Talent Management Training Program and its Effect on Leadership Effectiveness among Nurse Managers

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Abstract

Background: The 21st century marks a novel period in the employment landscape where the importance of the explicit value of talent as a competitive weapon rises. HR executives are frequently held liable for the successful execution of talent management programs, while it is the line managers who really apply this method on a day to day basis. Aim: this study aimed to measure the effect of application of talent management training program on nurse managers' leadership effectiveness. Design: aquasi-experimental research design was used. Setting: this study was conducted at Ain Shams University Hospitals. It included the five main hospitals namely, Ain Shams University Hospital, El demerdash Hospital, Obstetric and Gynecological Hospital, Pediatrics Hospital, and Academic Heart Institute. Subjects: sample size was 80 nurse managers included in this study. Tools of data collection: three data collection tools were used namely; knowledge questionnaire sheet, talent management questionnaire and leadership effectiveness scale. Results: one quarter of nurse managers had satisfactory knowledge in the pre-intervention phase while improved in the post intervention phase and slightly decline in the follow up phase. No one of the nurse managers had high level of talent management practice in the pre-intervention phase while improved in the post intervention phase and slightly decline in the follow up phase. Total leadership effectiveness level was improved markedly throughout program phases. Conclusion: the application of the training program had great effect on enhancing nurse managers' knowledge and practice regarding talent management, total leadership effectiveness level was improved markedly throughout program phases. Recommendations: Encourage the complete influence of nurses and the other workforces in organization to donate their varied talent on the collective journey to talent-advantage.

Key words: - nurse managers- leadership effectiveness, and talent management.

Introduction

Globalization transformed the employment landscape where talent becomes a new differentiator. It seems that handling and retentive talent is the mainresolute task that organizations are frontingrecently. Hence, application of talent management approaches, mostlyappealing talent management practices has become a lifeguard to

recallworkers in the organizations (Dalayga & Baskaran, 2019). Talent management is a regular technique whereby both persons and main positions are identified, rather than solely on the individuals identified as talent. Talent management is reinforced differentiated HR construction. The HR building denotes to a set of HRM plans, rules and performs exactly for the resolution of talent management (Salau et al., 2018). Talent management is

assumed for the resolve of easinggeneral organization presentation or competitive benefit (Khoreva & Vaiman, 2019).

Only rare organizations make greatlabors to keep talented persons of their team (Avquipa et al., 2018). Talent is the ownership of astrangeability and individual knowledge. Talent management is aseparate and unit-level concept. It is reflected as a vital feature of human source management as it upsets employment, placement, and holding of workers within an organization. Talent management is a several practicesmarvel which focuses on workers irrefutableabilities well as as processes that search for those distinctive workers (McCracken et al., 2017).

Talent management included the actions and methods that include the organizedmagnetism, identification. growth, appointment, holding. disposition of those talents which are of specific value to an organization (Claus, 2019; Reiche. Lee. Allen, 2019). Talent management has arisen as one of the loosestmounting disciplines in the management arena (Thunnissen & Gallardo-Gallardo, 2017). Only few institutionsmake largerole to find and keep talented persons of their staff (Ayquipa et al., 2018). Skills of workforces can be reinforced by exercise, recruitment, return practices, and performance evaluation (Delery & Gupta, 2016).

Talent managementtells to control programs in that a talent can be fused with management persons, hence guides an organization to healthiercreation and business ranks in terms of worker relationships (Unseem, 2011). Leadership is a method that affects and realizes goals. Thus, leadership is the ability of the individual toaffect a group of other people in order to do something that is

expressive to them (Baker & Zomorodi, 2018). Leadership Efficiency is the aptitude to reach the necessaryresources to achieverecognized goals of the organization by saving the collaboration of others". Leadership effectiveness has been labeled also as connecting a level of sureness in the knowledge, skills, and abilities with principal others (Abou, 2017).

Leadership effectiveness is the accomplishment of the recognized objectives of cooperative action, which initially depends influence.Furthermore leadership effectiveness essential for is organization's success (Gandofli Stone, 2017). Effective nurse managers thought to be thinkers with a vision of the longer-term disposition to create it reality, discover new wavs in which accommodate with work problems. undertook reasonable risks to realize work objectives. wanted out new initiatives and work opportunities. suggest change and improvements at work, see the large image and had a clear sense of where the organization need to be, work toward the accomplishment of ever-greater challenges, incorporate new knowledge and understanding into work performance (Aktas et al., 2016).

Leadership effectiveness would increaseadministration's skill to attain its purposes, to keep its attractiveness, and to please social tasks given the paramount status of leadership in groups (Gunawan, Aungsuroch and Nazliansvah, 2018). Today, actual nurse managers stirring and encouraging others, sponsoring a positive work setting, accepting and dealingwith emotions. building bonds. communications and power (Adiguzel, 2019). Associations needs new utensils to manage their social resources, the HR section and the HR managers require to become elaborate in tacticalmatters, and the middle managers who are accountable for the workers, will have to take a larger responsibility for the talent managing processes in their regular work (Wikström & Martin, 2012).

Significance of the study:

Healthcare industry becomes very critical and challenging due to the increasing people of aged residents who requirehealth related attention. Hence, keeping talents in this industry which is wellcategorized as a technical industry is of paramount position to the healthcare associations since fitness is a concern to facility everybody and of quality amenities has become achievement formulation to many associations to stay modest in the marketplace (Salau et al., 2018). It should be comprised in business tactics of any institution, and the both top and middle management levels should join in talent management practices (Niedzwiecka, 2016). Therefore, talent attitude should be established within the complete firm (Kehinde, 2012).

Aim of the study

The study aimed to measuring the effect of application of talent management training program on nurse managers' leadership effectiveness

Research Hypothesis:

Nurse Managers' leadership effectiveness will be improved after implementation of the program.

Subjects and methods

Technical Design:

It includes the research design, study setting, subjects and tools of data collection.

Research design: A Quasi experimental research design was used.

Study setting

The study was implemented at Ain Shams University Hospitals, in all departments and critical care units. It included the five main hospitals namely, Ain Shams University Hospital, El demerdash Hospital, Obstetric and Gynecological Hospital, Pediatrics Hospital, and Academic Heart Institute.

Subjects: A simple random sample of 80nurse managers out from total of 120 working in the above mentioned settings. A proportionate stratified random sample was obtained from nurse managers at different university hospitals as follow; 31nurse managers from Ain Shams University Hospital,21nurse managers from El demerdash Hospital,11nurse managers from Obstetrics and Gynecology Hospital, 9nurse managers from Pediatrics Hospital, 8nurse managers from Academic Heart Institute.

Sample size: To calculate the study sample size the researchers use this formula.

$$n = \frac{2 \sigma^{2} (Z_{\beta} + Z_{\alpha/2})^{2}}{\text{difference}}$$

Sample size.

N=

 σ^2 = **Standard deviation** of the study variable.

 Z_{β} = The desired power (typically .84 for 80% power).

 Z_{α} = The desired level or statistical significance (typical 1.96).

Differences= **Effect size** (the differences in means).

Tools of data collection

Data for this study were collected using three tools namely:

Self-administered knowledge questionnaire:

To assess nurse managers' knowledge regarding talent management (pre/posttest). This questionnaire was developed by the researchers based on (Oehley, 2007, King, 2018 and Thunnissen& Gallardo-Gallardo, 2017).It consists of two parts as follow:

Part 1: socio-demographic sheet: to gather socio-demographic data such as age, sex, marital status, and attendance of training programs.

Part 2: It consisted of 20MCQ categorizedintoseven subgroups to assess managers' knowledge about: (definition and importance of talent management (2 questions), Conditions for successful talent management questions), Principles and factors of talent management (4 questions), Job strategies and tools for the detection of talented(5 questions), Talent managementinputs (2 questions), Talent management processes (3questions), Talent Management outputs (2 questions).

Scoring system:

The correct response was scored (1 score), the incorrect response was scored (zero), the total grads for the knowledge sheet was (20 scores), the total grads for every subgroup were calculated, and then the total score for the entire questionnaire was calculated for everynurse manager. The nurse managers' knowledge

levelcategorizedsatisfactory if the percent score is 75% or more, while unsatisfactory if the percent score is less than 75%.

2-Talent management questionnaire for assessing talent management practices among nurse managers. This questionnaire developed by (Oehley, 2007).It consisted of (43) items divided into (8) dimensions as the following:

- Displaying a talent management mindset (4 items).
- Attracting and recruiting talent (5 items).
- Identifying and differentiating talented employees (6 items).
- Developing others (6 items).
- Building and maintaining positive relationships (6 items).
- Providing meaningful and challenging work (5 items).
- Remunerating and rewarding fairly (6 items).
- Managing work-life balance (5 items).

Scoring system

Responses to the items will be on a five point Likert scale (never 1, rarely 2, sometimes 3, often 4, always 5). Scores of sub-scales were summedup and the total score was divided by the number of the items, giving a mean score for the part. These scores were transformed into a percent score. It consideredlow if the percent score was less than 60%, moderate from 60% - <75% and high if 75% or more.

3-Leadership effectiveness questionnaire:

It was developed by (Guillen and Florent, 2011) and modified by the researchers. It aimed to assess leadership effectiveness among nurse managers. It contained fifty items grouped under six dimensions as follow:

- Envisioning (9 items).
- Energizing (8 items).
- Designing and aligning (6 items).
- Rewarding and feedback (8 items).
- Team-Building (11 items).
- Empowering (8 items).

Scoring system:

Responses were measured on 5 point Likert scale ranging from (1= strongly disagree) to (5 = strongly agree). Scores were summed up and the total grads were divided by the number of the items, giving the mean score for the part. The scores were transformed into percent score. Leadership effectiveness categorized high if the total score was >75% and moderate if the subjects had total score from 60 to 75%, and low level if the total score was< 60%.

Operational Design:

It included three phases namely preparatory phase, pilot study, and the fieldwork.

A-Preparatory phase:

It included reviewing past, current, local and international literature and theoretical knowledgeabouttalent management and leadership effectiveness

from the perspective of nurse managers using books, articles, internet, journals to get familiar with the research problem and to design the program.

Tools validity:

The tools were studied by a panel of 5 experts (2 professors in nursing administration, Cairo University and 2 professors in nursing administration, Ain Shams University, and one professor in nursing administration, Zagazeg University)to appraise its face and content validity. The experts revised the tools for its content, clarity, simplicity, relevance, completeness and suitability. Minor changes were done and then the final forms of the tools were designed.

Tools reliability:

Reliability of tools was done by Cronbachalpha test which was 0.90 for the knowledge questionnaire, 0.94 for the talent management tool and 0.92 for leadership effectiveness questionnaire.

B-Pilot study

A pilot study was conducted after an official approvaldecided from the dean of Faculty of Nursing, Ain Shams University to the directorsthe hospitals. It included eight nurse managers who represent 10% of total study sample; it was conducted to evaluate the simplicity, practicability, legibility, understandability, feasibility of the tools, it was also used to find the likely problems. According to the results of the pilot study, no modifications So. those were done. nurse managersincluded in the main study subject.

C-Field work

Once necessary official permissions to conduct the study were

obtained, the fieldwork was started. The researcher met with the nursing director of the hospitals to determine the suitable time to collect the data and confirm the days and times to implement the program. The study was conducted through the following four phases:

Preparatoryphase:

It includedrevising of the recent related literatures to design tools for data collection prepare handoutsconcerned to talent management. The aim of the study wasclarified to the study participants prior to data collection, as well as their consent to participate in the study were obtained also. The data collection tools were distributed to nurse managers to complete it by themselves in to assess nurse managers' knowledge regarding talent management to identify their learning needs.It took participant approximately minutes to complete the questionnaire. The filled forms were then collected and verified bv the researcher completeness. The researcher pointed out the required knowledge regarding talent management and hand out for the program was done. The schedule was set and the place to carry out the program was booked, after consultation with the nursing director, and coordination with the head of staff development department. The audiovisual aids as data show also booked.

Implementation phase:

The program was implemented to nurse managers who working at Ain Shams University Hospitals. The program sessions were conducted over a period of 15weeks starting from September 2018 till the end of December 2019 in the morning shifts. The total program was 18 Hours offered in two days weekly; started from 10am to 1pm.

Each session conducted through 3 hours; one hour for theory and two hours for practice. The program classes were conducted the training development center, which affiliated to Ain Shams University Hospitals. All nurse managers were divided into 5 groups according to their hospital, and group received the each sessions separately to minimize interruption of nurse managers' work. The 5 groups classified as the following schedule: The from Eldemerdash first group was hospital, the second was from Ain Shams University, the third was gynecology hospital, the fourth was from Pediatrics Hospital and the last group was from the Academic Heart Institute.In the first session the researcher explained. program aim, plan, content outlines and method of program evaluation. Pre-test was done to assess knowledge related to (concept and importance of talent management, conditions for successful talent management, and principles of talent management and factors of talent management). While, the practical parts included strategies and tools for the detection of talented, talent management processes, and talent management inputs and outputs. Sessions were conducted using lectures and small group discussions for theoretical part, while for the practical part, demonstration and redemonstration, setting objectives, and real oftalent simulation management practiceswere used. The actual field work of the study lasted for four months from the beginning of September 2018 to the end of April 2019.

Evaluation phase: This phase performed immediately after implementing the program using the same data collection tools used in the assessment phase for measuring knowledge,talent management practices and leadership effectiveness among nurse managers. It took each

participant approximately 45 minutes to complete the questionnaire.

Follow-up phase: The same process was repeated three months after implementing the program to assess its lasting follow-up effectiveness. This was done following the same procedures and using the same tools as in the posttest. It lasted from the beginning to the end of July 2019.

Ethical Considerations:

• Verbal consent was taken from the participants after informing them about the aim and tools of the study. The confidentiality of the collected data was curtained, and the participants had the right to withdraw at any time. The participants were also assured of anonymity, and that data will only be used for the purpose of the study. The study protocol was approved by the research ethics committee in faculty of nursing, Suez Canal University. The collected data were used for research purposes only and stored in password protected computer.

Administrative Design:

An authorized letter requesting agreement to implement the study was

sent from the Faculty of Nursing Ain Shams University to the general director of Ain Shams University Hospital. The letter included the aim of the study and photocopy from data collection tools in order to get the permission and help for collecting data. Then the general director sent letter for each nursing hospital director to facilitate the researcher mission.

Statistical Design:

Data entry was done using SPSS V17 computer software package.Data were offered using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means \pm SD for quantitative variables. Paired t-testwas used to compare between two means in the same studied group pre and post intervention & between two means post intervention and during follow up phase. Pearson correlation co-efficient (r) was utilized to evaluate of the inter-relationship among quantitative variables. In order to recognize the independent predictor of talent management score, multiple linear regression analysis was used. confidence level chosen for the study was 95%. Statistical significance was considered at p value < 0.05.

Results

Table (1): Distribution of study sample demographic characteristic (n= 80).

	Nurse managers (80)				
Socio demographic characteristic	Frequency	Percent			
Hospital					
Ain Shams University Hospital	31	36.1			
El demerdash Hospital	21	23.7			
Pediatrics Hospital	9	11.3			
Academic Heart Institute	8	9.3			
Obstetric and Gynecological Hospital	11	12.4			
Age (in Years)					
26-30	17	21.2			
31-40	45	56.3			
>40	18	22.5			
$Mean \pm SD$	37.63±5.87				
Range	25-5	50			
Gender	3	7.5			
male	37	92.5			
female	37	92.3			
Nursing study certificate	19	23.75			
Diploma	4	23.73 5			
Technical Institute	30	37.5			
Bachelor	27	33.75			
Master Degree	21	33.73			
Years of experience					
< 10years	18	22.6			
10- 20 years	45	56.2			
>20years	17	21.2			
Mean ± SD	12.19±	4.82			

Table (1): Socio demographic characteristic of nurse managers in the study sample. It shows that 36.1% of the study subjects were from Ain Shams University Hospital, followed by 23.7% from El Demerdash Hospital, and Academic heart Institute represents 9.3%. The mean and standard deviation for study subjects' age were (37.63±5.87) as 56.3 % of the study sample was from31-40 years old. Moreover, majority (92.5%) of them were females. The sample included all the study levels as follow, 33.75% was master degree, 23.75% was diploma nurses, 37.5% was Bachelor, and 6.25% of the sample werehad technical diploma.Slightly more than half (56.2%) of them had experience from 10-20 years with mean 12.19±4.82.

Table (2):Mean	n scoresof nurse	managers'	knowledge	regarding	talent	management
throughout program pl	hases.					

		1	Mean score		
	Pre	Post	Follow up	Paired Sa	mples Test
Items	Mean±SD	Mean±SD	Mean±SD	Pre& Post (t1 P- value	pre& follow up (t2 P- value
Concept and importance of talent management	3.63±0.66	4.94±0.74	5.09±0.72	11.58 <0.000**	13.07 <0.000**
Conditions for successful talent management	4.05±0.62	6.23±1.11	7.03±1.08	10.82 <0.000**	11.55 <0.000*
Principles and factors of talent management	4.93±0.76	7.15±0.88	7.34±0.85	11.13 <0.000**	12.28 <0.000**
Strategies and tools for the detection of talented	7.33±1.39	11.29±1.30	11.43±1.27	11.20 <0.000**	12.89 <0.000**
Talent managementinputs	4.95±0.81	6.93±0.99	7.19±1.00	12.67 <0.000**	14.93 <0.000**
Talent managementprocesses	5.20±0.80	8.31±1.53	8.12±1.03	16.61 <0.000**	15.98 <0.000**
Talent Managementoutputs	4.89 ± 0.78	6.77±1.11	7.51±4.68	11.42 <0.000**	13.46 <0.000**
Total knowledge regarding talent management	34.98±2.57	51.01±5.74	53.61±5.33	17.28 <0.000**	19.91 <0.000**

^(*) Statistically significant at p<0.05 (**) High Significant at P < 0.01

Table (2): illustrates that, nurse managers' knowledge regarding talent management items mean scores was low before implementing the program. Moreover, their mean scores increased markedly throughout program phases. Also, there were highly statistically significant differences between all items as well as total knowledge regarding to talent management throughout program phases.

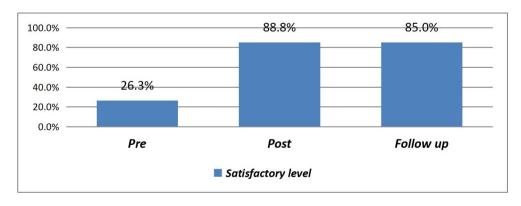


Figure (1): NurseManagers' total knowledge regarding talent management throughout program phases (n= 80).

Figure (1): shows significant improvement in total nurse managers' knowledge regarding talent management, 26.3% of the nurse managers had satisfactory knowledge in

the pre-intervention phase while improved in the post intervention phase 88.8% and slightly decline in the follow up phase 85.5%.

Table (3): Mean scores of nurse managers' talent management practices throughout program phases

		i	Mean score		
	Pre	Post	Follow up		
Talent management dimensions	Mean±SD	Mean±SD	Mean±SD	Pre& Post (t1 P- value	pre& follow up (t2 P- value
Displaying a talent management mindset	5.46±0.79	16.84±2.28	16.99±2.12	42.15 <0.000**	45.01 <0.000**
Attracting and recruiting talent	6.60±0.99	19.90±2.90	19.28±2.69	38.36 <0.000**	39.60 <0.000*
Identifying and differentiating talented employees	7.90±1.14	24.39±2.92	25.29±2.78	47.63 <0.000**	46.22 <0.000**
Developing others	8.00±2.04	23.73±4.58	24.39±3.95	28.31 <0.000**	32.63 <0.000**
Building and maintaining positive relationships	9.34±2.87	25.73±3.76	24.30±3.93	28.94 <0.000**	28.72 <0.000**
Providing meaningful and challenging work	8.56±2.41	18.73±3.60	19.39±2.87	22.15 <0.000**	28.09 <0.000**
Remunerating and rewarding fairly	8.01±1.42	21.60±5.26	21.65±4.68	23.48 <0.000**	26.13 <0.000**
Managing work-life balance	7.00±1.23	15.78±3.12	15.87±2.73	25.88 <0.000**	29.95 <0.000**
Total talent management	60.87±7.06	167.68±21.99	170.48±18.43	27.02 <0.000**	32.26 <0.000**

^(*) Statistically significant at p<0.05 (**) High Significant at P < 0.01

Table (3): illustrates that, nurse managers' talent management practices mean scores was low before implementing the program. Moreover, practices mean scores increased markedly throughout program phases. Also, there were highly statistically significant differences between all talent management dimensions as well as total talent management practices throughout program phases.

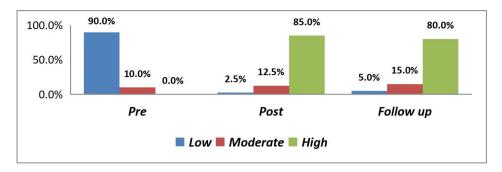


Figure (2): nurse managers' total talent management level throughout program phases (n= 80).

Figure (2) shows significant improvement in total nurse managers' talent management practice, no one of the nurse managers had high level of practice in the preintervention phase while improved in the post intervention phase 85.0% and slightly decline in the follow up phase 80.0%.

Table (4):Mean scoresofnurses managers' leadership effectiveness throughout program phases.

	Mean score						
	Per	Post	Follow up	Paired Samples Test			
leadership effectiveness Items	Mean±SD	Mean±SD	Mean±SD	Pre& Post (t1 P- value	pre& follow up (t2 P- value		
Envisioning	15.39±3.43	39.48±3.20	39.78±3.00	40.96 <0.000**	43.48 <0.000**		
Energizing	14.15±3.34	37.71±2.67	36.95±3.60	46.45 <0.000**	39.55 <0.000*		
Designing and Aligning	11.78±2.75	26.99±2.754	27.60±1.73	39.04 <0.000**	35.15 <0.000**		
Rewarding and Feedback	14.33±3.16	36.99±2.20	35.96±2.63	46.96 <0.000**	45.97 <0.000**		
Team-Building	21.32±4.61	50.33±2.73	49.73±3.75	48.10 <0.000**	37.33 <0.000**		
Empowering	14.87±3.75	35.89±2.42	36.08±2.67	43.36 <0.000**	35.59 <0.000**		
total leadership effectiveness	91.74±12.38	227.36±917	226.10±14.13	55.67 <0.000**	53.55 <0.000**		

^(*) Statistically significant at p<0.05 (**) High Significant at P < 0.01

Table (4): displays that, there was highly statistically significant improvement in all mean scores as well as total mean score of nurse managers' leadership effectiveness throughout program phases.

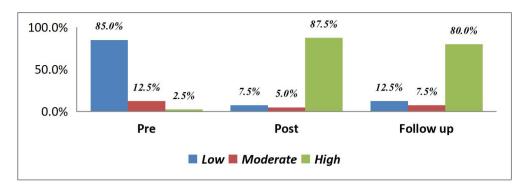


Figure (3): nurse managers' total leadership effectiveness level throughout program phases.

Figure (3) shows that, minority (2.5%) of nurse managers had high total leadership effectiveness level before implementing the program. As observed throughout program phases the high total leadership effectiveness level was improved markedly (87.5%, 80.0%) respectively.

	Total talent management score					
Parameter	Pre		Post		Follow up	
	r	P-value	r	P-value	r	P-value
Total knowledge regarding talent management	0.248	<0.05*	0.345	<0.05*	0.358	<0.05*
Total leadership effectiveness score	0.385	<0.000**	0.620	<0.000**	0.506	<0.000**

(*) Statistically significant at p<0.05(**) High Significant at P < 0.01

Table (5): indicates that there was highly statistically significant positive correlation between total knowledge, total talent management and total leadership effectiveness among nurse managers' score throughout program phases **Table (5):** Correlations between total knowledge, totaltalent management and total leadership effectiveness score throughout program phases.

Table (6): Best fitting multiple liner regression models for the score of total talent

management score immediate post training program.

Model	Un standardized Coefficients		Standardized Coefficients	T	Sig.
	В	Std. Error	Beta		
(Constant)	128.786	27.624		4.662	.000
age	1.426	.753	.412	1.919	.059
qualification	-4.261	3.710	165	988	.326
Experience	1.969	.829	.576	2.238	.028
Total knowledge regarding talent management	.4601	.393	.130	3.528	.001

R= 0.42 Model ANOVA: F=2.976,<0.01**

b. Dependent Variable: Total talent management score.

a. Predictors: Age, qualification, Experience, total knowledge regarding talentmanagement score.

Table (6), displays the Best fitting multiple linear regression model for the score of total talent management immediate post training program. As the model shows, head nurses' age, experience, and total talent management knowledge score were positive dependent predicator for the score of total talent management immediate post training program. As indicated by the value of R; they explain 42% of the variation of emotional intelligence score.

Table (7): Best fitting multiple liner regression model for the score of total talent management score follow up training program.

Model	Un standardized Coefficients				Standardized Coefficients	T	Sig.
	В	Std. Error	Beta				
(Constant)	138.996	22.534		6.168	.000		
age	1.088	.615	.376	2.034	.041		
qualification	-2.443	3.026	113	807	.422		
Experience	1.869	.676	.654	2.764	.007		
Total knowledge regarding talent management score	.490	.320	.165	3.865	.000		

R= 0.49Model ANOVA: F=3.849.<0.01**

Table (7), displays the Best fitting multiple linear regression model for the score of total talent management immediate follow up training program. As the model shows, head nurses' age, experience, and total talent management knowledge score were positive dependent predicator for the score of total talent management immediate follow up training program. As indicated by the value ofR; they explain 49% of the variation of emotional intelligence score.

Discussion

Concerning nurse managers' knowledge regarding talent management, the current study revealed that there is a statistically highly significant improvement managers' in nurse knowledge regarding talent management in the post and follow up phases compared with their pre intervention phase. This result might be due to the positive effect of the training program on nurse managers' knowledge. This finding is in agreement with Obeidat, et al., (2018) who studied the effect of talent management organizational on effectiveness in healthcare sector and found that more than half of the significant participants reported improvement in talent management knowledge, in the same line, this finding is agreement with **Ogbari**, et al., (2018) who studied talent management as a determinant of firm performance: A conceptual approach, and stated that talent management knowledge can be improved through teaching and training of employee that affected their future performance.

Concerningnurse managers' practice regarding talent management, the current study revealed that there is a highly statistically significant improvement in nurse managers' practice regarding talent management in the post and follow up phases compared with their pre intervention phase. This result might be due to due to the fact that nurse managers acquired talent management skills as an effect of the training program that prove nurse managers' abilities for

a. Predictors: Age, qualification, Experience, total knowledge regarding talent management score.

b. Dependent Variable: Total talent management score.

change through accepting advices from their trainers.

In the same line, this result is in accordance with the study done by Venkatesh (2017)who studied of integration talent management framework for healthcare performance-A strategic approach and found majority of health care providers showed good talent management behaviors after integrating the talent management framework. Moreover, Mukwevi (2016) who conducted a study entitled "An investigation of the influence of talent management practices on retention of healthcare professionals at Kiiabe Mission Hospital, Kiambu " stated that talent management can be acquired easily through good planning and continuous efforts of the hospital and produce the desired outcomes.

Regarding nurse managers' leadership effectiveness, the current study reported that there is a highly statistically significant improvement in nurse managers' leadership effectiveness in the post and follow up phases compared with their pre intervention phase. This result might be due to the applicability of improving nurse managers' leadership effectiveness and readiness of them to apply the effective leadership styles and approaches.

Similarly. this result congruent with the study done by Hariyati and Ungsianik (2018) who stated that more than two thirds of head reported leadership nurses high effectiveness level after applying active learning approaches. In the same line, this result is in agreement with Bakshawan, et al., (2016) who conducted a study entitled "Situational Leadership Emotional Intelligence Contribution to Promote Nursing Leaders Effectiveness" indicated and that leadership

effectiveness is very crucial for all health care providers especially head nurses to manage their daily activities and can be learned through different strategies.

Regarding the correlation between talent management scores of nurse managers and their knowledge and leadership effectiveness, the current study revealed that there is a highly statistically significant correlation between total talent management scores of nurse managers and their total leadership scores, also, there is a statistically significant correlation between total talent management scores of nurse managers and their total knowledge regarding talent management.

Regarding best fitting multiple liner regression model for the score of total talent management score immediate post and follow up training program, the current study reported that managers' age, experience, and total talent management knowledge score were positive dependent predicator for the score of total talent management immediate post and follow-up training program. This result might be due to age and experience has direct effect on the ability of nurse managers in achieving best scores. This result is in agreement with the study done by Dahshan, Keshk, andDorgham (2018) found that nurses experiences had direct positive relation with their talent management organization performance. Also, Khor (2017) who found that there is a significant relation between participants' ages and their talent practice and knowledge management.

Conclusion

The results of this study concluded that application of the training program had positive impact on enhancing nurse managers' knowledge and practice regarding talent management and alsototal leadership effectiveness level improved markedly throughout program phases. There was highly statistically significant positive correlation between total knowledge. totaltalent management and total leadership effectiveness among nurse score throughout program managers' phases.

Recommendations

- Top management must communicate the vision of the organization to nurse managers in a way that is consistent with their vision.
- Providing training programs for newly hired nurse managers to facilitate theirinduction and enhancing their leadership effectiveness.
- Providing talent management programs and workshops for newly hired nurse managers in the organization.
- Purpose and meaning of talent management should be well informed to gain participation of its central actor the talent themselves.
- Encourage completeinvolvement of nurses and other health care providers to donate their varied talent on the cooperative journey to talent-advantage.

Further researches are suggested as:

- The influence of organizational support on nurses' talent management.
- The effect of talent management on organizational performance
 - Financial support
 - No funding was received
 - Conflict of interest
 - No.

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