Effect of Educational Program about Authentic Leadership and Mindfulness Factors on Head Nurses Practice Self – Evaluation

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Abstract

Authentic leadership is an emerging perspective in the field of leadership focuses on leaders values and beliefs . Components of authentic leadership were self- awareness, balanced processing, relational transparency, and an internalized moral perspective. Mindfulness perspective permits head nurses to be fully present, aware of themselves and their impact on other people, and aware of their reactions in stressful situations. Mindfulness include five factors; observing, describing, acting with awareness, non-judging of inner experiences and non-reactivity to inner experiences. Authentic leadership and their mindfulness if combined together create head nurses that have clearer, extra focused thinking, and growth mindset that help subordinates improve and grow . So , **the aim of present study** is to determine the effect of educational program about authentic leadership and mindfulness factors on head nurses practice self – evaluation. Study was conducted at two hospitals affiliated to Ministry of Health namely Elmenshawy General Hospital and Kafer El sheikh General Hospital. All (70) head nurses working at different clinical departments. **Three tools** were used including head nurses self-evaluation for authentic leadership, head nurses self-evaluation for mindfulness factors and structured questionnaire to assess head nurse knowledge. **The result** of present study revealed that preprogram half (50%) of head nurses had high level of total authentic leadership, improved statistically significant immediate post program to be (65.7%). Preprogram low percent 8.6% of head nurse had high level of total mindfulness level improved to be 98.6% immediately post program. Preprogram no one had good level of total knowledge, changed to be all and 98.6% of head nurses got good level respectively. Immediate and three months post program. **Recommendation** : Authentic leadership and mindfulness educational training programs should be provided periodically for head nurses to keep them updating their essentials knowledge and practis regarding authentic leadership and mindfulness

 Key words: head nurses , authentic leadership , mindfulness practice

Introduction

Leaders of today are expected to value the human resources of their organizations and provide an environment that promotes individual contributions to the organization's work[1]. A head nurses should be skillful at coordinating human and material resources to meet goals and objectives of the organization [2]. To do their duties ,they must promote a growth of mindset, adhere to a code of ethics, being open, transparent and honest in their interactions, genuine and instill a work culture of personal growth, clarity , accountability, and innovation [3].

Authentic leadership is an approach to leadership that emphasizes building the leader's legitimacy through honest relationships with followers which value their input and are built on an ethical foundation[4]. It starts with the head nurses' awareness that allows them to build positive relationships and inspire and encourage employees in the right ways [5]. The authentic head nurses include four dimensions of self- awareness, balanced processing, relational transparency, and an internalized moral perspective . It suggest genuinely desire to understand their own leadership in order to serve others more effectively[6].

Self-awareness is critical for head nurse to grow as a leader, and strengthen other components of authentic leadership [7]. Self-awareness is the ability to recognize and acknowledge head nurse strengths and weaknesses[4]. Balanced processing is the capacity of head nurse to openly discuss and evaluate information and consider others' opinions before choosing a course of actions[8]. Relational transparency is being open and honest in sharing of information about one's thoughts and feelings without hidden agendas [9]. Also, head nurses express and exhibit true self to subordinates in expressing of their genuine beliefs and feelings[10,11]

Mindfulness enables head nurses to step back and contemplate situations objectively before taking action in nonjudgmental way consequently, the experience of moment is unfolding [12]. Mindfulness include five factors; observe is the first factor measures noticing sensory experience directly, without labeling it, reacting to it or judging it[13].

describing is labelling internal experiences with words[14].

Acting with awareness which involves focusing on one activities at a given moment as opposed to behaving mechanically while attention is focused elsewhere[15]. Nonjudging of inner experience refers to taking a no evaluative stance toward thoughts and feelings[16]. Non reactivity to inner experience it is a head nurses ability to stay calm and remain objective when they face situations or thoughts they might disturb their emotional stability[17].

Head nurses self evaluation serve as evaluation function in training programs , through which head nurses evaluate the effectiveness of their practice and determine improvements in self knowledge , aid in developing self awareness and cause a desirable behavior change [11] . Self-evaluation helps head nurses to reflect on their strengths and weaknesses as well as provide directions for improvements. The concept of authentic leadership style and mindfulness practice has strong impact on head nurses self evaluation. The present study aims to determine the effect of this educational program about authentic leadership and

mindfulness factors on head nurses practice self – evaluation at Elmenshawy General Hospital and Kafer El sheikh General Hospital.

Aim of the study

The aim of this study was to determine the effect of educational program about authentic leadership and mindfulness factors on head nurses practice self – evaluation.

Research hypothesis

Head nurses authentic leadership and mindfulness practice self evaluation will be improved after program.

Subjects and Method

Study design

Quasi experimental research design was used to achieve the aim of present study. Such design fits the nature of the problem under investigation

Setting

The study was conducted at two hospitals affiliated to Ministry of Health namely El menshawy General Hospital and Kafer El Sheikh General Hospital.

Subject

The study subjects consisted of all (70) head nurses working at different clinical departments , including emergency ,internal medicine , surgery , pediatric,

obstetric , orthopedic, urology , intensive care units, and operating room. Head nurses included in the study from Elmenshawy General hospital were 30 and from Kafer Elsheikh general hospital were 40 .

Tools

To achieve the aim of present study the data was collected using the following tools:

Tool I : Head nurses Self-Evaluation for Authentic Leadership

This tool developed by Northouse (2010) [11] , and was modified by researcher to assess head nurses authentic leadership practice, it included two parts:

Part (1): Subject characteristics such as hospital name, gender, age , marital status, level of education , years of experience.

Part (2): Head nurses Self-Evaluation for Authentic Leadership included four subscales as follows:-

- Self-awareness subscale
- Internalized moral perspective subscale .
- Balanced processing subscale
- Relational transparency subscale
- **Scoring system**

The responses for questions was measured by 5 points Likert Scale ranging from strongly agree (5) to strongly disagree (1).

-Levels of authentic leadership presented as follows:

- High level of authentic leadership
  >64-80% = 52 - 64 score
- Moderate level of authentic leadership
  >48-64% = 39 - 51 score
- Low level of authentic leadership
  >32-48 % = 26 - 38 score

Tool II: Head nurses self Evaluation for Mindfulness factors

This tool developed by Baer et al (2006) [9] , used by Williams et al (2014) [12], Crane et al (2016)[13] and was modified by researcher **to assess head nurses mindfulness practice.** Included five subscales as follows:-

- Observing factor
- Describing factor
- Acting with awareness factor
- Non-judging of inner experience factor
- Non-reactivity to inner experience factor
- **Scoring system**

Responses for questions was measured by 5 points

Levels of mindfulness represented as follows :

High level of mindfulness >64-80 %

Moderate level of mindfulness >48-64 %

Low level of mindfulness

Scores inthe upper high ranges indicated stronger mindfulness, whereas scores in the lower ranges indicated weaker mindfulness.

Tool (III): Structured questionnaire to assess head nurse knowledge

This tool was developed by the researcher guided by Baer et al (2006) [9] , Walumba et al. (2008)[4] , Lesia Yasinski (2014) [14], and recent literatures to assess head nurses knowledge regarding authentic leadership and mindfulness factors . It consisted of 61 questions in the form of true and false. **Questions were classified into 6 categories as follows:**

1. Authentic leadership basic concepts and its components include 10 question

2. Personal and hospital strategies ,benefits of leading authentically include 10 question .

3. Concepts , components , and strategies to cultivate mindfulness practice include 10 question .

4. Mindfulness factors and techniques

include 11 question.

5. Mindfulness at work and practice that make a better leaders

6. The examples of clinical situations to train head nurses on authentic leadership and mindfulness factors include 10 question.

Scoring system

Each item of knowledge test was taken score of (1) for correct answer and (0) for wrong answer.

Levels of head nurses knowledge presented as follows :

- Good level knowledge = > 75 % = 46 - 61 score

- Faire level knowledge = 60-75 % = 37 - 45 score

- Poor level knowledge = < 60 % = 0 - 44 score

Method

1. An official permission to carry out the study were obtained from Faculty of Nursing Tanta University authorities to responsible authorities at El menshawy General Hospital and Kafer El Sheikh General Hospital to give approval and assistance for data collection.

2. The purpose of the study was

explained and made clear to the administrators of both hospitals to gain their cooperation.

3. Ethical consideration: Head nurses consent to participate in the study was obtained they were informed about the privacy of information obtained from them , nature of the study , their rights to withdraw and the confidentiality of their names.

4. After reviewing of the related literature and different studies in this field, the study tools were developed by the researcher based on recommended and relevant literature.

5. Tools I, II and III were presented to a jury of 5 experts in nursing administration to check content validity of their items .The five experts were three assistant professor from nursing service administration, and one assistant professor from psychiatric department at Faculty of Nursing Tanta University . Beside one professor in nursing service administration from Zakazek University.

6. The expert's responses were represented in four points rating score ranging (4-1); 4= strongly relevant ,

3=relevant ,2= little relevant and 1= not relevant.

7. Necessary modifications were done as clarification, omission of certain questions and adding others and simplifying work related words. The content validity was 96.25% for authentic leadership and 97.7% for mindfulness factors.

8. A pilot study was conducted on 10% of head nurses randomly selected from the two hospitals to test the tools clarity and applicability ,then needed correction was done. The estimated time needed by head nurse to fill the scale was 20-30 minutes for each sheet. Reliability of tools was tested using Cronbach's Alpha and coefficient test. Its value 0.732 for authentic leadership practice , 0.958 for mindfulness factors and 0.854 for knowledge.

9. Data collection :the researcher distributed the assessment sheets to head nurses in each hospital to assess authentic leadership and mindfulness practices ,then sheet collected personally by the researcher after completion .The appropriate time for data collection differ according to the

type of work load of each department.

10. Practice self evaluation tool I, II and knowledge questionnaire tool III were used before , after, and 3 months after program implementation.

11. The data collection started from 14/11/2017 and lasted 10 month and ended at 15 /8/2018.

Statistical analysis

The collected data were organized, tabulated and statistically analyzed using SPSS software (Statistical Package for the Social Sciences, version 20 SPSS).

Results

Table (1) shows head nurses' characteristics, age, marital status, qualification, attendance of authentic or mindfulness programs, years of experience, and work departments. The age of head nurses ranged from 27 – 45 years with mean age 32.51, and 54.3 % of head nurses aged ≤ 30 years. Majority (95.8% ,97.2%) of head nurses were respectively female and married. Head nurses 90.0% having bachelor degree and not attended previous program on authentic leadership and mindfulness. Head

nurses experience ranged from 1-17 years; with mean 5.04□□□□□ years, and 44.3% were working at medical department.

Figure (1) Shows levels of head nurses total authentic leadership pre, immediate, and 3 months post program. Preprogram minority of head nurses had high level of total authentic leadership , increased respectively to be nearly half and one-third at immediate and three months post program.

Table (2) shows levels of head nurses authentic leadership dimensions pre, immediate and 3 months post program . There were statistically significant improvement of all levels of head nurses authentic leadership . Pre program 48.6% , 47.2% of head nurses showed moderate and low level of self awareness respectively , changed to 52.9% ,45.7% moderate and high level immediate, and 62.9 % , 34.3% at 3 months post program respectively.

Balanced processing dimension showed that only 2.8% of head nurses were at high level increased to 55.7% at immediate, and 24.3% three months post program. Relational transparency dimension showed that no head nurse

was at high level preprogram changed to 48.6% immediate , and decreased to 14.3% three months post program respectively. Head nurses 41.5% showed moderate level of internalized moral perspective pre program changed to be 55.7% immediate , and 78.6% three months post program.

Figure (2) shows levels of head nurses total mindfulness, pre, immediate, and 3 months post program. Preprogram minority of head nurses showed high level of total mindfulness, changed to be majority immediate, and three months post program.

Table (3) shows levels of head nurse total mindfulness factors pre, immediate and 3 months post program. There was statistically significant improvement of all levels of head nurses mindfulness factors at (P<0.05). Head nurses 12.9% had high level of observing factor preprogram, changed to 95.7% at immediate, and 90.0% three months post program. Describing factor showed that head nurses 24.3% got low level preprogram changed to be none of them had low level at both immediate and 3 months post program.

Acting with awareness factor showed that 22.9% of head nurses had low level preprogram changed to none was at low level at immediate, and only 1.4% three months post program. Non-judging of inner experience factor showed that only 7.1% of head nurses had high level preprogram, increased to 91.4% at immediate, and 57.1% three months post program. Non-reactivity to inner experience factor showed that 50.0% of head nurses had low level preprogram and none of them had low level immediate , and only 11.4% three months post program.

Figure (3) shows levels of head nurse's total knowledge, pre, immediate, and 3 months post program. Preprogram non of head nurses showed good level of total knowledge, changed to majority showed good level immediate and three months post program.

Table (4) shows levels of head nurse total knowledge items pre, immediate and 3 months post program. There were statistically significant improvement of head nurses knowledge of all items at (P<0.05). The head nurses basic concepts showed that pre program 2.8 % had good level of total knowledge

items which changed to be 100.0% , 91.4 % at immediate and 3 months post program respectively. Also strategies and benefits revealed that 22.8 % of head nurses had good level of knowledge preprogram , while high percent 100.0%%,

82.8 % % showed good level of total knowledge immediate and 3 months post program respectively. Regarding cultivating mindfulness practice showed that preprogram low percent 2.8% of head nurses had good level of knowledge improved to 100.0 % immediate, and 75.7 % at 3 months post program.

Factors and techniques revealed that pre program only 1.4 % of head nurses were at good level of total knowledge , compared to

100.0 % , 72.8% at immediate and 3 months post program respectively. As regards to practices make a better leaders demonstrated that pre program 15.7 % of head nurses had good level of knowledge, increased to be 100.0 % and 82.9 % at immediate and 3 months post program respectively. While training clinical situations displayed that pre program 18.6 % of head nurses had

good level of knowledge , changed to be 100.0 % and 80.0 % at immediate and 3 months post program respectively.

Table (5) shows correlation between head nurses characteristics and the total mindfulness factors score pre, immediate, and 3 months post program in both hospitals. Negative highly significant correlation was detected between department and mindfulness factors at pre , immediate and three months post program in both hospitals at (P < 0.01).

Figure (4) shows correlation between head nurses mindfulness and knowledge in Elmenshawy General Hospital.pre, immediate, and 3 months post program. Positive non-significant correlation was detected between head nurses knowledge and mindfulness pre, immediate and 3 months post the program.

Table (1): Head nurses characteristics N=70.

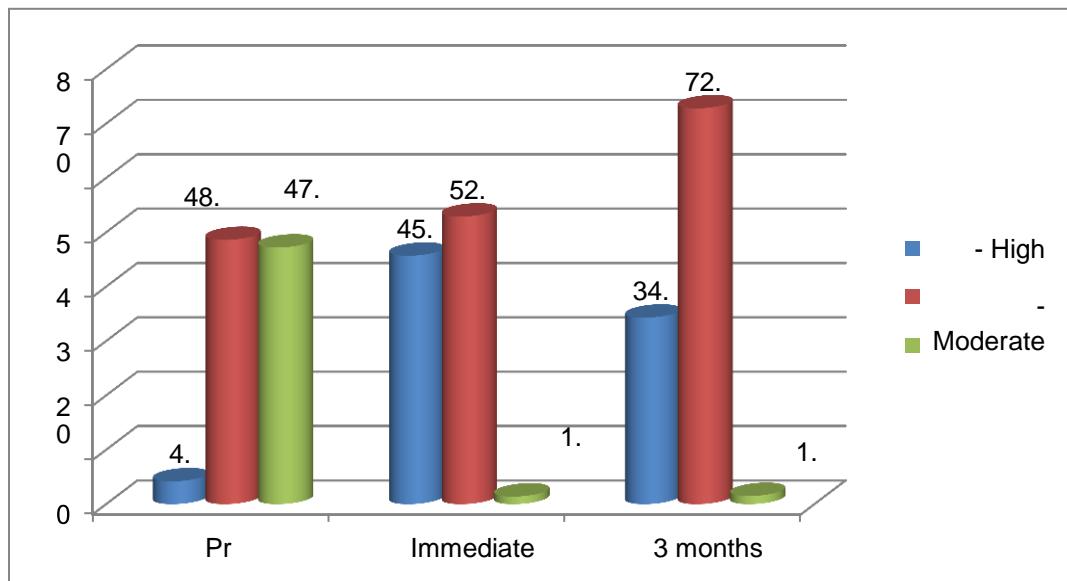| Characteristics	Total N=70		El menshawy N=30		Kafer Elsheikh N=40	
	N	%	N	%	N	%
Age (in years): -≤30 years ->30 years	32 38	45.7 54.3	9 21	30.0 70.0	23 17	57.5 42.5
Range **Mean□ SD**	**27 – 45** **32.51□□□□□**		**30 – 45** **34.13□□□□□**		**27 – 40** **31.30□□□□□**	
Gender: -Male -Female	3 67	4.2 95.8	0 30	0.0 100.0	3 37	7.5 92.5
Marital status -Married -Widowed -Divorced	68 1 1	97.2 1.4 1.4	30 0 0	100.0 0.0 0.0	38 1 1	95.0 2.5 2.5
Qualification -Baccalaureate degree -Master degree	63 7	90.0 10.0	26 4	13.3 86.7	37 3	92.5 7.5
Previous authentic leadership training -No -Yes	70 0	100.0 0.0	30 0	100.0 0.0	40 0	100.0 0.0
Previous mindfulness training -No -Yes	70 0	100.0 0.0	30 0	100.0 0.0	40 0	100.0 0.0
Years of experience -≤5 years ->5 years	47 23	67.1 32.9	19 11	63.3 36.7	28 12	70.0 30.0
Range **Mean □ SD**	**1 – 17** **5.04□□□□□□**		**1 – 15** **5.07□□□□□**		**1 – 17** **5.02□□□□□**	
Department -Medical -Pediatric -Surgery -Infection and quality	31 21 11 7	44.3 30.0 15.7 10.0	13 9 5 3	43.3 30.0 16.7 10.0	18 12 6 4	45.0 30.0 15.0 10.0

Figure (1) : Levels of head nurses total authentic leadership pre, immediate, and 3 months post program

Table (2) : Levels of head nurses authentic leadership dimensions pre, immediate and 3 months post program N =70.

Dimensions	Pre		Immediate		3 months post		χ^2 P
	N	%	N	%	N	%	
Self-awareness							
-High	3	4.2	32	45.7	24	34.3	
-Moderate	34	48.6	37	52.9	44	62.9	**79.354**
-Low	33	47.2	1	1.4	2	2.8	**0.000***
Balanced processing							
-High	2	2.8	39	55.7	17	24.3	
-Moderate	30	42.9	30	42.9	51	72.9	**108.798**
-Low	38	54.3	1	1.4	2	2.8	**0.000***
Relational transparency							
-High	0	0.0	34	48.6	10	14.3	
-Moderate	19	27.1	35	50.0	48	68.6	**118.767**
-Low	51	72.9	1	1.4	12	17.1	**0.000***
Internalized moral							
-High	3	4.2	30	42.9	12	17.2	
-Moderate	29	41.5	39	55.7	55	78.6	**95.447**
-Low	38	54.3	1	1.4	3	4.2	**0.000***

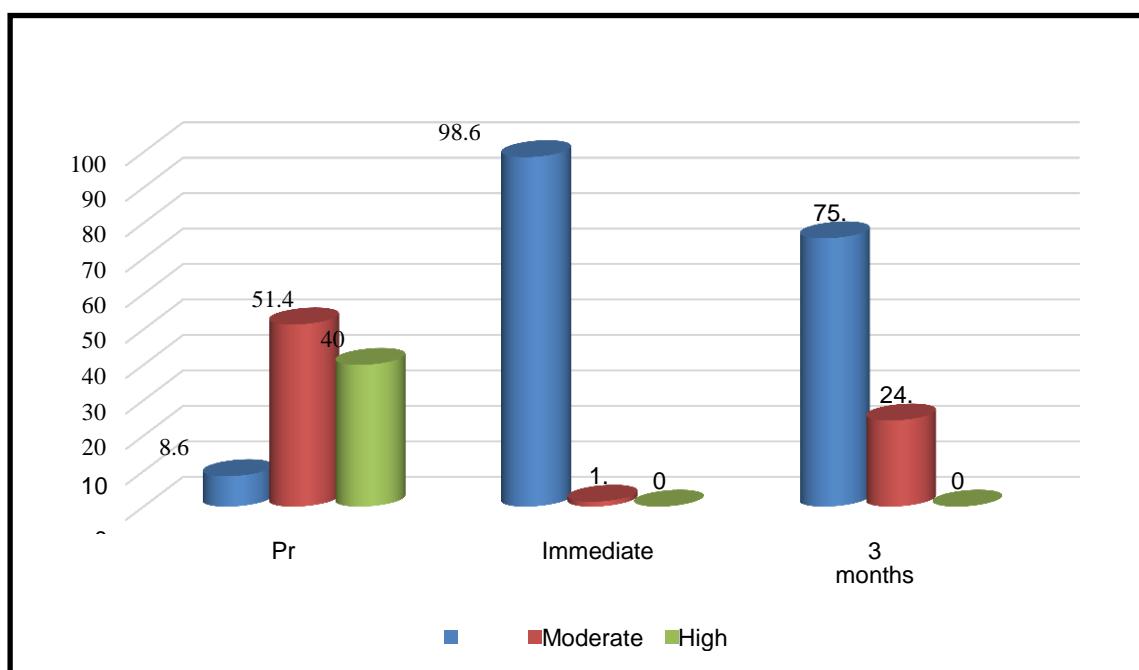*** Statistically significant difference at (P<0.05)**

Figure (2) : Level of head nurses total mindfulness, pre, immediate, and 3 months post program.

Table (3) : Levels of head nurse total mindfulness factors pre, immediate and 3 months post program N=70.

Factors	Pre		Immediate		3 months post		x^2 P
	N	%	N	%	N	%	
Observing							
-High	9	12.9	67	95.7	63	90.0	
-Moderate	35	50.0	3	4.3	4	5.7	**134.443**
-Low	26	37.1	0	0.0	3	4.3	**0.000***
Describing							
-High	12	17.1	67	95.7	57	81.4	
-Moderate	41	58.6	3	4.3	13	18.6	**112.710**
-Low	17	24.3	0	0.0	0	0.0	**0.000***
Awareness							
-High	17	24.3	67	95.7	52	74.3	
-Moderate	37	52.8	3	4.3	17	24.3	**88.134**
-Low	16	22.9	0	0.0	1	1.4	**0.000***
Non-judging							
-High	5	7.1	64	91.4	40	57.1	
-Moderate	33	47.1	6	8.6	17	24.3	**102.742**
-Low	32	45.8	0	0.0	13	18.6	**0.000***
Non-reactivity							
-High	6	8.6	62	88.6	49	70.0	
-Moderate	29	41.4	8	11.4	13	18.6	**105.422**
-Low	35	50.0	0	0.0	8	11.4	**0.000***

[*]**Statistically significant difference at (P<0.05)**
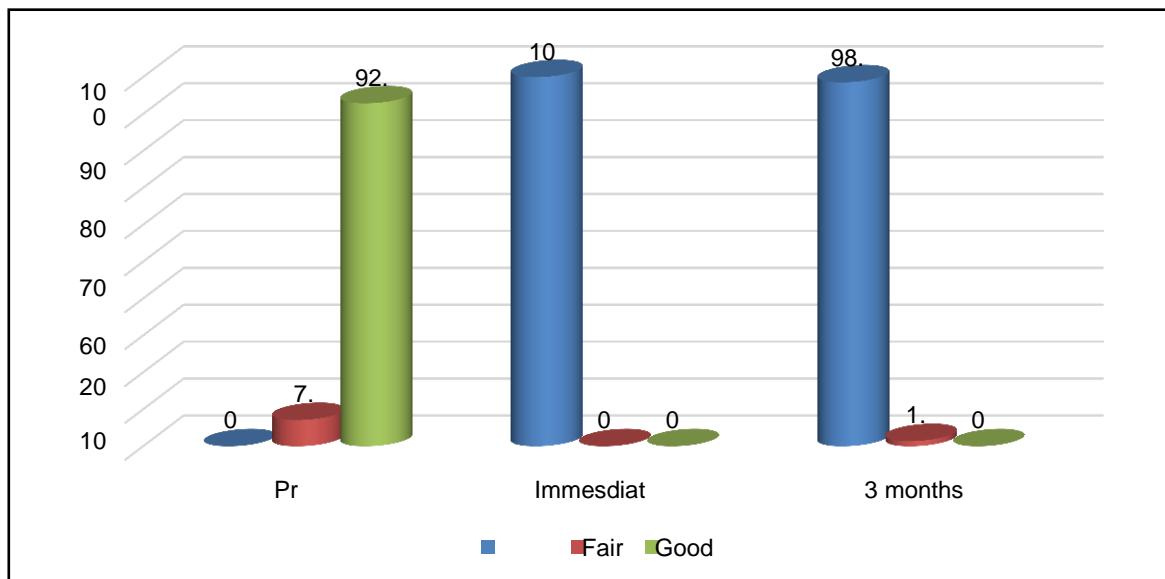

Figure (3) :Levels of head nurse's total knowledge, pre, immediate, and 3 months post program.

Table (4): levels of head nurses total knowledge items pre, immediate and 3 months post program in both hospitals N=70.

Level of items	Head nurses						χ^2 P
	Pre		Immediate		3 months post		
	N	%	N	%	N	%	
Basic concepts							
-Good	2	2.8	70	100.0	64	91.4	
-Fair	16	22.8	0	0.0	6	8.6	**184.34**
-Poor	52	74.4	0	0.0	0	0.0	**0.000***
Strategies and benefits							
-Good	16	22.8	70	100.0	56	82.8	
-Fair	33	47.2	0	0.0	12	17.2	**162.61**
-Poor	21	30.0	0	0.0	0	0.0	**0.000***
Cultivate mindfulness practice							
-Good	2	2.8	70	100.0	53	75.7	
-Fair	7	10.0	0	0.0	16	22.9	**194.99**
-Poor	61	87.2	0	0.0	1	1.4	**0.000***
Factors and techniques							
-Good	1	1.4	70	100.0	51	72.8	
-Fair	14	20.0	0	0.0	16	22.9	**176.60**
-Poor	55	78.6	0	0.0	3	4.3	**0.000***
Practices make a better leaders							
-Good	11	15.7	70	100.0	58	82.9	
-Fair	10	14.3	0	0.0	11	15.7	
-poor	49	70.0	0	0.0	1	1.4	**130.669** **0.000***
Training clinical situations							
-Good	13	18.6	70	100.0	56	80.0	
-Fair	20	28.5	0	0.0	14	20.0	**152.82**
-Poor	37	52.9	0	0.0	0	0.0	**0.000***

Table (5): Correlation between head nurses characteristics and total mindfulness factors score pre, immediate, and 3 months post Program N=70.

Characteristics	factors					
	Pre		Immediate		3 months post	
	r	P	r	P	r	P
Age in years	-0.066	0.586	0.021	0.864	-0.150	0.216
Marital status -Married -divorced -widowed	0.014	0.906	-0.106	0.382	0.162	0.181
Qualification -Baccalaureate degree -Master degree	-0.058	0.636	-0.214	0.075	0.026	0.833
Attend previous training Program	0.134	0.270	0.219	0.068	-0.011	0.931
Years of experience in years	-0.058	0.635	0.222	0.065	-0.086	0.479

Department
    -Medical
     -Pediatric
-Surgery
-Infection and quality
	-0.395	0.001**	-0.318	0.007**	-0.057	0.642

* Statistically significant difference at (P<0.05)

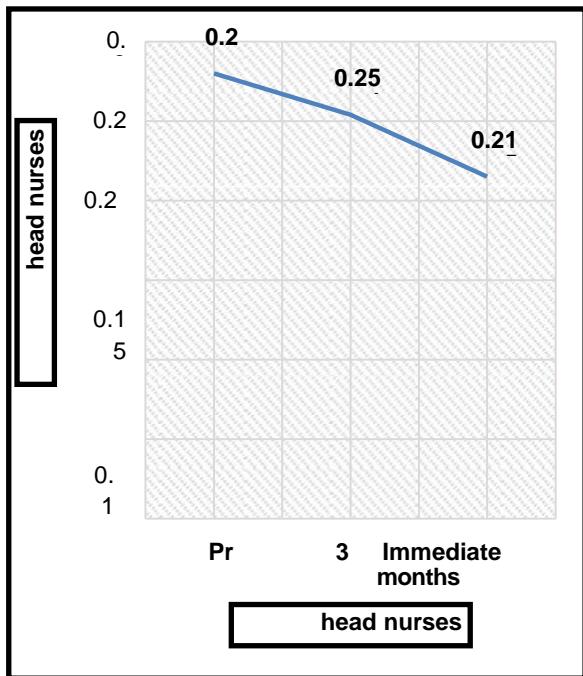**** Highly significant at (P < 0.01**

Figure (4) :Correlation between head nurses mindfulness and knowledge in Kaferelshiekh General hospital
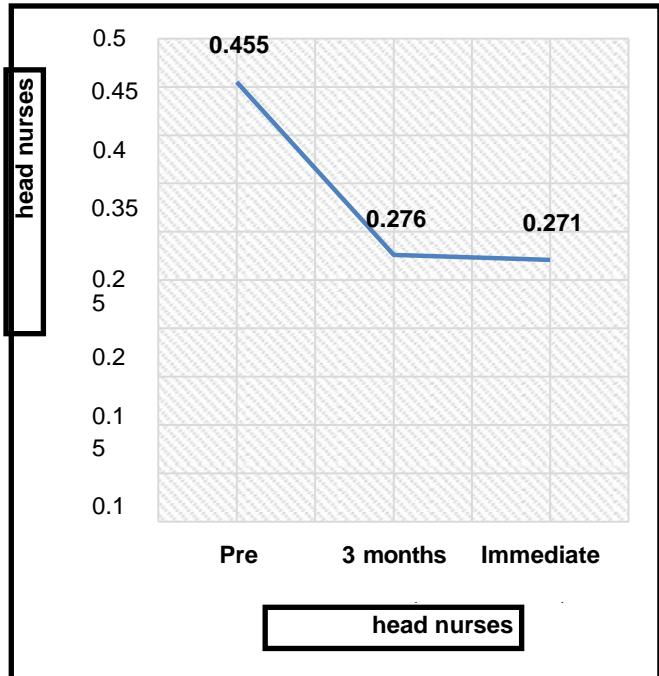

Figure (5): Correlation between head nurses mindfulness andknowledge in Elmenshawy General Hospital.

Discussion

Assessment of the present study head nurses authentic leadershippractice level revealed that preprogram, half of them showed low practice level of total authentic leadership as they did not attend previous training program about authentic leadership .But the resting of head nurses were at moderate and high level indicating that they had internal motivation and readiness to become authentic leaders in their practice. This could be due to being exposed to a diversity of life experiences , being affiliated to have a master's in nursing science , or already hold a master's in nursing science.

Ideally, authentic leadership is an emerging style and need appropriate strategies to facilitate its practice through training program . Being authentic head nurse is hard work and takes years of experience in leadership roles. Training program will shorten the period of head nurses developing authentic leadership by connecting them with truth, creative ideas, journey of self-discovery and sharing experiences. Besides, learning them to lead themselves before leading others as well as significant of honest relationships to their souls and to other personnel.

Findings of study are consistent with results reported by **Baron (2012)**[18] study about developing authentic leadership through experiential training: an empirical study , the participants scored lower on self-assessed authentic leadership at the start of the training program.**Bussinet al (2016)**[19]study about fast trackingauthentic leadership development by means of a program, indicated that before the start of the program, there was limited awareness of the notion of authentic leadership.

But after implementation of the program, the current results displayed that head nurses reported statistically significant improvement of authentic leadership mean score immediate and three months post program as compared to preprogram. This finding may be due to head nurses had understanding of basic authentic leadership role and demonstrated genuine and honest desire to serve self and others more effectively. Apparently those head nurses attendance of the present study program foster their development through improvement of self- awareness, internalized moral perspective, balanced processing of information, and relational transparency

In fact, the present authentic leadership training program maximized the chances

of generating lasting impacts on those head nurses by giving them the opportunity to open discussion, considering and valuing different viewpoints,genuinely explore life history, sharing stories with others and learning from those shared by others. The enhancement in those head nurses' knowledge score also may be due to their active involvement and interest in the program sessions and frequent review of their knowledge. Other explanation of the improving knowledge in the present study that the researcher introduced examples from web sites, videos, simulation and let the head nurses make applications from work situations .

Current result displayed that head nurses reported statistically significant improvement of total practice of mindfulness and each of observing , describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience factors immediate and three months post program than preprogram. Present study mindfulness training program improved those head nurses knowledge and provide them with practical methods for enhancing attention and awareness about

mindfulness techniques such as breathing and meditation. Actually, they trained for making pausing and paying attention to notice beauty in environment, transportation , office , and home. Yet, most of those head nurses became ambitious and have desire to develop themselves than pre program by learning and acquiring new applicable knowledge. Most probably by practicing mindfulness they reduced their stress ,enhanced their awareness as well as being resilient, innovative and effective leaders.

Really, head nurses training for mindfulness practice and meditation technique improved their ability to focus and concentrate on any task at hand and improved their functioning with subordinates and patients , as well as had positive effect on their physical and mental workability.**Ponsoda et al. (2017)**[20]study about the effect of an out-of- school mindfulness program on adolescents' stress reduction and emotional wellbeing, participants reported increase in observing, describing, acting with awareness, non-judging of inner experience and non-reactivity to inner experience. **Baron et al. (2018)**[21]study about mindfulness and leadership flexibility, suggested that by developing

mindfulness program, managers might be better able to adapt their leadership style. While **Mellor et al**. **(2016)**[22] study about mindfulness training and employee well being, found significant increases in self-reported mindfulness skillsafter a mindfulness training program as well as provided evidence that mindfulness skills can be developed through training.**Baron (2012)**[18]showed that the participants scored lower on self-assessed mindfulness at the start of the training program.**Lan et al (2014)**[23]

study about the effects of mindfulness training program on reducing stress and promoting well being among nurses in critical care units, participants reported significant improvement in the level of mindfulness after completing the program.

Findings of present study showed that there are statistically significant improvement of levels of head nurses total knowledge regarding authentic leadership and mindfulness post program implementation in both hospitals. The fact is that the training program about authentic and mindful factors provided head nurses with a full opportunity to share creative ideas and learn from their life stories, practice of being fully present

in the moment, thus articulate benefits of authentic mindfulness for them. Also, mindful leadership knowledge enabled head nurses to lead with presence, clarity, can stay calm in a crisis, be resilient in the face of challenge, make intentional decisions in order to achieve the goals of their hospitals. This facilitated by the ability of the head nurses to gain knowledge easily because they are very ambitious and they are interested in the research topics. Moreover, the majority of head nurses were in young age which showed more readiness and more capacity for learning as well as having easy knowledge retention.

Also, the acquisition of knowledge is facilitated by new and existing subjects that are both accessible and usable. Learning is enhanced through peer supported interactions and collaboration. Over that , training committee in both hospitals offers complete cooperation and all facilities for researcher such as training room, data show tools and collect head nurses in training room to keep abreast of leadership development and knowledge. All of these facilities contributed to head nurses acquisition of knowledge to become more easily. Also, discussing the topic of the research program openly with

the researcher and other peers in training room by using all methods of technology like data show , videos and mail maximized and contributed to transfer and apply authentic leadership and mindfulness knowledge on the earth.

Mindfulness and authentic leadership training is helpful for head nurses seeking new forms of personal development and connection with the world around them. However, a slight decline occurred in head nurses' knowledge about authentic leadership and mindfulness practice post three months of program implementation. The decline of head nurses ' knowledge about authentic leadership and mindfulness practice at three month post program implementation could be explained by gradual decrease in the head nurses knowledge over time due to many causes such as; increasing work overload, workplace conflict, over that there is no practical application of authentic leadership and mindfulness practice either formal or informal. Knowledge that not utilized in regular practice is expected to be decreased, diminished or even lost with the passage of the time.

Moreover, there is a direct relation between memory loss and length of time that lapses post program implementation. The findings are parallel with **Louis (2016)**[24] study about authentic leadership and mindfulness development through action learning , indicated that self- reports of authentic leadership and mindfulness increased significantly after leadership development program **Ragab et al .(2013)**[25] study about effect of designed training program on nurse's performance regarding care of patient with blood borne viral hepatitis at Assiut University Hospital, reportedthat a highly significant differences between nurse's knowledge (pre versus immediately post, and immediately post versus 3 months) . Also, **Hesser et al (2017)**[26] study about the mediating effect of mindful non-reactivity, found increasing in participants mindful non-reactivity post program.

Conclusion

Head nurses at the two hospitals; Elmenshawy General Hospital and Kafer El sheikh General Hospital were lacking practice regarding the emerging style of authentic leadership and mindfulness factors.Implementation of successful educational program on authentic leadership and mindfulness factors led to significant improvement

in all study subject head nurses knowledge and practice at all departments in both hospitals. Three months later their knowledge and practices were slightly declined , indicating their needfor follow up training, and periodical supportive intervention to sustain their authentic leadership and mindfulness knowledge and practices.

Recommendations

Recommendations are suggested:

- -Authentic leadership ,mindfulness practice training courses should be considered a prerequisite for head nurses to occupy their position.

- Head nurses should attend workshops on dimensions of authentic leadership and mindfulness factors and how become effective leaders by augmentation of them.

- Authentic leadership and mindfulness educational training programs should be provided periodically to update head nurses essentials knowledge regarding authentic leadership and mindfulness.

- Hospitals should offer periodical mindfulness program to increase head nurses observing, describing, acting with awareness, non-judging of inner experience and non-reactivity to inner experience to reduce work stress and turn over.

- Head nurses should train to be more realistic in their judgments and decisions about themselves and their work in the present moment by blocking past and future thoughtsto gain subordinates trust and respect .

- Head nurses should be activated to share their ideas,feelings, information and listening to feedbackto enhance work relationship .

- Head nurses attention to trainto act consciously rather than react passively to take well-planned actions to manage work distinction.

- Head nurses should engage in mindfulness reflection practices as breathing and meditation techniques to have awareness of personal limitations .

- Great attention for head nurse leader to be mindful observer to grantthe power of being objective about their thoughts.

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