

The relationship between transformational leadership and job satisfaction in selected colleges at King Khalid University, Abha, Saudi Arabia

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Abstract

Background Leadership has become the key issues in managing the organization, the emerging business and economic environments have forced organizations to be flexible, adaptive, entrepreneurial and innovative to meet changing demand of the present-day business environment. The purpose of the present study is to examine the relationship between the various dimensions of transformational leadership (predictor variable) and their effects on employees' job satisfaction (criterion variable) in three selected Colleges (Medicine, Dentistry and Science) in King Khalid University. Methods The methodology employed in this study was a quantitative and cross-sectional correlational survey type of design Data collection was done using a questionnaire design that was directly administered to the participants. 250 questionnaires were sent to the participating three colleges (Medicine, Dentistry and Sciences). Results The findings of the multiple linear regression analysis indicated a weak positive association between transformational leadership behaviour and employees' job satisfaction (R-value 0.386). The multiple linear regression analysis signifies a weak positive correlation between transformational leadership behaviour and job satisfaction (R-value 0.386). A p-value in Spearman's rho that is less than the 0.05 level of significance indicated that there is a significant level of relationship which exists between transformational leadership behaviour and job satisfaction. Conclusions This study concluded that transformational leadership behaviour and its four dimensions showed a weak positive correlation with a statistically significant level of relationship between transformational leadership behaviour and employees' job satisfaction among three selected colleges (Medicine, Dentistry and Sciences) in King Khalid University, Abha, Saudi Arabia.

Background

The advent of globalization has brought in its significant wake change in the world, creating a global village in this regard [1]. Further, globalisation may be an element fuelling constant change in organisations. In adapting to these changes, organizations encounter lots of challenges to meet their objectives. To achieve a competitive advantage, organizations need a workforce that is committed, creative, innovative, and are imitable [2].

Educational sector is dependent on the services and competences of employees (Lecturers), an ability that help students to acquire information, knowledge for their development [3-5]. The management of organizations which is the first contact leader in each department in the educational sector is the co-ordinator and manager of the employees and directly influences the quality of work in the department [6-8]. The management act as a guide, motivator, coach, mentor, enabler, spokesperson, deep listener, syllabus and system designer, etc. to the staff of the department [3,9-11].

Leaders need to be able to persuade employees, and employees need to be able to take the direction they are being influenced through their own choices. A leader who is transformational in nature manages staff through the fundamental principles of idealize influence, inspirational motivation, individualized consideration and intellectual stimulation [12]. Transformational leaders intellectually motivate followers,

and thus encourage rationality, problem-solving skills, offer individualized consideration to the employees and equally attending to employees' individual needs for growth and development. Transformational leadership is often being defined and described as a process of motivating change and endowing employees to improve themselves and their organization, and it encourages employees to be accountable and accept responsibility [13].

Locke (1978)[14] defined job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job and job experience" [15,16]. Scholars have also Study job satisfaction extensively in the past decades [17]. It is seen as the most important factor that influences employees to be committed, motivated and loyal towards their job and effectively participates in achieving the organization's overall goals [18]. The relationship between job satisfaction and dissatisfaction depends on what one expects and get from one's job. Regarding teachers, job satisfaction is meeting their needs and improving performance. Therefore, the importance of job satisfaction for productive activities in the University as well as for the growth of the educational sector in the world cannot be underestimated [5]. There are several factors which influence if employees will be satisfied with his or her job. Some of these factors are (a) effective management leadership, (b) adequate compensation for the job performed, (c) employees' empowerment, (d) a working environment that fosters teamwork, [19,20].

The present study is to examine the relationship between transformational leadership and employees' job satisfaction in selected colleges in King Khalid University. This present study examines the relationship between transformational leadership and job satisfaction in a tertiary institution. Specifically, the study seeks to determine if there is a relationship between transformational leadership and job satisfaction in selected colleges at King Khalid University, Abha, Saudi Arabia. Similar studies have been carried out in organizational context including higher institutions in Western and non-Western countries [3, 5 21, 22], but little is known about Saudi Arabia higher educational sector regarding the relationship between transformational leadership and job satisfaction. This present study will rely on data collected from selected colleges in Saudi Arabia based institution, King Khalid University (KKU), Abha, Saudi Arabia.

Leadership is crucial because a good leader builds effective relationships with stakeholders, thereby facilitating required organizational changes with minimal confrontation [23]. Good leaders can stimulate and encourage followers in a way that also results in a high degree of satisfaction, organizational citizenship and commitment [24]. Job satisfaction is seen as the degree to which individuals feels either positive or negative towards their works [25]. In an educational context, three general factors affect job satisfaction: (a) psychological factors, such as the teacher's personality, behaviour and attitudes; (b) environmental factors, including the work itself; and (c) demographic factors, such as gender or age [26].

The Research Problem Statement

However, despite substantial management literature in a Western context, there is a definite gap in the literature on the Middle East, especially on the possible relationships between transformational leadership style and employees' job satisfaction [27]. In the Middle East, Saudi Arabia, in particular, is experiencing transformation regarding human resource management such as job security and ensuring

gender equality. Notable reforms highlight a renewed attempt to redefine the roles of women in all vital activities [27].

In contemporary time, tertiary education plays a major role in nations building [5]. Hence, the need to ensure effective behaviour of leaders and employees' job satisfaction. Despite the availability of profound researches relating to these constructs in Saudi Arabia, there is a dearth of knowledge concerning the relationship between transformational leadership and employees' job satisfaction in a tertiary institution [27] in the southern part of Saudi Arabia particularly Abha, where this study was carried out. It is therefore expedient to conduct a quantitative cross-sectional study using a non-probability homogeneous purposive sampling method among different groups in the selected tertiary institution in Saudi Arabia to establish the statistical association. Findings of this research might be of great benefit to the organizational stakeholders by providing a suitable managerial strategy for the institution to ensure effective leadership and employees' job satisfaction.

Research questions

- i. What dimensions of transformational leadership most influence job satisfaction in selected colleges at King Khalid University, Abha, Saudi Arabia?
- ii. What dimensions of transformational leadership least influence job satisfaction in selected colleges at King Khalid University, Abha, Saudi Arabia?
- iii. What is the theoretical relationship between transformational leadership and job satisfaction in selected colleges at King Khalid University, Abha, Saudi Arabia?

1.1.1. Research objectives

- i. To determine the aspect of transformational leadership that most influence job satisfaction in selected colleges at King Khalid University, Abha, Saudi Arabia.
- ii. To determine the aspect of transformational leadership that least influence employees' job satisfaction in selected colleges at King Khalid University, Abha, Saudi Arabia.
- iii. To determine the theoretical relationship between transformational leadership and employee's job satisfaction in selected colleges at King Khalid University, Abha, Saudi Arabia.

Hypotheses

The hypothesis is derived from previous studies indicating that employees report higher job satisfaction when organizational leaders exhibit transformational leadership behaviour like idealized influence, intellectual stimulation; inspirational motivation, individualized consideration [4, 28].

H01: Idealized influence has less influence on job satisfaction

HA1: Idealized influence has much influence on job satisfaction

H02: Intellectual stimulation has less influence on job satisfaction

HA2: Intellectual stimulation has much influence on job satisfaction

H03: Inspirational motivation has less influence on job satisfaction

HA3: Inspirational motivation has much influence on job satisfaction

H04: Individualized consideration has less influence on job satisfaction

HA4: Individualized consideration has much influence on job satisfaction

H05: There is no theoretical relationship between dimensions of transformational leadership and job satisfaction.

HA5: There is a theoretical relationship between the dimensions of transformational leadership and job satisfaction.

Methods

The methodology employed in this study was a quantitative and cross-sectional correlational survey type of design. Quantitative methodology is used to determine the significant statistical connection between. The quantitative method focuses on examining the relationship between variables. The most appropriate research design is considered to be quantitative since it assists the researcher to satisfy the objective of the study through measurements and statistical analysis. Specifically, a correlational design enables the existence and magnitudes of relationships between specific variables to be quantified [29]. Once variables are quantified, a variety of analysis procedures can be used to specify the associations between them [30]. Hence, for determining whether and which leadership attributes account for differences in employees' job in selected colleges in King Khalid, Abha, Saudi Arabia, a quantitative correlational design is appropriate.

Population and Sample size

Population means the total group of people or objects that constitute scope or meet the criteria of the study. The population of this present study was made up of 250 of the total head count of the teaching staff of the selected colleges in King Khalid University. Due to cost and time, only teaching the staff of the College of Dentistry, Medicine and Science were used in the survey. The questionnaire was administered to both leaders and subordinates. The estimated sample size for this study is based on the total population size of the three selected colleges, which consist of 150 out of the 250 teaching staff of the selected colleges in King Khalid University. Due to cost and time, only teaching the staff of the College of Dentistry, Medicine and Sciences were administered the questionnaires. The best approach to this type

of study is non-probability homogenous purposive sampling because the targeted institution is made up of leaders and employees with similar characteristics.

Method of collecting data

The instrument used to collect data involved a combined measuring instrument made up of two well-recognized instruments, namely; the Multi leadership questionnaire (MLQ) and the Job satisfaction survey questionnaire (JSS) [31]. The instruments were adapted and modified to suit the context of the present study. The MLQ is suitable for this study due to its rigorous development and simple interpretation. The JSS [31] was chosen as it measures job satisfaction, and it impacts the level of job satisfaction by the literature review. Congruency exists between the instrument and theoretical literature.

The importance of this method is that it is convenient in a suitable and cost-effective way of providing information on a large group of people. The measurement of a wider range of behaviour and perceptions from the population size for future use in improving the organizational leadership and job satisfaction will be made possible with the used of these questionnaires.

Measuring Instrument

The theoretical and conceptual framework formed the basis of the research questionnaire. The scale of measurement employed is based on suitable employed well-recognized measurement scales with appropriate consistency scores of Cronbach's alpha for hypothesis testing validity and reliability to be ensured in the development of the questionnaire. Assessments for each of the measurement items were founded on a Likert scale rating to allow the participants the opportunity to choose a specific value for a given option.

The survey instrument consists of three scales of measurement. Section one comprised of the demographic variables such as age, place of employment and years of experience and role in the institution. Section two consisted of 26 questions related to Multifactor leadership questionnaire (MLQ-5X) developed by 30Avolio and Bass (2004). The MLQ-5X form was utilized to evaluate employees' views of their leadership behaviours, and the rater form can be used to measure views of a leader's behaviours. The third section was made up of 36 items measuring job satisfaction, developed by Spector (1985) [31] was utilized to evaluate employees' job satisfaction. Respondents were requested to complete all items using six-point Likert scale ranging from very strongly disagree (1), to strongly agree (6). The questionnaires were distributed to all teaching staff of the selected Colleges of King Khalid University. The questionnaire can take about 15 minutes to complete. The study was conducted in King Khalid University, Abha, Saudi Arabia, with the use of English since the environment is an educated setting where

people speak the English language. Many types of research and peer-reviewed articles have used both instruments.

Reliability and Validity

The goal of any scientific research should be to represent accurate finding with minimum errors, be it whether quantitative or qualitative in nature. This research was founded in the positivist paradigm shift, so reliability was measured as objective and represented as a singular, autonomous truth. Validity is the extent to which a measurement instrument precisely measures the variable under study. To this end, reliability and validity guarantee the research process is error or bias-free and therefore increases the data integrity. Reliability concerns were addressed with the use of well-known measurement scales. For internal consistency of measurement, Cronbach's alpha coefficient was used. Validity can be internal or external validity [32]. Internal validity measures the research procedure and how precise outcomes show the causative relationships between constructs. External validity connotes the degree of which research outcomes can apply to a different setting. In this regard, possible challenges to validity were addressed by conducting a pre-test and a pilot study before the collection of data. The purpose is to scrutinize and to discover any limitation with practical and logical characteristics of the survey instrument. In this regard, correlation analysis was also used to address construct validity.

Another issue in the accuracy of measurement and removal of participants' bias is to reduce common technique variance. Hence, Instructions were written in a simple and clear language. This reduces hindrances to understanding the requisite tasks and to give an accurate answer. Additionally, a Pilot-study was carried out before the main study, and this is to ensure that instructions are unambiguous and concisely given to the participants and if necessary, the survey instrument can be revised. Another possible bias that is likely to happen is social desirability bias where participants might give responses to seem more socially admirable [33]. This study examined management behaviours assessed by subordinates and its attendant effect on subordinates' job satisfaction and, thus, subordinates were sceptical that information might leak to their respective management. In this regard, it was clearly stated in the consent form that confidentiality and anonymity would be kept during and after data collection to minimise anxiety and the social desirability effect.

Pilot-Study

A pilot study was carried out with a small sample taken from the target population. The intent of the pilot study was to decide the suitability of the survey instrument for the prospective participants. In this regard, the feedback on logical coherence and sequence for prospective respondents was more of interest to the researcher. Furthermore, the ease of understanding and the adequacy of the instructions on the research instrument were assessed through a pilot study. The survey instruments were distributed among

chosen participants of twenty employees to test the practical suitability of the survey instrument and were found to be suitable. With regards to this study, the channel of communication with all participants was through a direct visit to the institution. The researcher was introduced to the participants by the contact person in the institution. The survey instrument was a hard copy questionnaire. These questionnaires were manually administered to the participants and scored electronically.

Ethical consideration

Institutional Permission was requested and obtained from the institution under study and approval for this study was given by the Departmental Ethics Committee, University of South Africa (UNISA) before the commencement of the study. The participants were informed of the study; the aim and objectives of the study were clarified to them after that and participants' consent letter was given to each person in this regard. Each participant was asked to complete the questionnaire after the nature and content of the instruments were clearly explained to them. Each questionnaire took approximately 15 minutes to complete. When providing evidence of clear instructions to participants and assuring anonymity, the probability of obtaining biased responses is reduced.

Data Analysis Techniques

Relationship between the constructs was assessed by Spearman rank correlations and based on the data collected from questionnaires inferential statistics used to assess the causality between independent, intermediary and dependent variables. This is to arrive at conclusions and make a prediction about the general population. Statistical software packages for social science (IBM SPSS 20.0) was used in the analysis of data collected. The researcher made use of a paid statistician to help analyse the data. To determine the features of the data set and test the normality of distribution, descriptive statistics were employed. The relationship between the predictor variable and the criterion variable was assessed with correlation. The multiple-regression analysis was utilized to test the hypotheses and analyse the predictive variables to assess the effect that the predictor variables had if any on the criterion variable. Some factors that may affect job satisfaction apart from transformational leadership dimensions in respect to this study were salaries, promotion and co-workers [31]. These factors were treated as intermediary predictive variables in this study and measured by job satisfaction survey (JSS).

Results

Description of the Population and Sample

The sample size of this study was made up of 146 teaching employees of selected colleges in King Khalid University. Three colleges were randomly selected among the entire colleges in King Khalid University to participate in the research study from the database and the recruited respondents selected

based on the inclusion criteria from the sampling frame (see table 1). Inclusion criteria for the sample frame were that employees must be teaching the staff of selected colleges in King Khalid University, Abha, Saudi Arabia. The minimum sample size for the study was 116 based on G*Power 3.1 calculations for a priori with Exact test family, bivariate correlation (Pearson product-moment correlation coefficient), two tails, medium effect, size 0.3, alpha .05, and power .90.

Data collection was done using a questionnaire design that was directly administered to the recruited participants. 250 questionnaires were sent to the participating colleges. From the 250 administered, 146 individuals responded ($n=146$) and resulted in 146 sample size. The response rate was 58.4%. The response is 12% more than the minimum required sample size.

Demographic results

From the 146 respondents in the study, 119 (81.51%) were males, and 27 (18.49%) were females. Majority of the respondents 80 (54.79%) age ranged from 35 to 44 years old. The most frequent age group for the majority is 80 (54.79%) of respondents was 35 to 44-year-old. Majority of the respondents has postgraduate as the highest qualification 137 (93.84%) while 9 (6.16%) are graduates. Most of the respondents, 56 (38.36%) had working experienced between 1 year to 5 years while one person (0.68%) had 20 years and above as working experience. Table 2 and figures 1-5 displays the Demographic profile of study respondents as shown below

Descriptive Statistics

IBM SPSS version 20.0 was the statistical tool used to analyse the data. The four transformational leadership dimensions were measured with multi leadership questionnaire Form. The job satisfaction of teaching staff at King Khalid University was assessed by the use of the Job satisfaction survey scale.

Internal consistency and reliability of the data were established with the use of Cronbach's alpha. Transformational leadership behaviour scale (4 items) overall Cronbach alpha is 0.97, while that of Job satisfaction scale (36 items) is 0.81, which signify a high level of internal consistency for both variables. Reliability coefficients for the transformational leadership scales ranged from .80 to .87. The Cronbach's alpha for Table 3 and 4 presents the reliability coefficients for the four transformational leadership characteristics and the job satisfaction scales. Table 5 shows the descriptive statistics for the transformational leadership scales and job satisfaction scale. The Idealized Influence (ID) has the highest mean score of $54.77 \pm SD 11.7$, while individualized consideration has the lowest mean score of $17.21 \pm SD 4.33$.

Normality of the distribution was assessed with the means of the Kolmogorov Smirnov test. A test with a significance level of $p < .05$ indicates that the data is not normally distributed and in this study,

responses on transformational leadership behaviour were below 0.05 hence contravening the assumption of normality of data. The data for responses to job satisfaction did not contravene the assumption of normality. The results of the Kolmogorov Smirnov test in Table 6 indicate that data from dimensions of leadership behaviour do not follow normal distribution while job satisfaction data follow a normal distribution.

Analysis and Results

Spearman's rank order correlation (Spearman's ρ), a non-parametric analysis, was utilized to analyse the association between transformational leadership and job satisfaction as the data for transformational leadership dimensions significantly deviated from a normal distribution. Spearman's ρ was appropriate to analyse the data because the two variables met the three assumptions required to obtain a valid outcome. The variables are ordinal, observations are paired, and an initial evaluation based on visual inspection of a scatterplot showed a monotonic relationship between the variables. A monotonic relationship is a relationship between two variables. When the value of one variable increases, the other increases (positive correlation), or as the value of one variable increases, the value of the other variable decreases (negative correlation).

The results of Spearman's ρ in Table 7 indicates that all the transformational leadership dimensions have a relationship with job satisfaction with intellectual stimulation having the highest correlation ($R=0.3622$) while the inspirational motivation has the least correlation ($R=0.2934$).

A p-value in Spearman's ρ that is less than the 0.05 level of significance indicated that there is a significant level of relationship which exists between transformational leadership behaviour and job satisfaction. The value of Spearman's correlation coefficient (ρ), can range from -1 to $+1$, indicating a perfect negative association or a positive perfect. The results indicated a weak positive correlation between individual dimensions of transformational leadership and job satisfaction, as shown below (see table 7). Regarding the overall transformational leadership behaviour and job satisfaction, the result shows a weak positive correlation with a statistical significance level of relationship that exists between the two variables (see table 8).

The multiple linear regression analysis signifies a weak positive correlation between transformational leadership behaviour and job satisfaction (R -value 0.386). The results of multiple linear regression analysis are illustrated in table 8 (Predictors: Constant- Transformational Leadership) moreover, (Dependent Variable: Job Satisfaction). R has a value of 0.386 and represents the simple correlation between transformational leadership and job satisfaction. The value $R^2=0.1491$ shows that 14.9% of the variability of the dependent variable, job satisfaction is explained by the independent variable transformational leadership. Although this variability in job satisfaction can be explained by many factors, the model can explain 14.9% of it. To this end, 85.1% cannot be explained by just transformational leadership. Hence, there are other variables that influence job satisfaction.

The results in Table 8 indicate that overall, this research model can statistically significantly predict the dependent variable, job satisfaction while in table 9, p-value shows that the research model is not statistically significance between the dimensions of leadership behaviour and job satisfaction, this could be due to other variables not mentioned in the job satisfaction survey scale.

Hypotheses Testing

The hypotheses were tested on the outcomes of Spearman's rank order correlation analysis to determine the relationship between the transformational leadership dimensions and the job satisfaction of teachers at King Khalid University. The result of the test on hypothesis 1 and hypothesis 2 was found not to have statistically significant correlations between each transformational leadership variable and teachers' job satisfaction. On the other hand, the overall transformational leadership dimensions in combination had statistically significant correlations with overall job satisfaction.

Hypothesis 1

H01: Idealized influence has less influence on job satisfaction

HA1: Idealized influence has much influence on job satisfaction

The outcome of Spearman's rank correlation coefficient revealed a weak positive correlation between idealized influence and job satisfaction of teaching staff in the selected colleges in King Khalid University, Abha, Saudi Arabia, $R=0.3452$, $p=0.0001$. Thus, the null hypothesis is accepted while the alternative hypothesis is rejected.

Hypothesis 2

H02: Intellectual stimulation has less influence on job satisfaction

HA2: Intellectual stimulation has much influence on job satisfaction

The outcome of Spearman's rank correlation coefficient revealed a weak positive correlation between Intellectual stimulation and job satisfaction of teaching staff in the selected colleges in King Khalid University, Abha, Saudi Arabia. Intellectual stimulation had the highest correlation with job satisfaction $R=0.3622$, $p=0.0001$. Thus, the null hypothesis is accepted while the alternative hypothesis is rejected.

Hypothesis 3

H03: Inspirational motivation has less influence on job satisfaction

HA3: Inspirational motivation has much influence on job satisfaction

The outcome of Spearman's rank correlation coefficient revealed a weak positive correlation between Inspirational motivation and job satisfaction of teaching staff in the selected colleges in King Khalid University, Abha, Saudi Arabia, $R=0.3622$, $p=0.0001$. Thus, the null hypothesis is accepted while the alternative hypothesis is rejected.

Hypothesis 4

H04: Individualized consideration has less influence on job satisfaction

HA4: Individualized consideration has much influence on job satisfaction

The outcome of Spearman's rank correlation coefficient revealed a weak positive correlation between individualized consideration and job satisfaction of teaching staff in the selected colleges in King Khalid University, Abha, Saudi Arabia, $R=0.3334$, $p=0.0001$. Thus, the null hypothesis is accepted while the alternative hypothesis is rejected.

Hypothesis 5

H05: There is no theoretical relationship between dimensions of transformational leadership and job satisfaction.

HA5: There is a theoretical relationship between dimensions of transformational leadership and job satisfaction.

The result of the Spearman correlation of the overall transformational leadership behaviour and job satisfaction result shows a weak positive correlation with a statistically significant level of relationship between the two variables about teaching staff in the selected colleges in King Khalid University, Abha, Saudi Arabia, $R=0.3459$, $p=0.0001$. Thus, the null hypothesis is rejected while the alternative hypothesis is accepted.

Discussion

The aim of this quantitative cross-sectional study is to examine the relationship between transformational leadership and job satisfaction in a higher institution. Specifically, the study seeks to determine the relationship between transformational leadership (predictor variables) and job satisfaction

(criterion variable) in selected colleges in King Khalid University, Abha, Saudi Arabia. Similar studies have been carried out in organizational context including higher institutions in Western and non-Western countries [3,5,21,22], but little is known about Saudi Arabia higher educational sector regarding the relationship between transformational leadership and job satisfaction. This present study will rely on data collected from selected colleges in Saudi Arabia based institution, King Khalid University, Abha. Although some previous studies emphasized the positive effects transformational leadership has on job satisfaction [34-42], there is inadequate research on the relationship between transformational leadership and employees' job satisfaction in the selected colleges in KKU, Abha, Saudi Arabia. Based on existing research findings, the purpose of this study is to fill that gap and improve the understanding of transformational leadership and its association with job satisfaction in the educational sector specifically in the selected colleges in KKU.

The participants were drawn from the target population from three (medicine, dentistry and sciences) selected colleges of KKU, Abha, Saudi Arabia and a purposeful sample of 146 respondents participated in this present study. Data were collected for this present study with the use of a combined measuring instrument made up of two well-recognized instruments, namely MLQ and JSQ, which were manually administered. The job satisfaction survey scales were collected with the use of JSQ while transformation leadership behaviours scales were collected with the use of MLQ, which measured transformational leadership and its four dimensions [43]. The results of this present research showed there is a weak positive correlation between individual dimensions of transformational leadership behaviour and job satisfaction (see table 7). Moreover, also the overall transformational leadership behaviour and job satisfaction result show a weak positive correlation with a statistical significance level of relationship that exists between the two variables (see table 8).

The following research questions were examined to determine the association between transformational leadership behaviour and employees' job satisfaction. These include:

Research question 1

What dimensions of transformational leadership most influence job satisfaction in selected colleges at King Khalid University, Abha, Saudi Arabia?

The first research question examined the dimension of transformational leadership that most influence job satisfaction. Result emanating from this research shows that the four dimensions of transformational leadership have a statistically significant level and weak positive relationships with job satisfaction. Idealized influence ($R=0.3452$, $p=0.0001$), inspirational motivation ($R=0.2934$, $p=0.0003$), intellectual stimulation ($R=0.3622$, $p=0.0001$) and individualized consideration ($R=0.3334$, $p=0.0001$). This means that intellectual stimulation ($R=0.3622$, $p=0.0001$) influence employees' job satisfaction most compare to the other four dimensions of transformational leadership behaviour. In this regard, transformational leadership can be seen to have little influence on job satisfaction within the selected colleges at King Khalid University, Abha, Saudi Arabia. This result is in line with 39Mohammad et al. (2011).

Research question 2

What dimensions of transformational leadership least influence job satisfaction in selected colleges at King Khalid University, Abha, Saudi Arabia?

The second research question investigates the dimension of transformational leadership that least influence job satisfaction. Results emanating from this research show that the four dimensions of transformational leadership behaviour have a statistically significant level and weak positive relationships with job satisfaction. Idealized influence ($R=0.3452$, $p=0.0001$), inspirational motivation ($R=0.2934$, $p=0.0003$), intellectual stimulation ($R=0.3622$, $p=0.0001$) and individualized consideration ($R=0.3334$, $p=0.0001$). This means that inspirational motivation least influence employees' job satisfaction amongst the four dimensions of transformational leadership.

Research question 3

What is the theoretical relationship between transformational leadership and job satisfaction in selected colleges at King Khalid University, Abha, Saudi Arabia?

The findings in this present study revealed a weak positive correlation with a statistically significant relationship between transformational leadership dimensions and employees' job satisfaction in three selected colleges at King Khalid University, Abha, Saudi Arabia. These findings are the same to the study carried out by Wang, Chontawan & Natsupawat (2011) [44] found a statistically significant moderate positive correlation ($r = 0.556$, $p < 0.001$) between transformational leadership and job satisfaction of clinical Registered Nurses. The findings of this present studies were also consistent with prior studies which found positive relationship between transformational leadership and employees' job satisfaction [39,45-50].

The findings of the multiple linear regression analysis indicated a weak positive association between transformational leadership behaviour and employees' job satisfaction (R -value 0.386). This is similar to the findings of Rothfelder et al. (2012) [49], which showed that transformational leadership was a significant predictor of German hotel employees' job satisfaction levels. The findings of the multiple linear regression analysis in this present study are illustrated in table 9. (Predictors: Constant-Transformational Leadership) and (Dependent Variable: Job Satisfaction). R has a value of 0.386 and represents the simple association between transformational leadership and job satisfaction. The value $R^2=0.1491$ indicates that the independent variable (transformational leadership) explains 14.9% of the variability of the dependent variable (job satisfaction). Although this variation in job satisfaction can be explained by many factors, the model can only explain 14.9% of it. This means that 85.1% cannot be explained by just transformational leadership behaviour. Consequently, there are other variables that influence job satisfaction such as the isolation, job security, communication, trust, remote leadership behaviour, environmental factors such as weather etc. which does not constitute part of this study.

Although many researchers agree that transformational leadership had a positive influence on employees' job satisfaction, the findings of Thamrin (2012) [51], showed that transformational leadership did not affect employees' job satisfaction. Similarly, the findings by Long et al. (2014) [52] did not support previous studies that transformational leadership had a significant and positive correlation with job satisfaction. Hanaysha, Khalid, Mat, Sarassina, Rahma & Zakaria (2012) in their study found that Inspirational stimulation to be positively correlated with job satisfaction, individualized consideration to be negatively correlated with job satisfaction while Charisma had no relationship with job satisfaction [53]. This study relates to this study in that this present study also found a different degree of relationship with dimensions of transformational leadership with intellectual stimulation, indicating the most correlation. Tesfaw (2014) also found out that transformational leadership behaviour has a low to moderate level of overall teachers' job satisfaction [54]. This result is similar to the present study. Other prior studies found a positive relationship with job satisfaction [39,48,55-58].

Conclusions

This study concluded that transformational leadership behaviour and its four dimensions showed a weak positive correlation with a statistically significant level of correlation between transformational leadership behaviour and employees' job satisfaction among three selected colleges of Medicine, Dentistry and Sciences, King Khalid University, Abha, Saudi Arabia as measured by the Multi-factor Leadership Questionnaire and the job satisfaction questionnaire. It was also concluded that Intellectual stimulation had more influence, and inspirational motivation had the least influence on employees' job satisfaction.

Recommendations

The findings of this study have some importance for leadership training, policy makers and school management. The following recommendations can be made from the results of the study. To stimulate employees satisfaction with higher institutions, it is necessary for schools leaders to create an open and amicable climate in their institutions in which employees can freely express and share their opinions and collaborations on important decisions. This will reduce stress and boost job satisfaction and morale. Programmes such as seminars, workshops and updates on school administration might be of great help. It is suggested that leaders must make themselves available to leadership training and development programmes to function most effectively.

More research in the area could extend to cover other constructs, which also relate to employees organizational effectiveness and outcomes. Numerous researches are needed at higher education. Further studies could also be investigated using private institutions from a broader variety of backgrounds as well as a comparative analysis between full-time faculty staff and part-time academic staff within higher education. Finally, further studies could be carried out to look at how leadership can improve the performance of either public or private institutions.

Future research could include other leadership styles like transactional or laissez-faire, because other leadership styles may influence job satisfaction. Employees may prefer laissez-faire leadership, as

this would allow them to do their jobs more independently. A repeat of this research is recommended with individuals at different levels of the organization to find out whether these transformational leadership dimensions influence job satisfaction.

Limitations

Common to all research, this study was bound by some limitation that cannot be disparage. Using a cross-sectional research design limits understanding the relationship between transformational leadership employees' job satisfaction in selected colleges in King Khalid University, Abha, Saudi Arabia over time. The study examined transformational leadership and not the full range of leadership styles. Also, the study only measured employees' perception of leadership behaviour; no information was collected from leaders. The results from leadership assessment provide a contrast between how leaders regard themselves and how subordinates regard them. These assessments contribute to changes in leadership behaviour by promoting self-cognizance and possibly encourage leadership development.

Another constraint of this present study is that the degree of the results will be generalized to the study population in the higher institution in Saudi Arabia. In light of the number of colleges and institutions involved in the study, as in this case three colleges within KKU and only one institution which is KKU. Conclusion about the whole population cannot be made. Additionally, the problem of association between male and female due to restrictive government policies on gender also constituted a limitation to this research as it was very difficult for the researchers to access many participants due to this restriction.

Abbreviations

Abbreviations

MLQ: Multi leadership questionnaire; JSS: Job satisfaction survey questionnaire.

References

1. Aunjun, A.U., Abbas, G., & Sajid, M., (2017). Transformational leadership and Employees' motivation in banking sector of Pakistan. *Advances in Economic and Business*, 9, 487-499. Available at: http://www.hrpub.org/journals/article_info.php?aid=6367
2. Nadarasa, T., (2013). Impact of organizational culture on job satisfaction of employees in insurance industry. *European Journal of Business and management*, 5(30) 78-83.
3. Jyoti, J & Bhua, S. (2016). Empirical investigation of moderating variables in between transformational leadership and related outcomes: A study of higher education in North India. *International journal of Education Management*. 30 (6), 1123-1149.

4. Naz, A., Khan, W., Daraz, U., Rehman, H. U., Hussain, M., Alam, I. & Alam, H., (2012). Assessing the consequential role of infrastructural facilities in academic performance of students in Pakistan. *International Journal of Social Sciences and Education*, 3(2), 463-475.
5. Shafi, M., (2016). Job Satisfaction in College Teachers: A Survey Based Study of Government Colleges of Hyderabad, Pakistan. *J Hotel Bus Manage*, 5(1), 126. DOI: 10.4172/2169-0286.1000126
6. Bowman, R. F., (2002). The real work of department chair. *The Clearing House*, 75(3), 158-162.
7. Harrison, L. J. (2011). Instructor transformational leadership style and student outcome. *Emerging leadership journey*, 4, 82-136.
8. Sadeghi, A. & Pihie, Z.A.L., (2013). The style of transformational leadership style in enhancing lecturer's job satisfaction. *International Journal of Business and Social Sciences*, 4(8), 264-271.
9. McArthur, R.C., (2002). Democratic leadership and faculty empowerment at the community college: a theoretical model for the department chair. *Community College Review*, 30(3), 1-10.
10. Sharma, R.D., and Jyoti, J., (2006). Job satisfaction among school teachers', *IIMB Management Review*, 18(4), 349-363.
11. Thomas, J.R., and Schuh, J.H., (2004). Socializing new chairs. *New Directions for Higher Education*, 12(6), 11-25.
12. Yukl, G., (2013). Leadership in Organization, 8th Pearson, Edinburgh Gate, England.
13. Koehler, J. W., & Pankowski, J. M. (1997). Transformational leadership in government. Delray Beach, FL: St. Lucie Press.
14. Locke, E. A., (1978). The nature of job satisfaction. In M. D. Dunnette, Handbook of industrial and organizational psychology pp.1293-1349. Chicago: Rand McNally.
15. Nguni, S., Slegers, P., and Denessen, E., (2006). Transformational and transactional leadership effects on teachers' job satisfaction, organizational commitment, and organizational citizenship behavior in primary schools: The Tanzanian case. *School Effectiveness and School Improvement*, 17(2), 145- 177.
16. Shrivastava, A., & Purang, P., (2009). Employee Perception of Job Satisfaction: Comparative Study on Indian Banks. *Asian Academy of Management Journal*, 1, 65-78.
17. Currivan, D. B. (1999). The causal order of job satisfaction and organizational commitment in models of employee turnover. *Human Resource Manager Review*, 9, 495-524.
18. Ge, C., Fu, J., Chang, Y., & Wang, L., (2011). Factors associated with job satisfaction among Chinese community health workers: A cross-sectional study. *BMC Public Health*, 11, 884-898.
19. Abdul, M., Ismail, H., & Jaafar, N. I. H. (2010). Job satisfaction among executives: Case of Japanese electrical and electronic manufacturing companies, Malaysia. *Journal of Global Business Management*, 6(2), 1-9.
20. Chang C.M., Chiu., & C.A. Chen. (2010). The effect of TQM practices on employee satisfaction and loyalty in government. *Total Quality Management*, 21(12), 1299-1314.
21. Day, D. (2001). Leadership development: A review in context. *Leadership Quarterly*, 11(4), 581-613.

22. Kovjanic, S., Schuh, S. C., Jonas, K., Quaquebeke, N. V., and Dick, R. V. (2012). How do Transformation al leaders foster positive employee outcomes? A self-determination-based 203 analysis of employees' needs as mediating links. *Journal of Organizational Behavior*, 33 (8), 1031 – 1052.
23. Al-Khasawneh, A. L., & Futa, S. M., (2013). The impact of leadership styles used by the academic staff in the Jordanian public universities on modifying students' behavior: A field study in the northern region of Jordan. *International Journal of Business and Management*, 8(1), 1-10.
24. Voegtlin, C., Patzer, M., & Scherer, A., (2012). Responsible leadership in global business: A newapproach to leadership and its multi-level outcomes. *Journal of Business Ethics*, 105, 1-16.
25. Schermerhorn, John, James, G. Hunt, and Richard, N. Osborn, (1991). *Managing Organizational Behavior*. Fourth Edition. United States: John Wiley and Sons Inc.
26. Alzaidi, A. M., (2008). Secondary school head teachers' job satisfaction in Saudi Arabia: A mixed methods approach. *Annual Review of Education, Communication & Language Sciences*, 5, 161-185
27. Hijazi, S., Kasim, L. A., and Daud, Y. (2016). Leadership styles and their relationship with Private University Employees' job satisfaction in United Arab Emirate. *Journal of Public Administration and Governance*, 6(4).
28. Chen, G., Ployhart, R. E., Thomas, H., Anderson, N., & Bliese, P. D. (2011). The power of momentum: A new model of dynamic relationships between job satisfaction. *Academy of Management Journal*, 54(1), 159-181
29. Leedy D. P. & Ormrod E. J. (2015). *Practical Research: Planning and Design*, (11th) Pearson, Edinburge Gate, *Harlow.Management*, 5(3) 91-100.
30. Avolio B. J. & Bass, B. M. (2004). Multifactor leadership Questionnaire. *Mind Garden*.
31. Spector P.E., (1985). Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. *American journal of community psychology*, 13(6), 693-713.
32. Babbie, E. (2015). *The Practice of Social Research*, 14th edition, Cengage Learning, Boston, M.A.
33. Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual review of psychology*. 63, 539-569. doi:10.1146/annurev-psych-120710-100452.
34. Akinlolu, O. E., & Zabair, H. (2015). The effect of transformational leadership on job satisfaction: A study on four and five star Hotels in Kuala Lumpur. *International Journal of Accounting and Business Management*, 3(1), 81-91.
35. Arzi, S, & Farahbod, L. (2014). Relationship of transformational and transactional leadership. *Interdisciplinary Journal of Contemporary Research in Business*, 6(3), 87-204.
36. Boamah, S. A., Spence, L. H. K. Wong, E. & Clarke, S. (2018). Effect of transformational leadership on job satisfaction and patients' safety outcome. *Nurs Outlook*, 66(2), 180-189. doi: 10.1016/j.outlook.2017.10.004. Epub 2017 Nov 23.

37. Bushra, F., Usman, A. & Naveed, A. (2011). Effect of transformational leadership on employee job satisfaction and organizational commitment in banking sector of Lahore (Pakistan). *International Journal of Business Science and Social Sciences*, 2(18), 261-267.
38. Khanzada, B. Naeem, S. & Butt, H. (2018). Impact of transformational leadership on job satisfaction and patients' safety outcome in health sector Pakistan. *Journal of Health Education Research and Development*, 6(2), 251.
39. Mohammad, S., Al-Zeaud, H., & Batayneh, E. S.M.A., (2011). The relationship between transformational leadership and employees' job satisfaction at Jordanian private hospital. *Business and Economic horizons*, Vol.5. Available at: academipublicplatform.com. (Accessed 20/5/2018).
40. Omar, W. & Hussin, F., (2013). Transformational Leadership Style and Job Satisfaction Relationship: A Study of Structural Equation Modeling. *International Journal of Academic Research in Business and Social Sciences*, 3(2), 346-365.
41. Sohail, M.T., & Delin, H., (2013). Job Satisfaction Surrounded by Academics Staff: A Case Study of Job Satisfaction of Academics Staff of the GCUL, Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 4(11), 126-13.
42. Voon, M. L., Lo, M. C., Ngui, K. S., Ayob, N. B., (2011). The influence of leadership styles on Employees' Job Satisfaction in Public Sector Organization in Malaysia. *Journal of Business, Management and Social Sciences*, 3(1), 24-32.
43. Bass, B. M., & Avolio, B. J. (1990). The implications of transactional and transformational leadership for individual, team, and organizational development. *Research in organizational change and development*,
44. Wang, X., Chontawan, R. & Natsupawat, R. (2011). Transformational leadership: effect on job satisfaction of Registered Nurse in a hospital in China. *Journal of Advanced Nursing*, 68(2), 444-451.
45. Bodla, M. A. & Nawaz, N.M. (2010). Transformational leadership style and its relationship with satisfaction. *Interdisciplinary Journal of Contemporary Research in Business*, 2(1), 370-381.
46. Kimura, T. (2012). Transformational leadership and job satisfaction: the mediating effects of politics and market orientation in the Japanese context. *International journal of Business science and Applied Management*, 7(1), 30-42.
47. Sakiru, O. K., D'Silva, J. L., Othman, J., Silong, A. D., & Busayo, A.T. (2013). Leadership style and job satisfaction among employees in small and medium enterprise. *International Journal of Business Management*, 8(13), 34-41.
48. Shibru, B. & Darshan, G.M. (2011). Effects of transformational leadership on subordinate job satisfaction in leather companies in Ethiopia. *International Business Management & Economic Research*, 3(5), 126-138.
49. Rothfelder, K., Ottenbacher, M.C. & Harrington, R. J. (2012). The impact of transformational, transactional and non-leadership style on employee job satisfaction in German hospitality industry. *Tourism and Hospitality Research*, 12, 201-214).

50. Yang, Mu-Li., (2012). Transformational leadership and Taiwanese public relations practitioners' job satisfaction and organizational commitment. *Social Behavior and Personality: an International Journal*, 40(1), 31-46.
51. Thamrin, H.M. (2012). Transformational leadership and organizational commitment on job satisfaction and employee performance. *International Journal of innovation, Management and Technology*, 3(5), 566-572.
52. Long, C. S., Yusof, W. M. M., Kowang, T. O., & Heng, L. H. (2014). The Impact of Transformational Leadership Style on Job Satisfaction. *World Applied Sciences Journal*, 29 (1), 117-124. DOI: 10.5829/idosi.wasj.2014.29.01.1521
53. Hanaysha, J. R. M., Khalid, K. Mat, N. K. N., Sarassina, Ab Rahman, M. Y. & Zakaria, A. S. (2012). Transformational leadership and job satisfaction. *American Journal of Economics*, 145-148.
54. Tesfaw, A.T., (2014). The relationship between transformational leadership and Job satisfaction: A case study of government secondary teachers in Ethiopia. *Educational Management Administration & Leadership*, 42(6), 903-918.
55. Abouriaia, M. & Othman, S. M. (2017). Transformational leadership, Job Satisfaction, organizational Commitment and Turnover Intention: The Direct Effects among Banks Representatives. *American Journal of Industrial and Business Management*, 7, 494-423. Available at: <https://dot.org/10.4236/ajibm.2017.74029> . (Accessed 15/9/2018)
56. Aydin, A., Sarier, Y., & Uysal, S. (2013). The effect of school principals' leadership styles on teachers' organizational commitment and job satisfaction. *Educational Sciences: Theory and Practice*, Spring. 2, 806-811. Available at: <https://files.eric.ed.gov/fulltext/EJ1017309.pdf>, (Accessed 10/5/2018)
57. Bayram, H., and Dinc, S. (2015). The role of transformation leadership on Employees' job satisfaction: The case study of private University in Bosnia and Herzegovina. *European Researcher*,
58. Bolger, R. (2001). The influence of leadership style on teacher job satisfaction. *Educational Administrative Quarterly*, 37, 662–683. Available at: <http://journals.sagepub.com/doi/10.1177/00131610121969460>, (Accessed 24/4/2018).

Tables

Table 1: Sample size distribution

Operational Unit	Total population	Sample size	% of population	Sample method	Sample Frame
Unit A	100	60	60%	Non-probability Homogeneous Purposive Sampling	KKU. Manually & hard copy
Unit B	90	50	55.6%	Non-probability Homogeneous Purposive Sampling	KKU. Manually & hard copy
Unit C	60	40	66.7%	Non-probability Homogeneous Purposive Sampling	KKU. Manually & hard copy

Table 2: Demographic profile of study participants

Factors	No of participants	% of participants
Types of colleges		
Dental	82	56.16
Medical	44	30.14
Science	20	13.70
Gender		
Male	119	81.51
Female	27	18.49
Age groups		
25-34	22	15.07
35-44	80	54.79
45-54	34	23.29
55 and above	10	6.85
Highest educational level		
Graduate	9	6.16
Post graduate	137	93.84
Role in organization		
Academic	145	99.32
Non-academic	1	0.68
Working experience		
One month- 11months	11	7.53
1year- 5years	56	38.36
6years- 10 years	47	32.19
11years- 15years	26	17.81
16years-20years	5	3.42
20 and above	1	0.68
Total	146	100.00

Table 3: Item analysis of Management Behaviour scale
Cronbach alpha: 0.9731 Standardized Alpha: 0.9733

Items	Item total correlation	Alpha value
ID1	0.6943	0.9726
ID2	0.7449	0.9722
ID3	0.7907	0.9719
ID4	0.7789	0.9719
ID5	0.7416	0.9722
ID6	0.7709	0.9720
ID7	0.7773	0.9720
ID8	0.6708	0.9727
ID9	0.8176	0.9717
ID10	0.8052	0.9718
ID11	0.8090	0.9717
ID12	0.7022	0.9725
IM1	0.5704	0.9733
IM2	0.8259	0.9716
IM3	0.7461	0.9722
IM4	0.7519	0.9721
IM5	0.7800	0.9719
IS1	0.7559	0.9721
IS2	0.8007	0.9718
IS3	0.8204	0.9717
IS4	0.7741	0.9720
IS5	0.7637	0.9721
IC1	0.6649	0.9728
IC2	0.7045	0.9725
IC3	0.7700	0.9720
IC4	0.7661	0.9720

Table 4: Item analysis of job satisfaction scale
Cronbach alpha: 0.80975 Standardized Alpha: 0.83544

Items	Item total correlation	Alpha value
JS1	0.4059	0.8022
JS2	0.2793	0.8059
JS3	0.1591	0.8091
JS4	0.3412	0.8045
JS5	0.0270	0.8129
JS6	0.3250	0.8047
JS7	0.1622	0.8089
JS8	0.4349	0.7999
JS9	0.2925	0.8055
JS10	0.3464	0.8042
JS11	0.2849	0.8056
JS12	0.3631	0.8028
JS13	0.2278	0.8074
JS14	0.2976	0.8052
JS15	0.1123	0.8410
JS16	0.5281	0.7968
JS17	0.2291	0.8073
JS18	0.4689	0.7987
JS19	0.2970	0.8052
JS20	0.4147	0.8015
JS21	0.3732	0.8026
JS22	0.3539	0.8037
JS23	0.3455	0.8036
JS24	0.2918	0.8055
JS25	0.1392	0.8097
JS26	0.4226	0.8009
JS27	0.2077	0.8079
JS28	0.3595	0.8031
JS29	0.1880	0.8085
JS30	0.2619	0.8066
JS31	0.3219	0.8048
JS32	0.3867	0.8024
JS33	0.3806	0.8023
JS34	0.4591	0.7992
JS35	0.2992	0.8055
JS36	0.5218	0.7973

Table 5: Descriptive Statistics of dimensions of transformational leadership and job satisfaction

Variables	N	Min	Max	Range	Mean	SD	SE
Idealized influence (ID)	146	14.00	72.00	58.00	54.77	11.77	0.97
Inspirational motivation (IM)	146	7.00	30.00	23.00	22.75	4.93	0.41
Intellectual stimulation (IS)	146	6.00	30.00	24.00	22.45	5.07	0.42
Individualized consideration (IC)	146	4.00	24.00	20.00	17.21	4.33	0.36
Job satisfaction	146	80.00	198.00	118.00	148.36	19.93	1.65

Table 6: Normality of all variables by Kolmogorov Smirnov test

Variables	Z-value	p-value
Idealized influence (ID)	1.8420	0.0020*
Inspirational motivation (IM)	1.9140	0.0010*
Intellectual stimulation (IS)	1.6850	0.0070*
Individualized consideration (IC)	1.6470	0.0090*
Total of all dimensions (transformational leadership)	1.8970	0.0010*
Job satisfaction	0.9460	0.3320

*p<0.05

Table 7: Spearman's rank order correlation coefficient analysis of transformational leader dimensions and job satisfaction

Variables	Spearman's rank order correlation coefficient between job satisfaction with			
	N	Spearman R	t-value	p-level
Idealized influence (ID)	146	0.3452	4.4137	0.0001*
Inspirational motivation (IM)	146	0.2934	3.6833	0.0003*
Intellectual stimulation (IS)	146	0.3622	4.6627	0.0001*
Individualized consideration (IC)	146	0.3334	4.2443	0.0001*

*p<0.05

Table 8: Spearman's rank order correlation coefficient analysis of overall transformational leader and job satisfaction

Variables	Spearman's rank order correlation coefficient between job satisfaction with overall transformational leadership			
	N	Spearman R	t-value	p-level
Transformational leader (TL)	146	0.3459	4.4238	0.0001*

*p<0.05

Table 9: Multiple linear regression analysis of job satisfaction by transformational leadership behaviour

Independent variable	Estimates	SE of estimate	t-value	p-value
Intercept	111.8655	7.4231	15.0698	0.0001*
Transformational leadership behaviour	0.3115	0.0620	5.0242	0.0001*
R=0.3861, R ² =0.1491, F(1,144)=25.242 p<0.00, S, Std .Error of estimate: 18.450				

*p<0.05

Table 10: Multiple linear regression analysis of job satisfaction by transformational leadership behaviour/dimensions

Independent variables	Estimates	SE of estimate	t-value	p-value
Intercept	113.1981	7.5144	15.0641	0.0001*
Idealized influence (ID)	0.2518	0.3350	0.7516	0.4536
Inspirational motivation (IM)	-0.5860	0.7234	-0.8101	0.4193
Intellectual stimulation (IS)	1.1045	0.7600	1.4532	0.1484
Individualized consideration (IC)	0.5760	0.6487	0.8879	0.3761
R=0.4023, R ² =0.1618, F(4,141)=6.8084 p<0.001, S, Std. Error of estimate: 18.505				

*p<0.05

Declarations

Financial support and sponsorship: Nil.

Availability of data and materials

The data generated by and analysed during the current study are available from the corresponding author on reasonable request.

Authors' contributions

EIE, RS, IB and ABIE designed the study. EIE, JJK & EKA was responsible for data collection. MZ, IB and JJK participated in the data analysis and interpretation, and drafted the manuscript. All authors revised, read and approved the final manuscript.

Ethics approval and consent to participate

Institutional Permission was requested and obtained from the institution under study and approval for this study was given by the Departmental Ethics Committee, University of South Africa (UNISA) before the commencement of the study, which did not consider it to include any sensitive personal information.

Consent for publication

All participants gave their informed consent for the research data to be included in a published article, without identifiable information.

Competing interests

The authors declare that they have no competing interests.

Figures

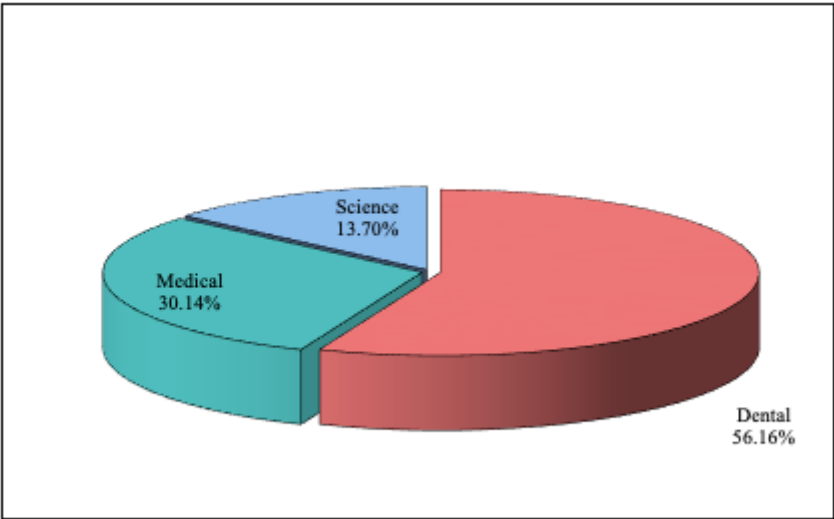


Figure 1

Distribution of sample according to college

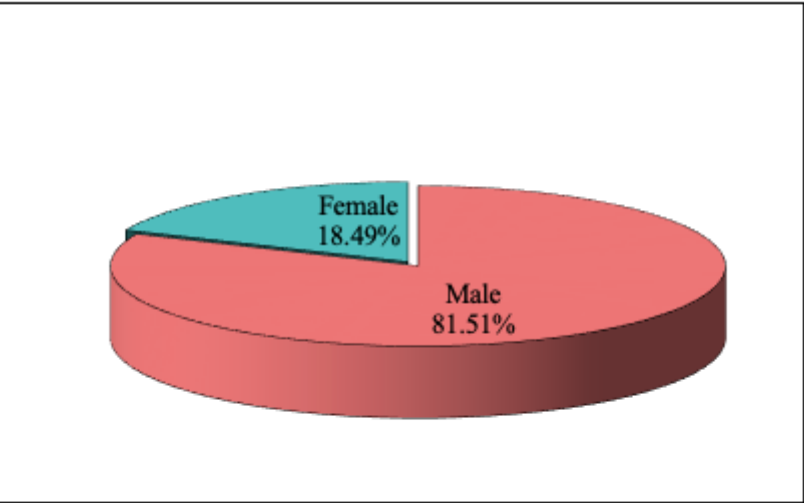


Figure 2

Gender wise distribution

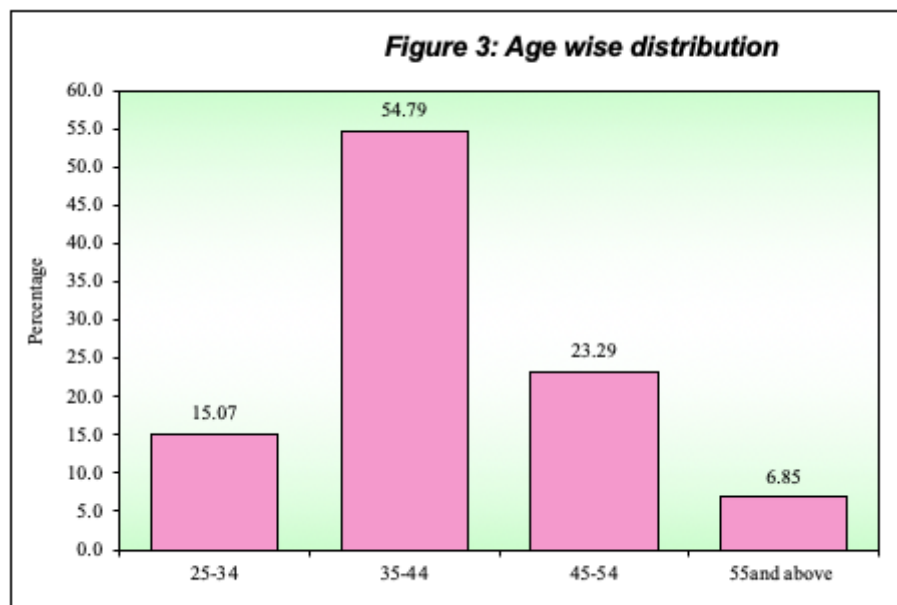


Figure 3

Age wise distribution

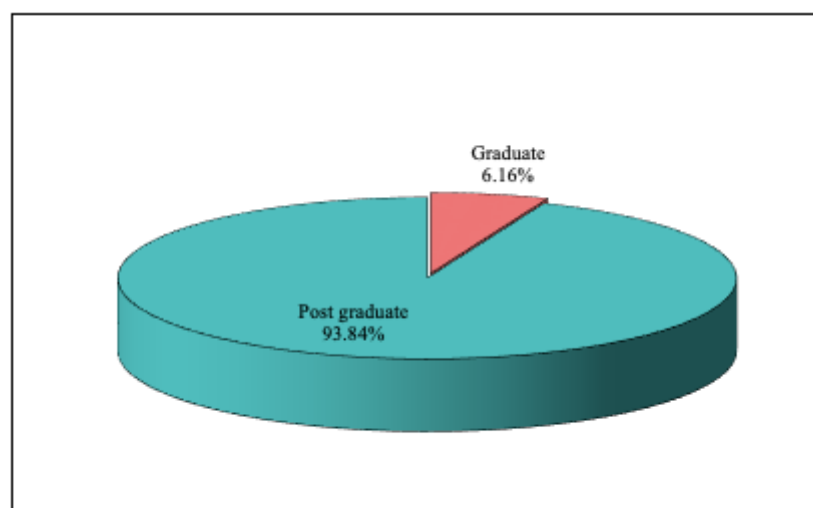


Figure 4

Distribution according to educational level

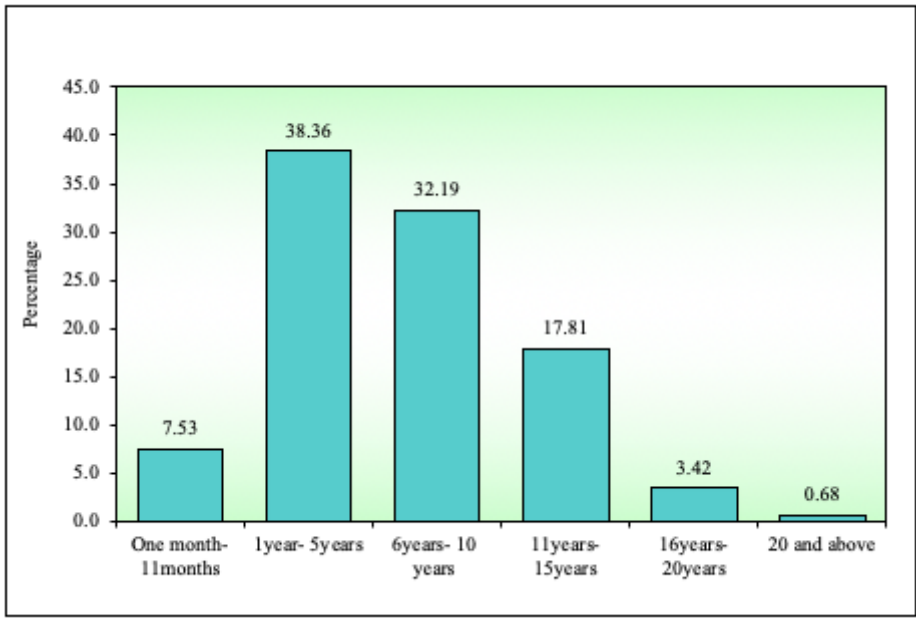


Figure 5

Distribution according to working experience