

The Relationship between Nurses' Perceived Pay Equity and Organizational Commitment

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Abstract: The concept of organizational commitment has raised high interest from the perspective of understanding the intensity and stability of the individual's dedication to the organization. The question must be posed concerning the way commitment in the workplace links to feelings of equity. Attainment of equity is accomplished when the employee's outcomes to inputs are noted as being comparable to the referent ratios of other employees in their organization or work group. **Aim:** the current study aims to determine the relationship between nurses' perceived pay equity and their organizational commitment. **Subjects:** 151 nurses who are working in all units at Damanhour National Medical Institute. **Instrument of the study:** The research instrument is a self-administered questionnaire that consisted of three sections which are: section 1; demographic questions addressing items such as years of experience, Educational level and place of work, Section 2 asking about pay equity and finally section three that asked about the organizational commitment (OC). **Results:** The study findings showed a positive significant correlation between perceived pay equity and normative commitment where $P=0.001$. Another positive significant correlation was found between perceived pay equity and total level of commitment where $P=0.04$. Nurses' perceived pay equity and level of commitment differed according to their years of experience. **Conclusion:** A positive significant correlation between pay equity and normative commitment (NC), as well as, total commitment level. The majority of nurses perceived their pay as unfair, while they were nearly equal in their level of commitment. The more experienced nurses differed significantly in relation to their perceived pay and level of commitment than less experienced nurses. **Recommendation:** Link the nurses' payment with the level of performance of nurses through the grade of performance appraisal. Head nurses should improve nurses' working conditions especially newly recruited nurses to increase their commitment level.

[Yaldez K. Zein ElDin, and Reem Mabrouk Abd El Rahman. **The Relationship between Nurses' Perceived Pay Equity and Organizational Commitment.** *Life Sci J* 2013;10(2):889-896] (ISSN:1097-8135).

<http://www.lifesciencesite.com>. 125

Keywords: Organizational Commitment, Pay equity, normative commitment, affective commitment, continuance commitment.

1. Introduction:

Maintaining adequate staffing in order to operate efficiently is a major priority for all companies and health care organizations¹. In Egypt, based on the benchmark international standards and realistic estimates of Egypt's health system needs, it was estimated that the nursing shortage of all types of nurses is 44,000 nurses². Aiken and Buchan (2008) highlighted as an overwhelming obstacle which is the scarcity of qualified health professionals that would severely affect the ability to achieve an effective health system³. Recently, the global nursing shortage has attracted the researchers' attention to study organizational commitment and job satisfaction of nurses⁴⁻⁷. Due to the nursing shortage, healthcare administrators must not only recruit continuously to maintain effective staffing levels but also build commitment among nursing staff to retain nurses⁸. Organizational Commitment has previously been shown to influence intent-to leave, turnover, innovation, performance, and motivation of employees resulting in greater employees retention rates⁹.

In fact, the concept of organizational commitment has raised high interest from the perspective of understanding the intensity and stability of the individual's dedication to the organization¹⁰. Allen (2003) reported that employees who are committed or attached to the organization often demonstrate improved productivity, a reduction in absenteeism, and a higher retention rate¹¹. Porter and colleagues defined organizational commitment as the strength of an individual's identification with and involvement in a particular organization and reflects the individual's persistence in making sacrifices for the good of the organization¹². Meyer and Allen (1991) developed a three-component concept of organizational commitment; they suggested commitment to be a psychological state that exists in three distinct types: affective, continuance, and normative commitment. These three classifications have a correlation with the employee's perceived desire, need, and obligation to remain with a particular organization¹³.

Affective and normative commitments are proposed to be associated with positive

organizational outcomes. Meyer and Allen (1997) defined affective commitment as an employee's emotional attachment, involvement or identification with a particular organization⁸. Affective commitment (AC) is an individual's attachment to, identification with, and involvement in an organization. The degree of affective commitment depends on the strength of positive feelings toward the organization and willingness to increase one's emotional bond to that organization. Thus, employees work in the organization because they want to, and they are intrinsically willing to exert efforts on behalf of the organization¹⁴. Normative Commitment (NC) is defined as an employee's sense of obligation to his or her employer or organization. Normative commitment forms because individuals' goals or values are aligned with those of the organization. Consequently, individuals are more likely to regard obedience to the authority and norms of the group as appropriate and are less likely to challenge or deviate from organizational wishes. Therefore, employees stay with the organization because they believe they ought to do so. Continuance Commitment (CC) is defined as an employee's awareness of the costs associated with leaving an organization^{8, 14}.

The question must be posed concerning the way commitment in the workplace links to feelings of equity. A study was conducted by Scandura and Lankau's (1997) who linked commitment to feelings of equity in the workplace¹⁵. Adams (1965) studied the equity theory and claimed that employees strive to attain and maintain equity in the workplace. Attainment of equity is accomplished when the employee's outcomes to inputs are noted as being comparable to the referent ratios of other employees in their organization or workgroup. Unbalance or inequity is experienced when the employee experiences dissatisfaction or other similar feelings that prompt the employee to correct the imbalance in ratios¹⁶. Pay inequity is an important issue because it imposes an economic loss on the victims of such inequity leading to lack of commitment, absenteeism, high turnover and thus increase costs on the organization for recruiting new nurses¹⁷.

Abdul Salam (2011)¹⁸ and Farag (2008)¹⁹ described the situation in Egypt by clarifying the huge salary differences between nurses working in public sectors and those working in private sectors and stated that this is one of major causes of nursing shortage in Egypt generally and in public sector specifically. Since nursing shortage is becoming a significant obstacle in the goal for higher retention of nurses, it is important to conduct research surrounding nursing commitment and pay equity. Al-Hussami and colleagues (2008) explained that nurse managers should view job satisfaction as a predictor

of turnover, retention, etc. Also, he elaborated that workplace issues related to organizational commitment and unfair working conditions should be addressed promptly. Unfair working conditions are those related to lack of support and salary inequities²⁰.

In Egypt, nurses' organizational commitment has been studied but not in relation to working conditions as pay equity. Abood and colleagues (2011) studied organizational commitment of nursing staff in Minia University²¹. Freund (2005) stated that future research needs to be conducted concerning the relationship between employee commitment and the organization in an attempt to better understand the job factors that influence various types of employee commitment²². Hence, further exploration into pay equity and organizational commitment is imperative to gain a greater understanding of how to increase retention and reduce turnover among the nursing community.

Aim of the study:

The current study aims to detect the relationship between nurses' perceived pay equity and organizational commitment.

Research Question:

Is there a relationship between nurses' perceived pay equity and organizational commitment at Damanhour National Medical Institute?

2. Methodology

Design:

The study has a descriptive correlational design.

Setting:

The study was conducted in all units of Damanhour National Medical Institute, namely; all critical care units (1 ICU, 1 CCU, 1 High risk, 1 Emergency) and all Medical-Surgical units. The Medical Units included are; (Liver diseases, Kidney diseases, Diabetes, Psychiatric, Neurology, Obstetrics, Thalassemia, Ophthalmology, Hematemesis). The Surgical Units are; (General Surgery A, B, C and D, Orthopedic, ENT, Urology, and three operating theaters). Dialysis Unit was excluded from the study as there was repair in the unit and it was closed during data collection. The institute is considered the main hospital in El-Beheira Governorate that provides all types of health services for the population of this governorate.

Subjects:

Subjects of the study included all nurses working in the units mentioned previously in Damanhour National Medical Institute. 151 nurses agreed to respond to the questionnaire.

Study Instrument:

The research instrument is a self-administered questionnaire that consisted of three sections which are: section 1; demographic questions addressing items such as years of experience, Educational level and place of work, Section 2 asking about pay equity and finally section 3 that asked about the organizational commitment (OC).

Section 2: Pay Equity questionnaire: The second section of the study instrument included a 5 point Likert-scale questionnaire designed to assess the participant's perception of pay equity developed by Richardson (2011)²³. It contains (8 items) asking about nursing staff perception of pay equity. The questions were addressing the fairness of pay equity from the perspectives of participants' position, current working conditions, as well as participants' level of seniority, knowledge skills and abilities. The scores ranged from 8- 40. The higher the scores, the higher perception of pay equity.

Section 3: Organizational Commitment (OC) questionnaire:

The second section of the study instrument was in a statement and Likert scale format. Organizational commitment was addressed as affective and normative commitment measured using Myer, Allen and Smith's (1993)²⁴ revised affective and normative scales. Continuance commitment was measured using Powell and Meyer's (2004)²⁵ subscale of Continuance commitment. Each scale contained six items for each construct.

The above questionnaires were paper-and-pencil ones using a 5 point Likert scale ranging from 1= Strongly Disagree to 5= Strongly Agree. Negatively worded items are included on Organizational Commitment questionnaire to avoid response set bias. Scores of these items are reversed for calculating the total score.

Methods:

1. An official permission from the hospital administrative authority was obtained.
2. The study questionnaires were translated into Arabic by the researchers and were tested for content validity using five experts' reviews. Modifications were done accordingly.
3. The two sections of the questionnaire were tested for their reliability using Cronbach α and their values were as following: Section 1: Pay equity questionnaire (0.90), Section 2: Affective Commitment (0.89), Normative commitment (0.76) and finally Continuance Commitment (0.85).
4. A pilot study was done on 16 nurses (10%) of the total sample in order to test the clarity

of the questionnaires. Nurses who were included in the pilot study were excluded from the main study sample.

5. **Ethical consideration:** The purpose of the research was explained to all nurses. Confidentiality was ensured and their right to withdraw from the research at any time was explained and ensured.
6. Data was collected in the period from July 2012 to September 2012. The instrument was completed by participants within approximately 15 to 20 minutes.
7. The data collected through the Likert-type questions were collapsed into "high" or "low" groups depending where the response fell on the scale (1 = strongly disagree to 5 = strongly agree). Those who responded from 1 to 3 were considered "low" commitment or "Unfair" pay and those who responded from 4 to 5 were considered "high" commitment or "fair" pay.

Statistical analysis:

After data were collected it was revised, coded and fed to statistical software SPSS version 16. All statistical analysis was done using two tailed tests and alpha error of 0.05. *P* value equals to or less than 0.05 was considered to be significant.

The following statistical tests were used: **A.** Descriptive statistics in the form of mean with standard deviation, **B.** Analysis of numeric data using One-Sample Kolmogorov-Smirnov Test and **C.** Analysis of categorical data using; 1. Descriptive statistics in the form of frequencies and percentages, 2. Pearson's chi square test: and 3. Mont Carlo exact test and Fishers exact test: they are alternatives for the Pearson's chi square test if there were many small expected values.

3. Results:

The current study was conducted in all units of Damanhour National Medical Institute, the total number of nurses who participated in this study was (151) nurses. The highest percentage (39.1%) was for surgical units' nurses, while ICU nurses were represented by the lowest percentage (27.8%). In relation to their educational preparation, the majority of participants (66.2%) were diploma degree, while the least percentage (10.6%) was for nurses holding Bachelor degree and over. (47.7%) of nurses were experienced from 10 years to less than 20 years, and (24.5 %) were experienced for less than 10 years, with a mean of (14.7 \pm 7.7). (**Table 1**)

Table 1: Characteristics of nurses in Damanhour Medical National Institute (n= 151)

Socio demographic data	No	%
Units		
Medical	50	33.1
Surgical	59	39.1
ICU	42	27.8
Education		
Nursing Secondary School Diploma	100	66.2
Technical health institute Diploma	35	23.2
Bachelor of Ng. Science and Master Degree of Ng. Science	16	10.6
Experience in years		
<10	37	24.5
10-	72	47.7
20+	42	27.8
Min-Max		1-34
Mean \pm SD		14.7 \pm 7.7

The payment equity was differentiated according to nurses' responses as fair and unfair payment; the unfair payment was represented by a total of 133 nurses, while the fair payment was represented by a total of 18 nurses. In relation to commitment nurses were divided according to their commitment level as to high commitment (N= 76)

and Low commitment (N= 75). It could be observed from table (2) a positive significant correlation between perceived pay equity and normative commitment where $P=0.001$. Another positive significant correlation could be found between perceived pay equity and total level of commitment where $P= 0.04$. (Table 2)

Table 2: The correlation between perceived pay equity and nurses' levels of organizational commitment. (n=151)

Types of Commitment (n= 151)	Pay (n= 151)				χ^2	<i>P</i>
	Unfair (n= 133)		Fair (n=18)			
	No	%	No	%		
Affective commitment						
▪ Low	109	82.0	15	83.3	0.02	0.886
▪ High	24	18.0	3	16.7		
Continuance commitment						
▪ Low	68	51.1	5	27.8	3.5	0.063
▪ High	65	48.9	13	72.2		
Normative commitment						
▪ Low	60	45.1	1	5.6	10.3	0.001*
▪ High	73	54.9	17	94.4		
Total Commitment						
▪ Low	70	52.6	5	27.8	3.9	0.048*
▪ High	63	47.7	13	72.2		

* Significant difference at $P < 0.05$

Table (3) illustrates the mean scores of total payment and commitment in relation to nurses' demographic characteristics. It is shown from the table that regarding mean scores of nurses' perception of their payment in relation to the units where they were working, the highest mean (16.1 \pm

6.2) was for surgical nurses, while the lowest (14.6 \pm 5) was for ICU nurses. Nurses with Bachelor Degree recorded the highest payment mean (18.2 \pm 6.3), counter to nurses holding diploma degree from health institute who recorded the lowest payment mean (14.3 \pm 5.5). Furthermore, the highly experienced

nurses perceived their payment more favorable (17.7 ± 7) than nurses experienced from 10 to less than 20 years who recorded the lowest mean (13.5 ± 4.9), with a significant difference, where $P=0.001$.

Surgical nurses' commitment received the highest commitment mean score (53.9 ± 8.1) as compared to medical (52.6 ± 10.8), and ICU nurses (52.1 ± 10.9). Diploma degree nurses recorded the

highest commitment mean (54.2 ± 9.2), while the Bachelor and Master degree nurses recorded the lowest mean (46.7 ± 1.5). Nurses with 20 and more years of experiences were highly committed (56.2 ± 8.1), as compared to those nurses whose experience is less than 10 years (49.7 ± 10), which differed significantly where $P=0.018$. (Table 3)

Table 3: Total payment and commitment mean scores in relation to nurses' demographic characteristics. (n=151)

Socio demographic data	Payment total (n=151)		Commitment Total (n=151)	
	Mean	±SD	Mean	±SD
Units				
Medical	15.6	±6.9	52.6	±10.8
Surgical	16.1	±6.2	53.9	±8.1
ICU	14.6	±5.0	52.1	±10.9
X^2	0.99		0.20	
P	0.607		0.905	
Education				
Nursing Secondary School Diploma	15.6	±6.4	54.2	±9.2
Technical health institute Diploma	14.3	±5.5	50.8	±11.4
Bachelor of Ng. Science and Master Degree of Ng. Science	18.2	±6.3	50.7	±10.2
X^2	3.2		5.9	
P	0.536		0.116	
Experience in years				
<10	17.1	±6.1	49.7	±10.0
10-	13.5	±4.9	52.8	±10.2
20+	17.7	±7.0	56.2	±8.1
X^2	14.3		8.1	
P	0.001*		0.018*	

* Significant difference at $P < 0.05$

In relation to pay equity, the majority of nurses (94.3%) who had diploma degree from health institute perceived their payment as unfair, as compared to (81.3%) of the Bachelor and master degree nurses. (94.4%) of nurses experienced between 10 years to less than 20 years perceived their payment as unfair, while (81%) was the percentage of nurses experienced above 20 years and perceived unfair payment. (95.2%) of ICU nurses perceived their payment as unfair, as well as (86 %) of medical nurses and (84.7 %) of surgical nurses with no significant difference among groups. (Table 4)

Regarding the commitment level, more than half of diploma degree nurses (54%) were highly

committed, (51.4%) of technical health institute nurses and (68.8%) of the Bachelor and master degree nurses had low commitment level. (67.6%) of nurses experienced less than ten years had low commitment level, (54.2%) of those who are experienced from 10 to less than 20 years of experience and (59.5%) of nurses who are experienced 20 years and over had high commitment level, with a significant difference where $P=0.037$. (52%) of medical units nurses and (54.8%) of ICU nurses had low commitment level, while (55.9%) of surgical nurses were highly committed. (Table 4)

Table 4: Distribution of nurses' perception as "fair", "unfair" pay equity and "low", "high" organizational commitment by their demographic characteristics. (n=151)

Socio demographic data	Payment total (n=151)				Commitment Total (n=151)			
	Unfair (n=133)		Fair (n=18)		Low (n=75)		High (n=76)	
	N ^o	%	N ^o	%	N ^o	%	N ^o	%
Units								
Medical	43	86.0	7	14.0	26	52.0	24	48.0
Surgical	50	84.7	9	15.3	26	44.1	33	55.9
ICU	40	95.2	2	4.8	23	54.8	19	45.2
X^2	2.9				1.3			
P	0.237				0.526			
Education								
Nursing Secondary School Diploma	87	87.0	13	13.0	46	46.0	54	54.0
Technical health institute Diploma	33	94.3	2	5.7	18	51.4	17	48.6
Bachelor of Ng. Science and Master Degree of Ng. Science	13	81.3	3	18.8	11	68.8	5	31.3
X^2	2.1				2.9			
P	0.349				0.233			
Experience in years								
<10	31	83.8	6	16.2	25	67.6	12	32.4
10-	68	94.4	4	5.6	33	45.8	39	54.2
20+	34	81.0	8	19.0	17	40.5	25	59.5
X^2	5.5				6.6			
P	0.349				0.037*			

* Significant difference at $P < 0.05$

4. Discussion:

Healthcare organizational stability rests on organizational commitment. Organizational commitment is a critical element of staff retention and highly associated with intent to leave and actual turnover²⁶. The current study sought to find the relationship between nurses' perceptions of pay equity and their levels of commitment.

The current study finding revealed that there was a positive significant correlation between payment and normative commitment, as well as, total level of commitment. The same was found by Young¹⁴. This result is expected and can be due to the nature of employment and recruitment systems in Egypt, especially in Governmental organizations, the employees are tenure, who could not leave the organization at any time, that's why even when nurses are dissatisfied with their current job they cannot leave it. This finding is in contrast to Ramamoorthy and Flood (2004)²⁷ who suggested that fair payment may result in increasing affective commitment but may not evoke moral obligation or loyalty.

The current study findings revealed that the majority of nurses perceived their payment as unfair. On the other hand, they were nearly equal in their levels of commitment. This finding was expected as payment and salaries in Egypt are low as compared to other countries. This could be seen clearly in the

strikes that were done in many organizations including health care systems especially physicians and nurses. Another cause could be that the perception of unfair pay is that the relative pay scale for nurses is similar throughout Egypt. This suggests that pay unfairness is not so much an organizational problem as an occupational problem. Also, a general complaint that although there is an annual report that measure nurses' performance, the evaluation grade is not a factor that decides the increase or decrease of pay. El-Noshokaty (2004)²⁸ wrote that in some government hospitals, nurses may get only 90 piasters for double shifts but in some area in Egypt, nurses may work for six months without extra payment because of shortage of funds. On (2008), Egypt News stated that there is an anticipated increase in nursing salaries scheduled for 2008²⁹. Although these feelings of pay inequity, the commitment level was neither high nor low and this also is not surprising, this might be attributed to the humanistic nature of the nursing profession, whereby nurses feel they are committed to their mission regardless the compensation for achieving their duties and their satisfaction with this compensation.

The current study results found that more experienced nurses differ significantly than those less experienced in relation to their pay. This means that nurses who are more experienced perceived their pay more favorable than those less experienced ones.

This finding is not surprising and could be attributed to that nurses' salaries increase with their years of experience, which in turn lead to their satisfaction and feeling of pay equity. Also, the majority of highly experienced nurses probably are holding administrative position and higher in their grades and this factor allow them to take extra payment than less experienced nurses.

Furthermore, highly experienced nurses had more organizational commitment than those less experienced nurses. This finding also is expected and could be due to the much of time spent in the work, the much social relation developed and the better relationship formed which make it hard for nurses to leave their work or to be less committed. Another cause could be the more experienced nurses are those older nurses who consider it very difficult to leave their jobs and move to another job losing their current position may be as senior nurse, or head nurse in a unit. The same was found by Ingersoll (2002)³⁰ who stated that Nurses who have been employed at a hospital for a longer period of time, and are making more money because of their length of service, are less likely to leave. Many researchers found that the antecedents of organizational commitment have generally been older age, longer tenure, and higher education of the employee, well-developed group leader relations, and favorable work characteristics³¹⁻³⁴. Also, The current study findings are in agreement with earlier studies which found that age is a predictor of organizational commitment^{31, 35-37}. Potential explanations for the observed association are that older workers might have developed a high level of autonomy in their job, and they may have other advantages of long-term tenure, such as longer annual leaves and higher pay.

5. Conclusion:

The current study findings concluded a positive significant correlation between pay equity and normative commitment (NC), as well as, total commitment level. The majority of nurses perceived their pay as unfair, while they were nearly equal in their level of commitment. The more experienced nurses differed significantly in relation to their perceived pay and level of commitment than less experienced nurses.

6. Recommendations:

Based upon the findings of this study, the following recommendations are written:

1. Head nurses should improve nurses' working conditions especially newly recruited nurses to increase their commitment level.

2. The current payment scale should be ameliorated for all Egyptian employees and this is a requirement from the next Parliament.
3. The hospital nursing director and head nurses should strive for nurses' rights and give them the extra payment required for the job done.
4. Head nurses should support their subordinates and help them to attain educational programs.
5. Educational programs should be passed by nurses and if passed there is an extra payment.

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