	3.21	0.41			

**Table-3** Independent t-test table showing the difference between male and female on emotional intelligence, psychological work climate and teamwork.

	Variable	N	X	SD	SE	df	T	P	Remark
Emotional Intelligence	Male	65	151.68	20.15	2.50	158	2.03	<.05	
	Female	95	144.33	23.98	2.46				S
Psychological work climate	Male	65	76.01	21.16	2.62	158	-1.04	>.05	
	Female	95	80.10	26.26	2.69				NS

**Table-4** Pearson Product Moment Correlation table showing the relationship between Emotional Intelligence and Psychological Work Climate.

Variable	N	X	SE	Df	R	P	Remark
PWC	160	78.44	24.33	158	-0.38	<.05	
EI	160	147.31	22.73				S