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Effect of evidence based management and leadership training program on decision making skills of nurse managers

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Abstract---Aim: The current study evaluate the effect of evidence based management and leadership training program on decision making skills of nurse managers Design:A quasi experimental design was utilized with pre-posttest measurements taken immediately and after three months of giving the training program. Setting: This study was conducted at selected hospital which affiliated to Cairo University. Sample: A purposive sample of a (No.30) Nurse Managers was recruited in the present study. Tools: Data was collected by Organizational Readiness for Implementing Evidence-Based Management and Leadership Questionnaire; Evidence-Based Management and Leadership Knowledge Test; Evidence-Based Management and Leadership Utilization for Decision Making Observational Checklist; Attitudes toward Evidence-Based Management and Leadership Application Questionnaire; Evidence based decision making Skills Observational Checklist. Results: the findings revealed an improvement in the knowledge mean scores of nurse managers in the immediate posttest and follow-up test scores. Furthermore, statistically significant differences discovered between nurse managers' usage of EBDM in their practice throughout pre, immediate post, and follow up, as they had the highest mean scores immediately post program and after three months relative to program pre implementation; additionally, nurse managers convey a positive attitude and good response toward EBML implementation within an organization. Conclusion: The implementation of EBML program

improved the nurse's manager perceptions and improved their ability to use EBML concept in their area of work to improve their decision making skills. Recommendations: Providing a training program for the different level of nurses to develop competence for using EBML.

Keywords---evidence base management, leadership, decision making, nurse manager.

Introduction

Healthcare organization manager decisions have a significant impact on service quality and hospital success (Guo, 2017). If healthcare managers don't able to follow evidence-based decision making (EBDM) they will face some problems such as disorganization and useless work (Agarwal, 2016). The decision-making approach and daily practice helps health care managers and practitioners to be critically thinking and able to evaluate the extent information that can trust the evidence they have. Therefore, Evidence-based management seeks to improve the way decisions are made to avoid the first line of bad decisions, poor outcomes and little understanding of why practice go wrong (Barends & Villeneuve, 2017; Agarwal & Green, 2016). Consequently, managers are forced to use evidence-based management (EBMgt) to be effective manager to improve patient outcome. Evidence-based management improves organizational and managerial decisions by bridging theory and practice gaps, which has a critical impact on hospital performance (Liang & Howard, 2018). In context of nursing management, Evidence is transformed into management decisions within the organizational context, regardless of whether it is disseminated to managers through education and training or through their own methods of choice, and it is not always used rationally. EBMg is a multi-level approach expressed at the individual, organizational, and institutional levels, but EBMg process is influenced by cross-level constructs at the individual, or independently and interactively with other levels (Mears, 2019).

Decision making is the core of managerial tasks but often managers make decisions under pressure and with incomplete information. While some managers justify their choices on outdated information, personal experience, individual observation, or gut feelings. In addition, managers are confronted by an overload of information and engage in practices which are hard to evaluate and sometimes irrelevant to the organization and context (Al-Jubouri et al., 2021). The results of poorly supported decisions are choices that waste resources and even risk the future of the organization. Many managers simply need guidance to make decisions based on reliable evidence (Pfeffer & Sutton, 2009). Recent studies show that only 15 percent of managers decisions are evidence based (Agarwal, 2016). Evidence-based decision making (EBDM) is the process of basing decisions about ways to address a problem on objective information in order to achieve the best results (Clement, 2015). Many studies showed that priority setting in the management process was in the context of budget cycles and allocation of funds and not necessarily by evidence and others have documented the political and technical resistance to operational responsibility of the decisions as being an influence to management process. (Kwamie, 2016). The evidence-based decision-

making aims to achieve effective decisions based on data and information analysis. According to the application of the evidence-based decision-making principle would bring about the following benefits: 1) Understanding how decisions are made (informed decisions); 2) Increasing the ability to demonstrate the effectiveness of past decisions by looking at recorded actual data; and 3) Improving the ability to review opinions, and challenge and change them as well as the decisions (Butler et al., 2017).

Significance of the Study

Decision making is the core of managerial tasks but often managers make decisions under pressure and with incomplete information. While some managers justify their choices on outdated information, experience, individual observation, or gut feelings. In addition, managers are confronted by an overload of information engaged in practices that hard to evaluate and irrelevant to organization context. The results of poorly supported decisions are choices that waste resources and even risk the future of the organization. Many managers simply need guidance to make decisions based on reliable evidence (Pfeffer & Sutton, 2006). The use of Evidence-based leadership and management in nursing hasn't yet been broadly examined, but early research suggests; It has the potential to aid nurse managers with tasks such as improving working conditions, decreasing turnover rates, implementing policy, strategic planning, and more. There is no evidence of studies has previously been conducted in Egypt regarding the effect of evidence based leadership and management training program on decision making abilities of first line nurse managers. Thus this study generate an updated recommendations backed on sound evidence based data produced from the study results, for further Nursing Administration Researches, leading and managing nursing work force and nursing education to improve quality of care.

Aim of the study

The aim of study was to evaluate the effect of evidence based management and leadership training program on decision making skills of nurse managers.

Research design

A quasi experimental design with pre-test, intervention, and post-test measurements undertaken immediately and after three months of giving the training program

Research sample

A purposive sample of a (No.30) Nurse Managers will be recruited to carry out the present study.

Research Hypothesis

To fulfil the aim of the study, the following hypothesis will be formulated:

- H1 - Immediately after the training program implementation and 3-months later, the study participants EBML test scores will be improved compared to pre-program Implementation test scores
- H2- Immediately after the training program implementation and 3-months later, the study participants EBML knowledge mean scores' will be improved compared to pre-program implementation mean scores
- H3- Immediately after the training Program implementation and 3-months later, the study participants Attitude towards EBML practice mean scores will be improved compared to pre-program Implementation mean scores
- H4- Immediately after the training Program implementation and 3-months later, the study participants EBDM mean scores will be improved compared to pre-program Implementation mean scores
- H5- A significant relationship will be found among the study participants' "EBML knowledge, practice and EBDM skills mean scores throughout the training program.

Tools of Data Collection

Seven tools developed by the investigator based on literature review.

Demographic and work related data form for nursing managers

this form contain personal data about (age, gender, and marital status); work-related data (educational level, experience, place of work).

Organizational readiness for implementing evidence-based management and leadership (EBML) questionnaire

A structured questionnaire developed by the investigator based on literature review to assess the Organizational Readiness for Implementing EBML and Decision Making process. This questionnaire includes 5 dimensions; EBML culture Awareness; EBML resources available in their work; Evaluation Capacity of organization for EBML application; EBML Application climate cultivation and EBML Partnerships to support for EBDM information.

Evidence-based management and leadership (EBML) knowledge test (pre, post and retention test)

A questionnaire developed by the investigator based on literature review to assess the participants' knowledge regarding Evidence-based management and leadership application throughout the program (Pre, Post and Retention Test). The Knowledge Test includes the following dimensions, Organizational Readiness for Adopting (EBML) ,Overview on nurse managers Managerial and Leadership, Overview on the (EBML) , (EBM) in Nursing ,Evidence-based nurse manager's skills, (EBL) , Innovation, and Entrepreneurship in Nursing and Healthcare, Managerial and Clinical Decision Making and Evidence Based Decisions making skills.

Evidence-based management and leadership (EBML) utilization for decision making observational checklist (pre- immediate – evaluative follow-up)

Observational checklist be developed by the investigator based on literature review; includes the following dimensions ; Evidence Based Planning and Organizing Activities; Evidence Based Human resources Management; Evidence Based Leadership ; Evidence Based Communication And Conflict Resolutions; Evidence Based Quality Improvement ; Evidence Based Safety Activities; Evidence Based Controlling Activities.

Attitudes toward evidence-based management and leadership (EBML) application questionnaire (pre- immediate – evaluative follow-up)

Developed by the investigator based on review of related literature. It used to assess the study participants Attitudes toward (EBML) Application throughout the Program.

Evidence based decision making (EBDM) skills observational checklist

The observational checklist developed by the investigator based on the review of related literature. This observational checklist have (29 Item) used to assess the Evidence based decision making (EBDM) Skills of the study participants throughout the training program using (EBDM) hypothetical Scenarios.

Participants' Reaction Questionnaire

This tool adopted from Morgan and Casper (2000) to assess the outcome of the training program.

Validity

The developed tools was submitted to the panel of experts in the field of nursing administration from the faculty of nursing, Cairo University.

Reliability

Tool reliability was tested, probability (p-value) less than 0.05 was considered significant and less than 0.001 considered as highly significant.

Procedure

A primary official permission obtained from the Research Ethics Committee, Faculty of Nursing, and Cairo University, then the official permission from the administrative personnel from selected hospital to carry out the study. The Procedure will be carried out on three phases of Kurt Lewin's Change Management Theory.

Unfreeze

Investigator was review the up-to-date literature (Textbooks, scientific Journals and internet) that relevant to the study to develop the study tools. also; the investigator assessed the Organizational Readiness For Implementing (EBML) and give Pre- (EBML) test to study Participant's to decide the baseline levels of the study participants knowledge, besides, the investigator observe the study Participant's Pre- Program (EBML) application , observe the Pre- Program (EBDM) skills . In Addition, the investigator assessed the Attitudes toward (EBML) application.

Change (Moving)

Which is the implementation of change, at the first session an orientation of program and its purpose took place, and mention the duration and sessions place. Immediately after the implementation of the programs, post - program assessment done as regard to (EBML) Knowledge (post, test). Also, the investigator observe the study Participant's post - Program (EBML) application. In Addition, assess the Attitudes toward (EBML) application and finally observe the study Participant's post - Program (EBDM) skills. And assess the Participant reaction to assess the outcome of program.

Third phase: Refreezing

After 3-months later of the program implementation, the investigator evaluate the effect of the program using the same following tools; the study participants evaluated as regard (EBML) Knowledge (follow up, test), also, observed for (EBML) application. In Addition, the Attitudes toward (EBML) application assessed and finally the investigator observed the study Participant's (EBDM) skills.

Results

Table 1
Frequency distribution of nurses manger according to their personal characteristics (N=30)

Variables	Values	NO.	%
Gender	Female	26	86.7
	Male	4	13.3
Age	25-<35	7	23.3
	35-<45	14	46.7
	45+	9	30.0
	Mean $\pm$ SD		1.87 $\pm$ 1.04
Experience			
	0 $\geq$ 5	0	0
	5-<10	8	26.7
	10+	22	73.3
Education	Bachelor	21	70.0
	Diploma	4	13.3

	Master	5	16.7
Work shift	Fixed	30	100.0
	Rotation	0	0
EBDM training program	No	30	100.0
	Yes	0	0
Research	No	30	100.0
	Yes	0	0

Table (1) showed that majority (86%) of nurse manger were females, around have of them (46.7%) were aged between 35-45 years. And three quarters (73.3%) of them had more than 10 years of experience; also, 70% of them were bachelor degree in nursing. also statistics represent that all of study sample (100%) working fixed shift and did not attend any training program related to EBM, and didn't make any research paper.

Table 2
Organizational readiness dimensions levels of the studied sample (n=30)

Organizational readiness dimensions	Low		Moderate		high	
	No.	%	No.	%	No.	%
Organizational capacity	20	66.7	10	33.3	0	0.0
Staff awareness	23	76.7	7	23.3	0	0.0
Manger Recognition to embrace EBML	28	93.3	2	6.7	0	0.0
Culture to embrace EBML	18	60.0	11	36.7	1	3.3
resources to embrace EBML	25	83.3	5	16.7	0	0.0

Table (2) show organization readiness according different dimension from nurse manger view; it is no evidence of high organization readiness for implying the EBML with p- value (0.0%). The low recognition level to embrace EBML presented in all aspects from staff manger (93.3%) for Manger Recognition & perceptions to embrace EBML and no readiness to adopt EBML practice EXCEPT (3.3%) at Culture to embrace EBML.

Table 3
Study Sample correct Knowledge at three times of assessment (n=30)

Items	Pre		Post	Follow up			Chi-square	p-value
	No.	%		No.	%	No.		
Dimensions								
Management and leadership	8	25	24	79	12	39	20.00	0.001*
Decision making	8	25	25	82	10	34	21.89	0.001*
Evidence base	8	25	23	78	10	33	18.15	0.001*
Evidence base management and leadership	7	22	23	78	11	37	21.33	0.001*
Innovation	6	21	24	80	8	28	27.00	0.001*
Total	7	23.6	24	79.4	10	34.2	23.31	0.001*

*significant at p-value<0.05.

Table (3) show statically significant increase in all dimensions of EBDM knowledge test; 25% of nurse manger program score about management and leadership; decision making and evidence base; while post program test score was increase by respectively 79%;82 and 78 and in follow up were 39%;34%and 33%.

Table 4
Comparison of Total knowledge of studied sample at three times of assessment
(n=30)

Knowledge	Pre program		Post-program Immediate		Follow up program (3 months)		ANOVA test	p-value
	Mean	SD	Mean	SD	Mean	SD		
Total	13.1	3.1	43.6	2.5	18.7	4.1	707.9	0.0001*
Total (%)	23.8	5.6	79.3	4.5	34.1	7.6	707.9	0.0001*

Table (4) shows a significant increase in knowledge total, the study sample knowledge was 23.8% preprogram while post-program, knowledge was 79.3% and in follow up stage, knowledge was 34%.

Table 5
Comparison of Evidence-Based management and leadership process completion for decision making (N0=30)

Dimensions	Complete at Pre		Complete at Post		Complete at Follow up		Chi-square	p-value
	No.	%	No.	%	No.	%		
Evidence Based Planning	7	24.3	6	20	6	21.4	0.19	0.661
Evidence Based Organizing activities	3	10.0	9	29	8	26.9	7.50	0.006*
Evidence Based Human resources Management Activities	3	10.0	8	27	7	24.3	5.68	0.017*
Evidence Based Leadership activities	4	13.3	6	20	6	20.0	1.00	0.317
Evidence Based Controlling activity	2	6.6	6	20	4	13.2	5.00	0.025*
Total	3	10.0	7	24.3	6	20.0	4.00	0.046*

*significant at p-value<0.05

Table (5) shows that practice of Evidence Based Management and leadership of studied sample, there was a significant difference between the three times of assessment for most dimensions and for total. Percent of complete steps increased from around 10% to 25% post program for all dimensions and for total while it was around 20% in follow-up

Table 6
Mean differences of skills for evidence based decision making dimensions
throughout the program (pre, immediate post and follow-up) (n=30)

Dimensions	Pre		Post		Follow up		ANOVA test	p-value
	Mean	SD	Mean	SD	Mean	SD		
Implementation of EBDM	0.15	0.09	0.36	0.30	0.27	0.30	15.38	.0001*
Creating a supportive culture for EBDM	0.33	0.04	0.75	0.17	0.55	0.31	89.26	.0001*
Building capacity for EBDM	0.25	0.10	0.19	0.20	0.25	0.35	79.11	.0001*
Resources availability for EBDM	0.28	0.08	0.43	0.29	0.36	0.39	81.38	.0001*
Evaluation capacity for using EBDM	0.01	0.10	0.67	0.00	0.32	0.33	157.10	.0001*
Climate cultivation for EBDM	0.54	0.01	0.40	0.16	0.47	0.30	69.64	.0001*
Partnerships to support EBDM	0.01	0.08	0.61	0.13	0.30	0.36	133.01	.0001*
Total	0.22	0.07	0.49	0.18	0.36	0.33	89.27	.0001*

*significant at p-value<0.05

Table (6) shows that regarding all dimensions of skills of studied sample, there was a significant increase in the mean of most items post program but it declined a little in follow up stage. Creating a supportive culture. Increased from 33% to 75% post program then 55% at follow up. Total skills. Increased from 22% to 49% then 36%.

Table 7
Study sample utilization of EBML by levels according to Knowledge, attitude and skills according to level of EDML at program stage (n=30)

Program stages	Pre stage						Post stage						Follow up stage					
	Incomplete		Complete		ANOVA A test	p-value	Incomplete		Complete		ANOVA test	p-value	Incomplete		Complete		ANOVA test	p-value
	Mean	SD	Mean	SD			Mean	SD	Mean	SD			Mean	SD	Mean	SD		
knowledge	13.1	3.1	----	---	----	----	43.9	2.8	43.5	2.1	.157	.695	17.2	3.9	19.4	4.1	1.801	.190
attitude	98.9	5.9	----	---	----	---	108.7	135.4	102.7	4.07	3.224	.083	97.3	5.2	99.9	4.7	1.721	.200
skills	161.7	129.8	----	---	----	----	161.1	110.2	167.5	108.4	2.355	.136	171.1	144.9	165.7	103.4	1.320	.260

Table (7) stated that there isn't significance difference between EBML utilization according study sample knowledge, attitude and skills along three program stage. Also the investigator found the highest mean level of completion (mean = 167.5) for study sample EBDM skills at post program stage. Moreover they represent low level of completion at follow up stage for EBDM knowledge.

Table 8
The most Predictors of EDML utilization for managers D.M through post program stage (n=30)

Predictors	Regression coefficient	Standard error of coefficient	t-value	p-value
Gender	.231	2.040	.113	.911
Age	.903	1.043	.866	.397
Experience	-1.287	1.998	-.644	.527
Education	-.323	.763	-.423	.677
Job title	.475	.686	.692	.497
Work specialty	.341	.253	1.344	.194
knowledge	-.131	.224	-.587	.564
attitude	-.013	.058	-.224	.825
skills	.030	.051	.582	.567

Table (8) presented that no significant relation between EBML predictors for nurse manger DM skills through post program stage at most of study sample aspects.

Table 9
The most Predictors of EDML utilization for nurse manger DM at follow up program stage (n=30)

Predictors	Regression coefficient	Standard error of coefficient	t-value	p-value
Gender	1.509	2.018	.748	.463
Age	-.094	1.057	-.089	.930
Experience	.320	1.985	.161	.874
Education	-1.155	.761	-1.518	.145
Job title	.398	.603	.660	.517
Work specialty	.238	.229	1.041	.310
knowledge	.065	.123	.532	.600
attitude	.011	.100	.113	.911
skills	-.030	.044	-.692	.497

Table (9) presented that no significant relation between EBML predictors for nurse manger DM through follow up program stage at most of study sample aspects.

Table 10
Final model for predictors of EDML utilization for nurse manger DM at post and follow up stage of program (n=30)

Predictors	Regression coefficient	Standard error of coefficient	t-value	p-value
knowledge	.285	.042	6.713	.0001*

*significant at p-value<0.05

Table (10) stated the final model for EBML predictors at post and follow up stage is knowledge with p value (.0001*).

Discussion

The current study's findings are compared to those of previous related studies, contemporary literature, and the researcher's interpretation of similar and contradictory findings. Socio-demographic data indicate that the majority of nurse managers were females, a finding that is supported by the fact that approximately ten percent of men have recently entered the nursing profession, despite the traditional conception of nursing as a feminine occupation. In addition, most nurse managers have a bachelor's degree in nursing. This research clarified that the majority of our nursing graduates were employed as head nurses at government hospitals. Overall, the results indicate that they had little or no knowledge of EBML; it is still a relatively new topic for them. (Evans, 2016 & Black, et al 2015) mention it is important for nurse's managers and leaders to complete their studies to improve their practise because the higher level of education are more likely to use research findings, such as in nurses with a master's degree who have taken a specialised course in nursing research as part of their curriculum.

The majority of nurse managers concur that their organisation has a low level of readiness to embrace EBML practises, as indicated by the study's findings. Possible explanation for this discovery is that the majority of our government hospitals lack infrastructure equipment like as computers, libraries, and internet access for employees. In addition, the nursing shortage is a major issue that contributes to staff opposition to adopting new methods as a result of increased workload, lack of planning for nursing updates, and absence of a motivating environment characterised by the presence of incentives or upgrading for evidence-based staff. In addition, the study revealed that a minority of nurse managers are familiar with the origin and source of evidence, and that their understanding was strengthened post-program. This result was reinforced by Karki and Acharya (2015), who found that the highest reported gaps in knowledge and skills were Research skills, followed by turning information needs into questions, understanding of information types and sources, and critical evaluation.

The knowledge and skills test scores of study managers who received EBML training increased; these results were supported by studies conducted on occupational therapists and social workers, who reported improvements in EBML knowledge and skills immediately following training and after three months and eight months of follow-up, respectively (Macphee, 2020). Knowledge sharing is one of the key phases in decision making processes, according to a recent study (Nedjat S, 2018). This conclusion was corroborated by (Nedjat S, 2018) which found that Knowledge sharing is one of the fundamental steps in the decision making process. The study found no statistically significant difference between nurse manager responses ($p = 0.114$) regarding failures in monitoring and managing performance, as well as failures in ensuring the quality of data used for performance measurement, available inpatient administrative data, and clinical performance and outcomes. This result contradicted Angela's (2017) assertion that nurse managers from high performance units (HPUs) and poor performance units (LPUs) defined hospital nursing units responsible for initiating EBML change and implementing EBML practises.

No statistically significant difference was found between nurse manager completion of evidence base controlling and failure in monitoring and managing quality as poor measurement of the quality of health care ($p = 0.480$); this conclusion was not supported (Stephen, 2019). On the majority of reported measures, non-accredited hospitals performed worse than accredited hospitals. (Commission Mixte; 2016). Accredited hospitals considerably outperformed non-accredited hospitals on 13 of the 16 individual performance metrics against standers. Regarding the creation of a culture supportive of the implementation of EBDM, the results of a study indicate a statistically significant difference for the issue of providing staff nurses with opportunities to attend training on evidence-based decision making ($p \text{ value} = .000^*$) in order to improve their performance and apply new measures to provide high-quality nursing care; this is supported by Kathleen (2017), who states Organizational climate and culture are the foundation for the success of any change initiative. Access to knowledge, encouragement of creativity, and a commitment to learning are elements of the organisational culture and climate.

Karamitri (2015) stated Staff at high-capacity leaders had better access to more material or trainings to obtain fresh information and ideas that would improve the leaders' overall adaptability. In contrast, workers at low-capacity leaders had limited access to online or printed paper journals and had conflicting sentiments regarding leaders' support for EBPs; one staff member stated, "I've found it from my director, but not always from other leaders." Ensure that the work group's evidence-based decision-making continues to satisfy the requirements of the community and that the findings of the intervention assessment are disseminated with a $p \text{ value}$ of (000^*). This result is corroborated by Mackey A and Bassendowski (2017) EB Management in nursing care practise has the ability to improve care quality and generate benefits for patients, the community, and the healthcare system. In reality, the implementation and utilisation of evidence base management are gaining importance for the creation and dissemination of new knowledge about practise, research, and fresh evidence (Shaw, Baker, and Gillies, 2015 & Davis, 2013; Innis & Berta, 2016; Lewin et al., 2018).

This growth in usage and availability of internet resources provides nurses with global possibilities to learn from and collaborate with others. Additionally, collaborative efforts between nurse managers, nursing administration, researchers, educators, and clinical nurses are required to promote research utilisation and dissemination in these settings (Rycroft-Malone, 2016). This study demonstrates that in order to provide effective and necessary support, managers must not only have a foundational understanding of EBML practise, but also be aware of the implementation of evidence and new research, as well as understand their essential role in fostering the optimal environment. In addition, the study demonstrates that many determinants of EBML usage and management require organisational and administrative assistance, notably in terms of sharing open-access and online resources to support EBML. (Chiwaula, 2018) claimed that the model case "showed the ideal application of EBM qualities and highlighted areas that must be changed to make the EBM process successful." Using empirical referents in the study was intended to demonstrate how EBM can be quantified in practise and aid in the development of indicators for observable behaviour that can highlight instances of EBM in nursing practise.

Therefore, nurse managers with varying degrees of experience, specialisation, and competency could begin to comprehend their potential to influence the adoption of EBML. This study gives predictors for all nursing leaders, regardless of their current standing, to go forward in terms of facilitating or obstructing EBML. Finally, the EBML training programme resulted in a considerable increase in the knowledge and skills of nurse managers post-training. At three months after training, it is possible to observe improvements in the majority of training domains and where certain managers were evaluated in their field of practise. When these gains are recorded, they show the genuine impact of the programme execution. Due to the poor pre-training scores on EBML's nature and other parts of the training programme, the expected and acknowledged improvement was anticipated. Overall, we emphasise that nurse managers need to be better prepared for leading the translation of evidence into practise (White, Dudley-Brown, & Terhaar, 2016) and that they need to begin gaining a better understanding of evidence-based management and leadership practise (Walshe & Rundall, 2014) in order to redesign nursing care and actively support EBDM. Therefore, additional study is required to identify the scope of EBDM in other areas of health care practise, as well as methods for empowering nurses and nurse managers to pioneer and promote EBML projects and practises in their work.

References

- Al-Jubouri, M. B., AL-Fayyadh, S., Jaafar, S. A., Alabdulaziz, H., Nashwan, A. J., Jahlan, I. O., & Shaban, M. (2021). Incivility among Arabic-speaking nursing faculty: testing the psychometric properties of the Arabic version of incivility in nursing education-revised. *International Journal of Nursing Education Scholarship*, 18(1). <https://doi.org/10.1515/ijnes-2021-0020>
- Ausden and Walsh, (2020). The use of evidence in decision-making by practitioners W.J. Sutherland, P.N.M. Brotherton, Z.G. Davies, N. Ockendon, N. Pettorelli, J.A. Vickery (Eds.), *Conservation research, policy and practice*, Cambridge University Press pp. 145-161.
- Barends E, Villanueva J, Rousseau DM, Briner RB, Jepsen DM, Houghton E, Ten Have S. (2017) Managerial attitudes and perceived barriers regarding evidence-based management practice: An international survey. 10.1371/journal.pone.0184594.
- Bawaningtyas, B. B., Perizade, B., Zunaidah, Z., & Soebyakto, B. B. (2021). Effect of e-learning and organizational commitment on nurse performance: (case study for intensive and outstanding nurses at Siloam Sriwijaya Hospital Palembang). *International Journal of Health & Medical Sciences*, 4(1), 169-181. <https://doi.org/10.31295/ijhms.v4n1.1675>
- Butler, S and Topham, G (2017) Uber Stripped of London Licence Due to Lack of Corporate Responsibility, The Guardian, www.theguardian.com/technology/2017/sep/22/uber-licence-transport-for-london-tfl.
- Evans,S.,Upton, P &Upton, D.,(2016). Evidence-based practice in physiotherapy: asystematic review of barriers, enablers and interventions.
- Gabutti, I., & Cicchetti, A. (2020). Translating strategy into practice: A tool to understand organizational change in a Spanish university hospital. An in-

- depth analysis in Hospital Clinic. *International Journal of Healthcare Management*.
- Gibbert WS, Keating SM, Jacobs JA, et al. (2017) Training the workforce in evidence-based public health: an evaluation of impact among US and international practitioners. *Prev Chronic*.
- Guo R, Berkshire SD, Fulton LV, Hermanson PM (2017): Use of evidence-based management in healthcare administration decision-making. *Leadership in Health Services*. 30(3):330-42.
- Karamitri I, Talias MA, Bellali T. (2015) Knowledge management practices in healthcare settings: a systematic review. *The International journal of health planning and management*.
- Kathleen Duggan, Kristelle Aisaka , Rachel G. Tabak , Carson Smith , Paul Erwin and Ross Brownson (2017) Implementing administrative evidence based practices: lessons from the field in six local health departments across the United States Duggan et al. *BMC Health Services Research* .
- Kwamie A, van Dijk H, Ansah EK, Agyepong IA. (2016) the path dependence of district manager decision-space in Ghana. *Health Policy Plan*. 2016 Apr;31(3):356-66. doi: 10.1093/heapol/czv069. Epub 2015 Aug 28.
- Lewis CC, Proctor EK, Brownson RB. (2018) Measurement issues in dissemination and implementation research. In: Brownson RC, Colditz GA, Proctor EK, eds. *Dissemination and Implementation Research in Health: Translating Science to Practice*.
- Liang, Z.Z., Howard, P.P. and Rasa, J.J. (2018), "Evidence-informed managerial decision-making: what evidence counts?", *Asia Pacific Journal of Health Management*, Vol. 6 No. 1, pp. 23-29.
- Mackey A, Bassendowski S. (2017). The history of evidence-based practice in nursing education and practice. *J Prof Nurs*.
- Macphee M, Dahinten VS, Hejazi S, Laschinger H, Kazanjian A, Sommerbakk R, Haugen DF, Tjora A, Kaasa S, Hjermstad MJ. (2020) Barriers to and facilitators for implementing quality improvements in palliative care—results from a qualitative interview study in Norway.
- Mears, D. P. (2019). *American criminal justice policy: An evaluation approach to increasing accountability and effectiveness of evidence base decision making*. New York: Cambridge University Press.
- Mona Davies , Maxim, Paul S., Len Garis, and Darryl Plecas, (2015) *The Right Decision: Evidence-based Decision Making for Police Service Professionals*, Canadian Association of Chiefs of Police Research Foundation.pp1-108.
- Nedjat S, Gholami J, Yazdizadeh B, Nedjat S, Maleki K, Majdzadeh R. (2018) Research's Practice and Barriers of Knowledge Translation in Iran. *Iranian journal of public health*.
- Pfeffer, J. and Sutton, R. I. (2009), 'Suppose We Took Evidence-Based Management Seriously: Implications for Reading and Writing Management', *Academy of Management Learning and Education*, Vol. 6 No. 1, pp. 153-155.
- Rousseau, D., Manning, J. and Denyer, D. (2018), 'Evidence in Management and Organizational Science: Assembling the Field's Full Weight of Scientific Knowledge Through Syntheses', *The Academy of Management Annals*, Vol. 2 No. 1, pp. 475-515.
- Ruchi Agarwal & Jake Ansell (2016), Strategic Change in Enterprise Risk Management RESEARCH ARTICLE *Strat. Change*25: 427–439 (2016)

- Published online in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/jsc.207.
- Rycroft-Malone, J., Seers, K., Chandler, J., Hawkes, C. A., Crichton, N., Allen, C., Strunin, L. (2016). The role of evidence, context and facilitation in an implementation trial: Implications for the development of the PARIHS framework.
- Shaw B, Baker R, and Gillies C, Hearn Shaw H: (2015) Tailored interventions to overcome identified barriers to change: effects on professional practice and health care outcomes. The Cochrane Database of Systematic Reviews.
- Stephen P. Schmalz, Scott C. Williams, Mark R. Chassin, Jerod M. Loeb, Robert M. Wachter, (2019). Hospital Performance Trends on National Quality Measures and the Association With Joint Commission Accreditation.
- Suryasa, I. W., Rodríguez-Gámez, M., & Koldoris, T. (2021). Get vaccinated when it is your turn and follow the local guidelines. *International Journal of Health Sciences*, 5(3), x-xv. <https://doi.org/10.53730/ijhs.v5n3.2938>
- The Joint Commission. (2016) Facts About Hospital Accreditation. Available at: http://www.jointcommission.org/assets/1/18/Hospital_Accreditation_1_31_11.pdf. Accessed on Feb 16.
- Walshe, K. and Rundall, T. (2014), 'Evidence-based management: from theory to practice in health care', *Milbank Quarterly*, Vol. 79 No. 3, pp. 429-457.
- White, K., Clement, D. and Nayar, P. (2015), 'Evidence-based healthcare management competency evaluation: alumni perceptions', *The Journal of Health Administration Education*, Vol. 23 No. 4, pp. 335-349.