

Developing and Implementing an Educational Program about Strategies and Skills of Ambiguity Management for Nurse Managers

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Abstract

This study aims to Developing and Implementing an Educational Program about Strategies and Skills of Ambiguity Management for Nurse Managers to improve the organization change in to positive manner. Study design: A quasi-experimental design was used. Setting: The study was conducted at Ministry of Health and Population Hospitals. Subject: Convenience sample of Nurse Managers. Methods: The data were collected using: Self-administered questionnaire including: Personal data sheet, Ambiguity management skills assessment scale. Program evaluation sheet including Nurse Manager's knowledge test. Nurse Manager's opinionnaire sheet. Results: The study revealed that Nurse Managers had unsatisfactory knowledge level in pre-program assessment but satisfactory in post and follow up phase (90.9%, and 81.8%) respectively. The highest percentages of Nurse Managers have low knowledge about ambiguity management skills and strategies in preprogram assessment(81.8%), but high knowledge in immediate post and follow up phase(86.3%, 81.8%) respectively. Conclusion: There were statistically significant differences between pre& post and pre & follow up phases regarding; Nurse Managers Ambiguity management skills, Nurse Managers' knowledge about Ambiguity management skills and its strategies, .Recommendations: Further training for nurses and introduce the concept of ambiguity management skills and its strategies, to the curriculum of undergraduate and post graduate for its importance in nursing faculties.

Keywords: Assessment, Educational program, Nurse Manager, Skills and Strategies, Ambiguity management

Introduction:

Today, there is increasing competition among organizations as they expand the markets around the globe. Consequently, organizations must become more effective and efficient in their operations than ever before. They cannot languish in the often highly reactive and chaotic start-up stage of development. Instead, they must more quickly evolve through the growth stage with its strong focus on internal development and then onto the mature stage where it can be much more competitive (McNarmar 2009). In the last decade, the world we had taken for granted has been shattered. More and more, organizations have to deal with a complex, turbulent environment. Misunderstanding of this environment has been the downfall of many projects, programs, and organizations in recent

years because for as much as we have learned to deal with uncertainty and have developed the tools and techniques to do it, we do not understand how to deal with ambiguity (Thiry, 2011).

Dealing with ambiguity can effectively cope with change; can shift gears comfortably; can decide and act without having the total picture; can comfortably handle risk and uncertainty (Will, 2014). The strong ability to deal with ambiguity is often described as adaptable, flexible, and comfortable with uncertainty (Wikipedia, 2017). Dealing with ambiguity is a competency quickly pushing its way up on the list of most wanted executive competencies, while simultaneously working its way down as a vital survival skill down the organization chart (Hurt, 2014).

Baggini, (2017) reported that the following skills help the manager to dealing with ambiguity and Accepting that the world is full of uncertainty and ambiguity does not and should not stop people from being pretty sure about a lot of things. Understand own tolerance and reaction, be crystal clear on what is clear, Know what collectively know and what don't, don't waffle or (if need to change direction, do it boldly), Encourage risk taking, Envision alternative scenarios and engage other people and perspectives

Merkin, (2005), but the examples above illustrate only one of the four different types of ambiguous situations that the manager will be confronted with. These four types of ambiguous situations arise from four different sources: goal ambiguity there are functional goals and political goals. Different people prioritize top line and bottom line targets. There are goals stemming from the institutional imperative and personal predilections, mental model ambiguity this is what faced in the situation and shared earlier. When lacked the mental models and the necessary absorptive capacity about the refining the work, motive ambiguity in this type the manager motives and goals provide a superstructure in a case, they also help to use the right mental models of the world. A lack of clarity in motives can lead to significant dissonance. When faced with goal ambiguity and mental model ambiguity, motive ambiguity can become overwhelming for anyone, outcome ambiguity this is the situation when the range of outcomes in a situation is hidden from one's view. In such situations, one can feel overwhelmed because the future seems not only uncertain but unknowable. Such circumstances are often associated with fear. Once fear enters an ambiguous situation, rationality goes out the window. It only makes things worse!

Empson, (2009) reported that the important steps help the manager to dealing with ambiguity situations: learn the art of stepping back which of the four causes of ambiguity is most prevalent in a situation to help the manager. It can help to set the path needed to gain the needed clarity, develop an 80-20 attitude: the Pareto principle is friendly when dealing with ambiguity. In any situation, 20% of causes drive 80% of the outcomes. If

deeply understand this principle and become comfortable with it, the ability to deal with ambiguity will increase manifold. Need for 100% precision is enemy in such situation. In the manager view, this is a skill anyone can learn, learn strategic thinking: this is a way of thinking that can help the manager ignore most of the clutter in the world and focus on the critical few things. Strategic thinking is again a skill that can be learned. Teaching strategy thinking for over ten years and regularly see people become good at it in a short time, conduct scenario planning: very often people get stuck with a single outcome in a situation. Scenario planning can often lower the overwhelming feeling emerging from outcome ambiguity. It will also prevent from worrying about catastrophic outcomes in ambiguous situations.

Wikipedia (2017) represented that the following strategies to deal with ambiguity in Life and Work there are an increasing number of guidelines and tools for dealing with ambiguity: Enhance interpersonal skills, so that can more patience with others and can have more patience with the manager. Strengthen communications skills, so can be even more clear is saying what mean without others inadvertently hearing something else. Manage time and stress, so the manager can be more patient with the confusion and frustrations that can often occur when dealing with ambiguity. Strive for a growth mindset, rather than a fixed mindset, so can see ambiguity as an opportunity for learning. Practice mindfulness, so the manager can be more present in the moment and not focusing on confusion and frustrations. Learn creative ways to make decisions and solve problems, for example design thinking and organic problem solving. Decision-making aims for a consensus style to provide input. The more perspectives in a decision, the more likely the decision will be accurate and useful or at least, the more patient those involved will be with the outcome. Use the Pareto Principle, to do the first 20% of effort that generates the first 80% of results. Be realistic in expectations and deadlines. Build in means to make changes to plans as necessary. See ambiguity as means to more creativity and innovation because it challenges the mind to see things differently. Understand principles

for successful change, because there will very likely to increasing changes in how the manager respond to life and work.

Group development is the process by which members of newly formed work teams learn about their teammates, establish their roles and responsibilities, and acquire the task work and teamwork capabilities required to coordinate their effort to perform effectively as a team. Work group development pertains to the team as a whole (i.e., all members are new to the team), distinguishing this process from group socialization, which refers to the assimilation of new members into an existing team with an ongoing history. The amount of time it takes for a team to develop is variable and, although precise time frames are not established, the process is presumed to take longer when the team task entails greater complexity, interdependence, and coordination and less time when there is less demand for the integration of team members' knowledge, skill, and effort. The process is important because team development is assumed to be a necessary, but insufficient, precondition for team effectiveness. That is, work groups and teams cannot achieve goals and meet performance expectations until essential task work and teamwork skills have developed. (Kozlowski & Bell, 2013)

Significance of the study:

Nowadays many studies published in professional articles and journals internationally focus on developing and improving ambiguity skills and strategies nurse manager's knowledge already employed are not taking the same interest. Some of these studies are; **Adrian & Tracy (2001)** who study "Tolerance of ambiguity: A review of the concept, its measurement and applications", **Wilkinson, (2006)** who addressed that "The Ambiguity Advantage: What great leaders are great at Palgrave Macmillan", **Eisenberg, (2007)** who determined "Strategic Ambiguities: Essays on Communication, Organization, and Identity", and **Thiry, (2011)** addressed that "Ambiguity management: the new frontier. This was the motive to assess Nurse Managers learning needs toward ambiguity management skills and strategies at Ministry of Health and Population Hospitals. The need assessment

result depicted that the majority of Nurse Managers had low level of knowledge about ambiguity management skills and strategies (81.8%). Thus, an in-service education program becomes the necessity in this period of time so the researcher insist to complete this study after need assessment phase.

Aim of the study

This study aims to Developing and Implementing an Educational Program about Strategies and Skills of Ambiguity Management for Nurse Managers.

The research hypotheses

Formulated preprogram implementation and In-service training program will be improved Nurse Manager's knowledge regarding ambiguity management skills and its strategies.

Methods:

A quasi-experimental design was utilized for the current. This study was conducted in Ministry of Health and Population Hospitals. Convenience sample of Nurse Managers (Nursing director and Nursing supervisor (N=44) working at Ministry of Health and Population Hospitals.

Data collection tools:

The data were collected using:

I) Self-administered questionnaire including:

Part (I): Personal data sheet; gathers data about: gender, age, and years of experience, educational qualification, and marital status.

Part (II): Ambiguity management skills and strategies assessment scale Nurse Managers were asked to respond to a 4 point rating scale which ranges from (1) for rarely, (2) for sometimes, (3) for often and (4) for always. The total score of the scale ranged from 50 to 200 and was divided into three levels. If the Nurse Managers gets 50-99 it means she had low level, from 100-149 it means she had moderate level, and from 150-200 it means she/he had high level of knowledge.

Part (III) Nurse Managers' knowledge test (pre, post and follow up test): It was

developed by the researcher to assess Nurse Managers' knowledge regarding ambiguity management skills and its strategies. It covers 16 open ended questions. The test was administered to participants before, after the implementation of the program, and follow up after three months, the Nurse Managers responses were measured and correct answer given (2) marks, incomplete correct answer given (1) mark and incorrect answer given (zero) mark, the sum of correct answers was totaled and if it $\geq 60\%$ this means satisfactory knowledge level but if it $< 60\%$ this means that participants had unsatisfactory knowledge level.

Part (IV) Nurse Managers' opinion sheet: It was developed by the researcher to evaluate the whole program from Nurse Managers' point of view. It covers (17) questions classified into three items as follows; the program content (10 questions). The appropriateness of the educational programs (6 questions). The Nurse Managers' responses measured on 5 points Likert scale ranged from (5) excellent, (4) very good, (3) good, (2) pass and (1) poor and One open-end question which describes the suggestions of Nurse Managers for improvement.

Study procedures:

After reviewing the available literature concerning the topic of the study, Arabic translation of the study tool was done; it took about three months from the beginning of October to the end of December 2017. Faced validity was done to assure accurate comprehension of the study tool. That was done through a jury (expert opinions) composed of 3 professors and 2 assistant professors from the Nursing Administration and Community Health Nursing Departments, Faculty of Nursing, Assuit University. Also, content validity was checked and analyzed using confirmatory factor analysis test to assure (importance, clearness, and accountability of each items of the study tool) and its result was ≥ 1.8 for all items of the study tool (ambiguity management skills and its strategies assessment scale), so all items in the study tool items was confirmed. The pilot study was done to estimate the time needed to fill the questionnaire form (each questionnaire took from 20-30 minutes) also to detect any

problems that may be encountered during the data collection phase. It was applied to five Nurse Managers (10%) from at Ministry of Health and Population Hospitals. Data collected from the pilot study were analyzed to test consistency of study tool using Cronbach's Alpha Coefficient test. The result was $\alpha \geq 0.86$ for each item of ambiguity management skills and its strategies assessment scale. The Nurse Managers included in the pilot study were Included from the present study. Necessary modifications were done after the pilot study. This period took about two weeks.

The researcher prepared an education booklet about self-efficacy and its strategies within three months from the beginning of March to the end of May 2018, which was used as a handout for Nurse Managers and prepared the time table of the program, the learning environment in which the study was conducted and all the needed resources as data show. The booklet was distributed to Nurse Managers at the end of the first training day. Also, five copies were introduced for manager of continuing training and education center as a gift and a thankful gesture for their help and support. The data were collected by the researcher by distributing a questionnaire form for Nurse Managers. The time spent with each Nurse Managers was from 20-30 minutes. This phase took about three months from July to September 2018.

The program was implemented by the researcher within two weeks period. The total time of the program was 18 hours distributed to 9 sessions for each group, 3 sessions every day (start from 8 am the attendance time to 2 pm the leave time) thus all session were implemented in accordance with the working time of the Nurse Managers. In the first session the researcher explained the aim of the study, program objectives, contents and time table. at the beginning of each session, the objectives of the sessions were explained. Daily feedback was done about the previous session and at the end of each session there was a summary about the current session. After ended of the educational program distributed of the certificates for participants.

The researcher used questions to evaluate the following: **a-Outcome of the program:**

This can be evaluated through the use of: Self-administered questionnaire developed by the researcher used to evaluate knowledge level of program content through pre, post and follow up tests after three months. The test was completed in about half an hour. Assessment scale to evaluate the improvement of Ambiguity management through pre, post and follow up tests after three months later. **b- Effectiveness of the program "participant feelings about the program"**: This can be evaluated through the use of: A structured questionnaire that asks the Nurse Managers about the program. Attendance and participation of Nurse Managers in learning

sessions are available indications of program effectiveness.

Collected data were verified before computerized data entry and analysis by using statistical software package for social sciences (SPSS) v.g 20 program. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, means and standard deviations for quantitative variables. Quantitative variables were compared using the chi-square test, paired t-test, Pearson correlation matrix and (ANOVA test) were used, and statistical significance was considered at $P\text{-value} \leq 0.05$.

Results:

Table (1): Distribution of Nurse Managers Personal Data

Personal Data	No.	%
1-Age: (years)		
25-< 35	7	15.9
35 - < 45	8	18.2
45- 55↑	29	65.9
Range: 25-52 years.	Mean ± SD	38.84 ± 5.95
2-Gender:		
Male.	0	00
Female.	44	100
3-Levels of education:		
Bachelor degree in nursing sciences.	40	90.5
Master degree in nursing.	4	9.1
4-Marital status:		
Single.	1	2.3
Married.	39	88.6
Divorced.	1	2.3
Widow.	3	6.8
5-Years of experience:		
<15 years	13	29.5
≥ 15 years	31	70.5
Range: 2-35 years.	Mean ± SD	17.2±6.26

This table shows that the majority of Nurse Managers are females, married, having a bachelor degree in nursing sciences, having experience equal or more than 15years (100%, , . Also, the table illustrates that nearly two-thirds of them aged 45years to more years old (65.9%, 90.5%, 88.6% and 70.5%) respectively.

Table (2): Comparison between mean scores and standard divisions of Nurse Managers' knowledge level regarding ambiguity management skills & its strategies

Nurse Managers' Knowledge level	Pre	Post	Follow up	Pre-post	Pre-follow-up
	Mean ± SD	Mean ± SD	Mean ± SD	P.value1	P.value2
Low level	85.1±27.8	164±28.1	159±35.7	0.001**	0.001**
Moderate level					
High level					

This table shows that there is a highest mean score and standard division about ambiguity management skills & its strategies in post program and there is a highly statistically significant difference between pre & post program (0.001**). And there is a highly statistical significant difference between pre & follow up of the program (0.001**).

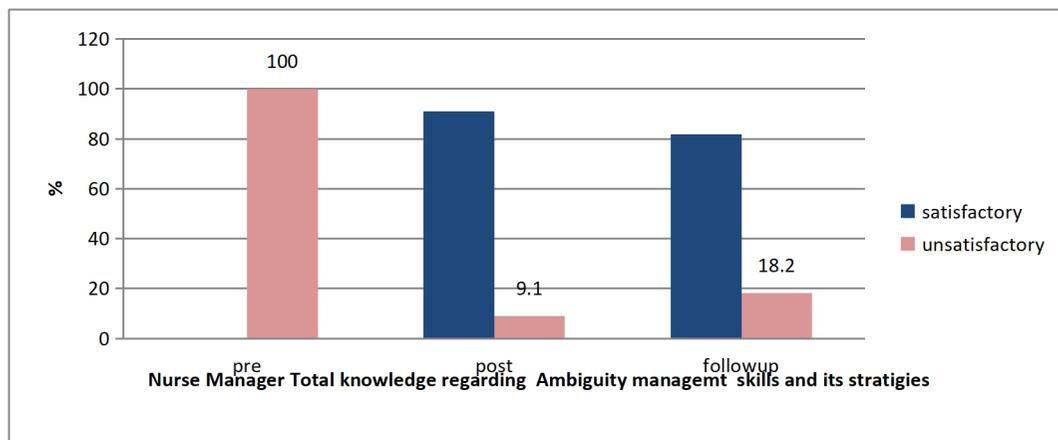
Table (3): Nurse Managers' knowledge regarding ambiguity management skills and its strategies

Items	Pre		Post		Follow up		Pre – post		Pre – follow up	
	No.	%	No.	%	No.	%	X ² 1	P. v1	X ² 1	P. v2
Ambiguity management skills:										
1. Understand own tolerance and reaction	1	2.3	40	90.9	38	86.3	69.4	0.001**	69	0.001**
2. Be crystal clear on what is clear	5	11.4	41	93.2	36	81.8	58.3	0.001**	58	0.001**
3. Know what collectively know and what don't	1	2.3	41	93.2	38	86.3	72	0.001**	71.5	0.001**
4. If need to change direction, do it boldly and Encourage risk taking.	2	4.5	40	90.9	36	81.8	65	0.001**	63.7	0.001**
5. Envision alternative scenarios and engage other people and perspectives	5	11.4	43	97.8	36	81.8	65.4	0.001**	62.4	0.001**
Ambiguity management strategies:										
6. Enhance interpersonal skills	1	2.3	22	50	20	45.5	25.6	0.001**	25.3	0.001**
7. Strengthen communications skills	2	4.5	36	81.8	35	79.5	52.9	0.001**	52.8	0.001**
8. Manage your time and stress	3	6.8	30	68.1	24	54.5	34.9	0.001**	34	0.001**
9. Strive for a growth mindset	6	13.7	37	84	30	68.1	43.2	0.001**	42.2	0.001**
10. Practice mindfulness	7	15.9	42	95.4	42	95.4	55.7	0.001**	55.7	0.001**
11. Learn creative ways to make decisions and solve problems	8	18.2	39	88.6	35	79.5	43.3	0.001**	42.6	0.001**
12. A consensus style in decision making	4	9.1	36	81.8	35	79.5	46.4	0.001**	46.2	0.001**
13. Use the Pareto Principle.	3	6.8	39	88.6	39	88.6	58.3	0.001**	58.3	0.001**
14. Be realistic in expectations and deadlines	4	9.1	39	88.6	35	79.5	55	0.001**	53.8	0.001**
15. See ambiguity as means to more creativity and innovation	10	22.7	35	79.5	35	79.5	28.1	0.001**	28.1	0.001**
16. Understand principles for successful change	3	6.8	38	86.3	36	81.8	55.3	0.001**	55	0.001**

(**) Highly statistically significant difference.

P1: means the relation between pre and posttest. P2: means the relation between pre and followup.

This table shows that there are statistical significant differences between pre& post of the program and pre & follow up of the program regarding Nurse Managers' knowledge about ambiguity management skills and its strategies.



(≥ 60% satisfactory, < 60% unsatisfactory)

Figure (1): Distribution of Nurse Managers Total knowledge regarding ambiguity management skills & its strategies

Reveals that all Nurse Managers had unsatisfactory knowledge level regarding ambiguity management skills and its strategies in preprogram assessment (100%) and satisfactory knowledge level in post and follow up phase (90.9%,and 81.8%) respectively.

Table (4): Distribution of Nurse Managers' Opinions Regarding Educational Program Content

Program Content	Opinion									
	Poor		Pass		Good		Very good		Excellent	
	No.	%	No.	%	No.	%	No	%	No.	%
1. Objectives were realistic.	0	0.0	0	0.0	0	0.0	9	20.5	35	79.5
2. Objectives were measurable.	0	0.0	1	2.3	0	0.0	15	34.1	28	63.6
3. Balance between theoretical and practical part.	0	0.0	0	0.0	6	13.6	9	20.5	29	65.9
4. Topics &time appropriate.	0	0.0	0	0.0	1	2.3	6	13.6	37	84.1
5. All objectives were covered.	0	0.0	0	0.0	0	0.0	10	22.7	34	77.3
6. Match trainee levels.	0	0.0	0	0.0	1	2.3	11	25	32	72.7
7. Up to date information.	0	0.0	0	0.0	1	2.3	6	13.6	37	84.1
8. Compatible with educational activities.	0	0.0	0	0.0	0	0.0	8	18.2	36	81.8
9. Clear.	0	0.0	2	4.5	2	4.5	7	15.9	33	75.0
10. Attractive.	0	0.0	2	4.5	3	6.8	8	18.2	31	70.5

This table depicts that Nurse Managers' opinions are excellent regarding topics &time appropriate, up to date information, and compatible with educational activities of educational program content (84.1% , 84.1%, & 81.8%) respectively.

Table (5): Distribution of Nurse Managers' Opinions Regarding Educational Program Appropriateness

Program Appropriateness	Opinion									
	Poor		Pass		Good		Very good		Excellent	
	No.	%	No.	%	No.	%	No.	%	No.	%
1. Date of implementation.	0	0.0	0	0.0	0	0.0	7	15.9	37	84.1
2. Time of each session.	0	0.0	0	0.0	0	0.0	10	22.7	34	77.3
3. Duration.	0	0.0	1	2.3	1	2.3	9	20.5	33	75.0
4. Training hall preparation.	2	4.5	0	0.0	4	9.1	10	22.7	28	63.6
5. Training hall organization.	0	0.0	0	0.0	2	4.5	12	27.3	30	68.2
6. Supportive services (break, audiovisual aids).	0	0.0	0	0.0	1	2.3	4	9.1	39	88.6

This table depicts that the highest percentage of Nurse Managers' opinions are excellent regarding supportive services (break, audiovisual aids), date of implementation, and time of each session of educational program appropriateness (88.6%, 84.1%, & 77.3%) respectively.

Discussion:

Today's leaders and managers have to choose from various leadership styles and growth strategies. They are dealing with driving forces that are causing change like never before. Dealing with ambiguous situations when see that there is more than one solution to a problem, but aren't sure which one to do (**Harper & Row, 2016**). It might be when the manager come to a conclusion about a situation, but before can act on it; the situation has already changed (**Elliot, 2013**). This study aims to developing and implementing an educational program about strategies and skills of ambiguity management for Nurse Managers to improve the organization change in to positive manner.

The highest percentage of Nurse Managers had a low level of knowledge in the preprogram implementation phase (81.8%). All Nurse Managers had unsatisfactory knowledge regarding ambiguity management skills and its strategies (100%) among the studied subject. So the researcher passionate to development the Nurse Managers knowledge about strategies and skills of ambiguity management those help them to change.

This finding consistent with **Norton, (2011)** who reported that, acting and making decisions with incomplete information, adapting to change, working without complete direction, imagining what's possible in an uncertain future, knowing when to change the manager mind—these are critical competencies no longer reserved for the executive floor. And

added **Will, (2014)** where he explained— from this study that the good management design should encourage the ongoing reduction of ambiguity wherever it is possible

The current study there were statistically significant differences between pre& post and pre & follow up phase's regarding Nurse Managers' knowledge about ambiguity management skills and its strategies. There were improvements immediately after implementation of the educational program. This improvement was mostly retained after three months (follow up) with a slight decline from immediate post program implementation and it was still higher when compared with pre implementation level.

This finding consistent with **Jack, (2014)** when talked about professional development in his article by who showed that the differences between training and education or trainers and teachers. In a look at the education versus experience debate and in an earlier post, the difference between training and teaching, it made a few comparisons. This time the thought it might be interesting.

Also consistence with **Ankush, (2016)** when he talked about elimination of ambiguity saying filling the knowledge gap is often the clearest path to managing the kinds of ambiguity in most situations in the work. It requires an understanding of the manager learning style and the confidence to to hide the manager ignorance can act as fuel for the fire that will only make the fog denser.

Added **Eisenberg, (2017)** reported that, the ambiguous times it more important than ever to really connect at a human level. The manager need to understand what the manager team is thinking and feeling, and they need to know that the manager genuinely have their best interests at heart. It's not easy. But, tackling the topic head-on will save a lot of wasted time and emotional energy for the manager and the manager team, and the manager will prepare the manager team members for larger roles in the process. So, essays on communication, organization, and identity are a provocative journey through the development of a new aesthetics of communication that rejects all fundamentalisms and embraces a contingent world-view.

Moreover **Wikipedia, (2017)** reported that the Nurse Manager who is able to deal with ambiguity in effectively manner by cope with change, shift gears comfortably, decide and act without having the total picture, and handle risk and uncertainty.

Finally **Zach, (2018)** explored that the ambiguity can play a positive role but in many instances, the lack of clarity and direction is stifling and it hinders production and positive outcomes. Taking a head-on approach to ambiguity improves morale and overall direction/ Happy employees are more productive and the effect is contagious across the entire organization. **And he added that,** Implement employee programs to open clear lines of communication while building morale among coworkers. Also, encourage employees to utilize their breaks, vacations and benefits to remain healthy and productive. Adding specific programs, such as childcare and gym memberships, will reward employees and will create a sense of community and purpose. Ambiguity is the result of indifference and a lack of purpose or security. Solving for those specific problems can turnaround morale and performance in the work.

Conclusion:

This study there was statistically significant differences between pre& post and pre & follow up phase's regarding Nurse Managers' knowledge about ambiguity management skills and its strategies. There were improvements immediately after implementation of the educational program. This improvement was mostly retained after three

months (follow up) with a slight decline from immediate post program implementation and it was still higher when compared with pre implementation level. The highest percentage of Nurse Managers mentioned that educational program contents were excellent and appropriate regarding all items.

Recommendations:

The researchers recommended the following: further training for nurses and introduce the concept of ambiguity management skills and its strategies, establishing a small nursing library at hospital departments. Further research studies are needed to enhancing nurse's productivity, and commitment.

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