Adverse Events as Learning Tools for Healthcare Practitioners

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Abstract

Purpose: *This study aims at testing whether health care practionners in the study sited are encouraged to report adverse events, receive feedback after incidence reporting and get relevant training after incidence reporting. The study also asks whether the incidence reporting system is effective in the two hospitals from the healthcare practitioners' perspectives.*

Method: *Data was collected using survey questionnaire using simple random sampling procedure to select the study samples. A sample of 400 health practitioners from 2 hospitals in Buraidah, Qassim (King Fahd Specialist Hospital and Buraidah central hospital in Burayadh) was selected in this study. Descriptive and inferential analysis were used to analyze the research questions.*

Results: *Respondents agreed they were encouraged to report and that they received adequate training for this purpose. Participants also reported that the hospital system for reporting the incident is effective, but reported neutral view with the "obtain the feedback from the hospital administration". There were significant differences between the Central hospital and King Fahd hospital in feedback, training and system effectiveness. King Fahd hospital is better in feedback with the overall $\mu = 3.5927$, better in training with the overall $\mu = 3.8333$, also the king Fahd hospital is better in effectiveness of system with the overall $\mu = 3.9045$.*

Conclusion: *It is of utmost importance to develop a culture of learning from mistakes by conducting error meetings and improving the process of recording and addressing errors to enhance patient safety.*

I.   Introduction

Over the past fifteen years, since that seminal document was published, the ubiquitous occurrence of adverse events has been unveiled with clarity and determination,and a greater understanding of the burden due to unsafe care, its characteristics and circumstances is more clear today. Similarly, the science of patient safety, together with a range of specific solutions to relevant patient safety problems have been developed and implemented widely. But, even if adverse events occur with alarming frequency, there is still a large gap in understanding the particular chain of events and the weaknesses, lapses and errors that lead to their occurrence, as well as their specific consequences to patients, clinicians and the organizations[1].

There are still many areas that require particular attention to achieve greater levels of safety in healthcare. One that yet needs to be strengthened and further developed is related to disclosure and reporting of adverse events. Despite the importance of reporting systems to learn about the casual chain and consequences of patient safety incidents, this is an area that requires of further conceptual and technical developments to conduce reporting to effective learning.[2]

The World Health Organization, through its Patient Safety Programme, adopted as a priority the objective to facilitate and stimulate global learning through enhanced reporting of patient safety incidents[1]. Landmark developments were the WHO Draft Guidelines for Adverse Event Reporting and Learning Systems, and the Conceptual Framework for the International Classification for Patient Safety, as well as the Global Community of Practice for Reporting and Learning System Over the last decade, significant changes in existing models of teaching, learning and training have been developed and implemented. Regarding quality, safety and outcomes of patient care, high-performance learning organizations are emerging. Education and training models are being re-designed with structured methods.[3]

Training programs are more efficient when they are implemented in a dedicated training session. Simulation supports acquisition of knowledge and skills in a dedicated and safe environment. It places patients out of risk and the trainees out of time and stress constraints

Errors in healthcare, particularly in the hospital settinghave attracted a great deal of attention since the 1999 report of the Institute of Medicine (IOM), "To Err is Human: Building a Safer Health System."The IOM famously cited an estimate of between 44 000–98 000 deaths per annum due to medical errors.[4]

II.   Statement of the problem

Lack of knowledge about the utilization of the adverse events and the learning process for this events is observed in the Saudi health care system and especially in the King Fahd Specialist Hospital and Buraidah Central Hospital in Buraydah from health practitioners perspective.

Significance of the study: This is a new study on our society has not been studied this subject before. Lack of the awareness   about the educational benefit of adverse events   reporting is noticed among the health care practionners .this study examines whether adverse events reporting is used as learning tools.

In Saudi Arabia, there is no published data quantifying this problem .the aim in this   study is to find out the extent of using adverse events as learning tools

Objective of the study:
The general objective addressed in this paper is evolution the adverse events as learning tools.

Research Questions:
Q1:Are the health care practionners in the hospitals encourage to report the adverse events?
Q2:Do the health care practioners obtain feedback after incidence reporting ?
Q3:Do they get relevant training after incidence reporting ?
Q4:Is the incidence reporting system effective in the study hospitals**?**
Hypothesis:
H0: There is no differences between the King Fahd Specialist Hospital in Buraidah and Buraidah Central Hospital in Buraydah in management of incident report process.

Delimitations:
Statically limitations: this study will be confine the health care practionersin the King Fahad specialist hospital and buraidah central hospital in Buraydah
Time limitations: this study will be done from05/11/1435 – 05/2/1436 AH.
Subject limitations: this study will assessment the learning tools from the adverse events identify stimulation , feedback ,training and the affectivity of the system.

Research design:
Descriptive and inferential study were conducted in King Fahad Specialist Hospital and in Buraidah Central Hospital in Buraidah .

Population of the study:
The participants of this study were all the Physicians, Nurses and Technicians working in both hospitals during the study period. Sample size is 433, 178 participants from King Fahad Specialist Hospital and 222form Buraydah Central Hospital .

Sampling procedure :
The sample of the study was selected randomly using simple random sampling. from the population of the King Fahad Hospital and Buraydah Central Hospital in Buraydah . The sample size is (433).

- **Instrument:**

The survey instrument used in this study is a questionnaire which was developed by the researcher. It also consists from 2 different sections as follows:
Section 1 asks for: personal information.
Section 2 asks for information regarding the incident report as a learning tools, It will measures the training and feedback from incidence reports**.**

Criteria for the scale used in the research to Judge the results of study:

weighted mean	Level
from 1.00 to 1.79	**Strongly disagree**
from 1.80 to 2.59	**Disagree**
from 2.60 to 3.39	**Neutral**
from 3.40 to 4.19	**agree**
from 4.25 to 5.00	**Strongly agree**

Data Collection :
* The research data was collected using structured questionnaire over a period of 2 weeks from the two hospitals..
* The questionnaires was distributed among the (Physicians, nurses , technician), at King Fahad Specialist Hospital and Buraydah Central Hospital in Buraydah.
* Total questionnaires distributed =433. 400questionnaire returned, Response rate =92.4%.

Data analysis:
Data was entered and analyzed using the Statistical Package (SPSS) version 20. Descriptive and inferential analysis has been used (frequencies ,percentages and T-test).

III.   Results of the Study
Question related to the Sample description:

Table(6) the types of the hospitals:

	Frequency	Percent
Central hospital	222	55.5
King Fahd hospital	178	44.5
Total	400	100.0

The above Table showed that (222) of the participants are from the central hospital with percentage (55.5%), while (178) of the participants are from the king Fahd hospital with percentage (44.5%)
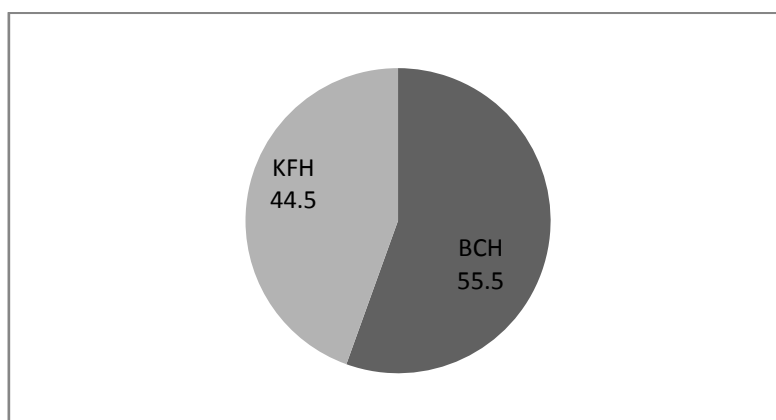

Table (7) Distribution of participants according to gender variable

		Frequency	Percent
	Male	209	52.3
	Female	191	47.8
Total		400	100.0

The above Table showed that (209) of the participants are male with percentage (52.3%), while (191) of the participants are female with percentage (47.8%).
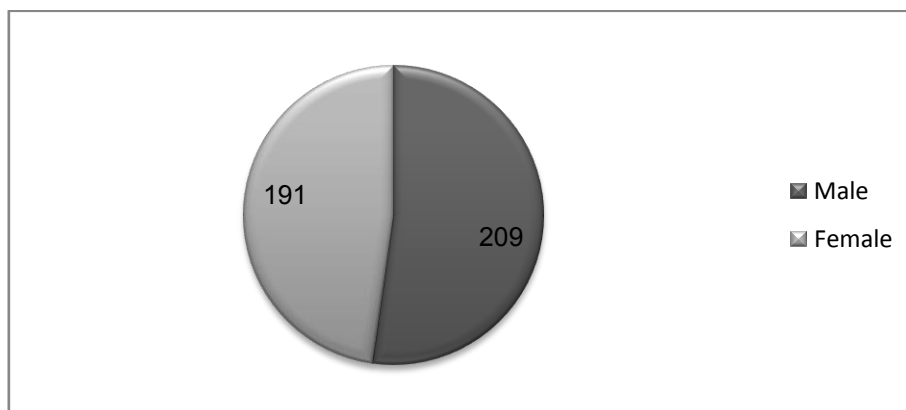
Table (8) Distribution of participants according to nationality variable

		Frequency	Percent
	Saudi	119	29.8
	Non-Saudi	281	70.3
Total		400	100.0

The above Table showed that (119) of the participants are Saudis with percentage (29.8%), while (281) of the participants are non-Saudis with percentage (70.3%).
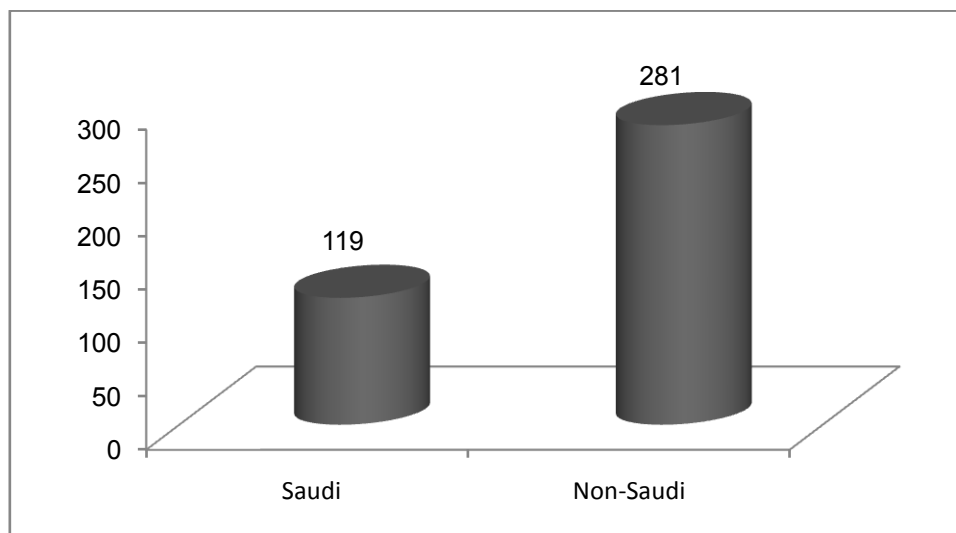

Table (9) Distribution of participants according to occupation variable

		Frequency	Percent
	Physician	149	27.3
	Nurse	219	54.8
	Technician	32	8.0
Total		400	100.0

The above table showed that (149) of the participants are physicians with percentage (27.3%), (219) of the participants are nurses with percentage (54.8%), while (32) of the participants are technicians with percentage (8%)
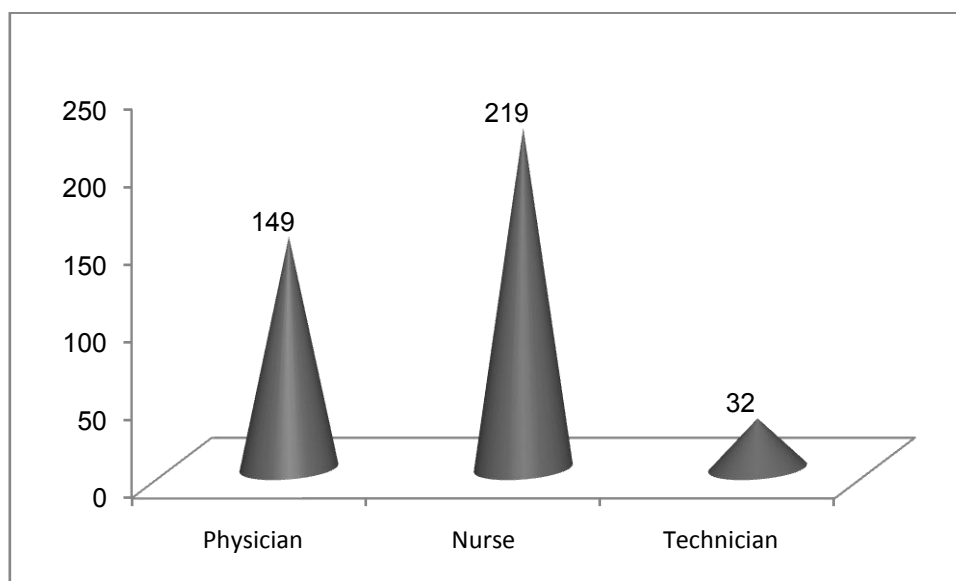
Table (10) Distribution of participants according to level of education variable

		Frequency	Percent
	Diploma	119	29.8
	Bachelor	192	48
	Master	33	8.3
	Board	37	9.3
	other	19	4.8
Total		400	100.0

The above showed that (119) of the participants have diploma degree with percentage (29.8%), (192) of the participants have bachelor degree with percentage (48%), (33) of the participants have master degree with percentage (8.3%), (37) of the participants have board degree with percentage (9.3%), while (19) of the participants have others with percentage (9.3%).
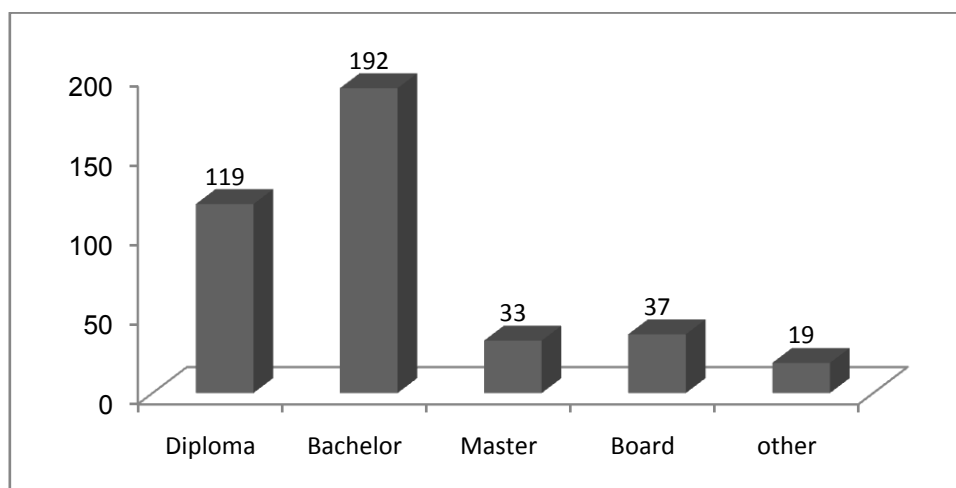

Table (11) Distribution of participants according to age variable

		Frequency	Percent
	20 <= 30 yrs	250	62.5
	31 <= 40 yrs	68	17
	41 <= 50 yrs	60	15
	51 yrs and above	22	5.5
Total		400	100.0

The above showed that (250) of the participants' age in the range (20 <= 30 yrs), with percentage (62.5%), (68) of the participants' age in the range (31 <= 40 yrs), with percentage (17%), (60) of the participants' age in the range (41 <= 50 yrs), with percentage (15%), while (22) of the participants' age 51 yrs and over with percentage (5.5%).
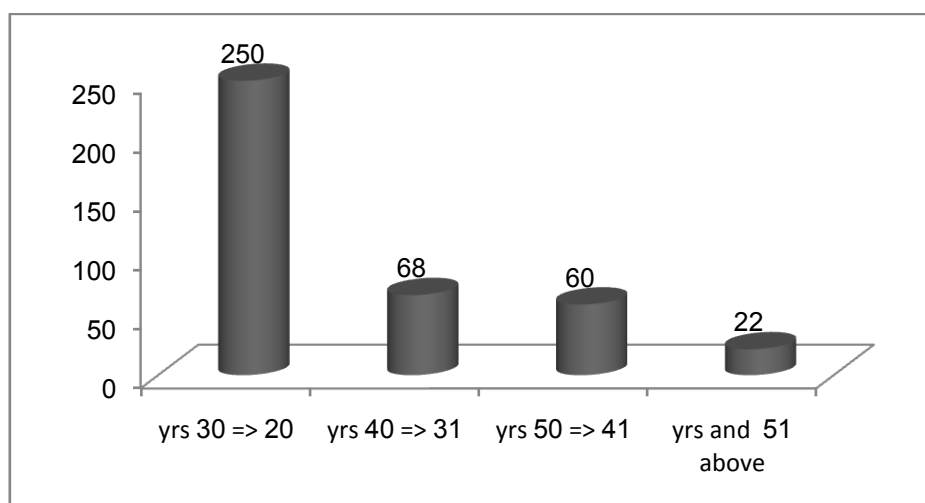
Table (12) Distribution of participants according to working experience variable

		Frequency	Percent
	0 <= 10 yrs	275	68.8
	11 <= 20 yrs	59	14.8
	21 <= 30 yrs	50	12.5
	31 yrs and above	16	4.0
Total		400	100.0

The above Table showed that (275) of the participants have working experience in the range (0 <= 10 yrs) with percentage (68.8%), (59) of the participants have working experience in the range (11 <= 20 yrs) with percentage (14.8%), (50) of the participants have working experience in the range (21 <= 30 yrs) with percentage (12.5%), while (16) of the participants have working experience equals to 31 yrs and above with percentage (4%).
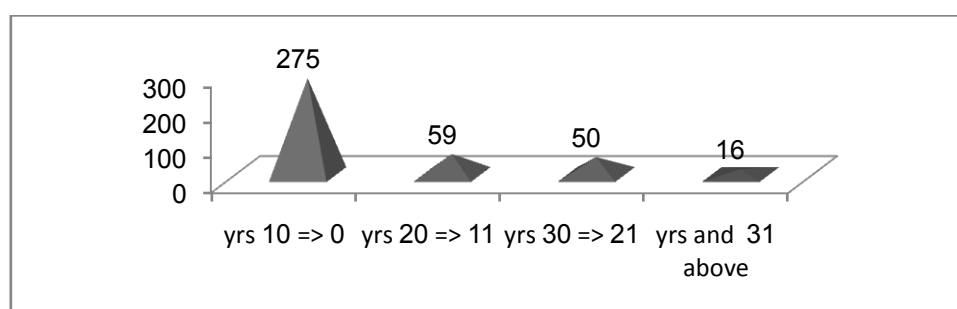
Question one: Do the health care practitioners in the hospitals encourage to do the adverse events?**:**
To know if the practitioners are encouraged to do the adverse events in the hospital, the frequencies, percentages, Means, Stander Deviation and ranks for sample on the axe are calculated as in the following table:

Table (13): the responses of the participants on the statements of the: if the practitioners are encouraged to do the adverse events in the hospital ranked descendingly based on Means:

Q	Statement	F %	Approval					Mean	Std. Dev.
			S. disagree	Disagree	Neutral	Agree	S. Agree		
1	I am encouraged by my supervisor to participate in reporting incidents	F	0	22	2	288	87	4.10	0.658
		%	0	5.5	0.5	72.2	21.8		
2	I report incidents I was involved in	F	17	39	17	232	94	3.86	1.01
		%	4.3	9.8	4.3	58	23.5		
3	I report incidents occurred with my colleagues	F	4	57	48	200	89	3.78	0.982
		%	1.0	14.2	12	50	22.3		
4	I am encouraged by hospital management to participate in incident reporting	F	29	22	77	170	102	3.73	1.11
		%	7.2	5.5	19.3	42.5	25.5		
5	I report incident regularly	F	31	73	16	169	110	3.363	1.27
		%	7.8	18.3	4	42.3	27.5		

The above table showed that the respondents of the sample of study are agreed on the: if the practitioners are encouraged to do the adverse events in the hospital with Mean equal to (3.82out of 5.00), this Mean came in the fourth category of Fifth Scale (3.41-4.20) which indicated to agree option for the tool of the study.

The results showed there is similarity in opinions of the respondents on if the practitioners are encouraged to do the adverse events in the hospitaland come in range (3.63-4.10) these Means come in the fourth category of the fifth scale and indicate to (Agree).

Also the results showed that the respondents have agreed on five statements of the if the practitioners are encouraged to do the adverse events in the hospital which are ranked descendingly as follow:

1. Statement (2) " I am encouraged by my supervisor to participate in reporting incidents " came at the first rank in terms of approval of the respondents with Mean (4.10 out of 5.00).
2. Statement (17) " I report incidents I was involved in" came at the second rank in terms of approval of the respondents with Mean (3.86 out of 5.00)

3. Statement (18) " I report incidents occurred with my colleagues " came at the third rank in terms of approval of the respondents with Mean (3.78 out of 5.00).
4. Statement (3) " I am encouraged by hospital management to participate in incident reporting " came at the forth rank in terms of approval of the respondents with Mean (3.73 out of 5.00)
5. Statement (16) " I report incident regularly " came at the fifth rank in terms of approval of the respondents with Mean (3.63 out of 5.00)

Question two: do the health care practitioners obtain the feedback after done incidence report:
To know if the health care practitioners obtain the feedback after done incidence report, the frequencies, percentages, Means, Stander Deviation and ranks for sample on the axe are calculated as in the following table:

Table (14): The responses of the participants on the statements of the health care practitioners obtain the feedback after done incidence report are ranked descendingly based on approval Means:

Q	Statement	F					Approval	Mean	Std. Dev.
		%	S. disagree	Disagree	Neutral	Agree	S. Agree		
1	incidence report are discussed in mortality/ morbidity reviews	F	49	81	41	121	108	3.39	1.387
		%	12.3	20.3	10.3	30.3	27		
2	I receive feedback on the reports that I make	F	80	36	62	145	75	3.24	1.396
		%	20	9	15.5	36.3	18.8		

The above table showed that the respondents of the sample of study are neutral on the health care practitioners obtains the feedback after done incidence report with Mean equal to (3.31out of 5.00), this Mean came in the third category of Fifth Scale (2.61-3.40) which indicated to neutral option for the tool of the study.

The results showed there is similarity in opinions of the respondents on health care practitioners obtain the feedback after done incidence reportand come in range (3.24-3.39) these Means come in the third category of the fifth scale and indicate to (neutral).

Also the results showed that the respondents have neutralized on the both two statements of health care practitioners obtain the feedback after done incidence report which are ranked descendingly as follow:

1. Statement (8) " incidence report are discussed in mortality/ morbidity reviews " came at the first rank in terms of approval of the respondents with Mean (3.39 out of 5.00).
2. Statement (19) " I receive feedback on the reports that I make" came at the second rank in terms of approval of the respondents with Mean (3.24 out of 5.00)

Question one: do they get training after doing incidence report:
To know if the practitioners are getting training after incidence report, the frequencies, percentages, Means, Stander Deviation and ranks for sample on the axe are calculated as in the following table:

Table (15): the responses of the participants on the statements of the: if the practitioners are getting training course after doing incidence report ranked descendingly based on Means:

Q	Statement	F	Approval					Mean	Std. Dev.
		%	S. disagree	Disagree	Neutral	Agree	S. Agree		
1	I received training aimed to prevent adverse events in general	F	17	68	2	203	109	3.79	1.14
		%	4.3	17	0.5	50.7	27.3		
2	I received training on identification	F	33	65	43	158	98	3.56	1.25
		%	8.3	16.3	10.8	39.5	24.5		
3	Quality of training is adequate	F	31	52	40	198	62	3.54	1.15
		%	7.8	13	10	49.5	15.5		
4	Length time of training is adequate	F	29	80	39	160	91	3.51	1.24
		%	7.2	20	9.8	40	22.8		
5	Training I receive is effective in preventing future incidents	F	14	98	36	176	75	3.50	1.15
		%	3.5	24.5	9	44	18.8		
6	Qualification of trainers is adequate	F	45	50	71	156	62	3.36	**1.23**
		%	11.3	12.5	17.8	39	15.5		

The above table showed that the respondents of the sample of study are agreed on the: practitioners are getting training after incidence report with Mean equal to (3.54out of 5.00), this Mean came in the forth category of Fifth Scale (3.41-4.20) which indicated to agree option for the tool of the study.

The results showed there are differences in opinions of the participants on the practitioners are getting training after incidence reportand came in range (3.36-3.79) these Means come in the fourth and third category of the fifth scale and indicate to (Neutral /Agree) respectively.

Also the results showed that the respondents have agreed on five statements of the practitioners are getting training after incidence reportwhich is ranked descendingly as follow:

1. Statement (5) "I received training aimed to prevent adverse events in general" came at the first rank in terms of approval of the respondents with Mean (3.79 out of 5.00).
2. Statement (6) " I received training on identification " came at the second rank in terms of approval of the respondents with Mean (3.56 out of 5.00)
3. Statement (10) " Quality of training is adequate " came at the third rank in terms of approval of the respondents with Mean (3.54 out of 5.00)
4. Statement (9) " Length time of training is adequate " came at the forth rank in terms of approval of the respondents with Mean (3.51 out of 5.00)
5. Statement (12) " Training I receive is effective in preventing future incidents " came at the fifth rank in terms of approval of the respondents with Mean (3.50 out of 5.00).

Also the results showed that the respondents have neutral on the statement (11) " Qualification of trainers is adequate " came at the sixth rank in terms of approval of the respondents with Mean (3.36 out of 5).

Question four: do the incidence reporting system effective in the two hospitals?
To know if the incidence reporting system effective in the two hospitals, the frequencies, percentages, Means, Stander Deviation and ranks for sample on the axe are calculated as in the following table:

Table (16): the responses of the participants on the statements of the: if the incidence reporting system effective in the two hospitals ranked descendingly based on Means:

Q	Statement	F	S. disagree	Disagree	Neutral	Agree	S. Agree	Mean	Std. Dev.
		%					**Approval**		
1	Hospital policies, procedures and guidelines are reviewed to prevent future incidents	F	15	36	48	159	142	3.94	1.08
		%	3.8	9.0	12	39.8	35.5		
2	The incident reporting system in my hospital is well designed	F	3	22	94	194	87	3.85	0.848
		%	0.8	5.5	23.5	48.5	21.8		
3	infection control policies are reviewed frequently to prevent incidents	F	30	3	50	235	82	3.84	1.00
		%	7.5	8	12.5	58.8	20.5		
4	Overall hospital IR system is effective in the identification and control of incidents	F	33	45	68	172	82	3.56	1.17
		%	8.3	11.3	17	43	20.5		
5	Incidence reporting system in my hospital is effective in preventing potential future incidents	F	34	78	31	185	72	3.45	1.22
		%	8.5	19.5	7.8	46.3	18		
6	Overall hospital IR system is effective in the identification and control of incidents	F	46	49	119	109	74	3.29	**1.23**
		%	11.5	12.3	29.8	27.3	18.5		

The above table showed that the participants of the sample of study are agreed on the effect of the incidence reporting system effective in the two hospitals with Mean equal to (3.66 out of 5.00), this Mean came in the forth category of Fifth Scale (3.41-4.20) which indicated to agree option for the tool of the study.

The results showed there is differences in opinions of the participants on the effect of the incidence reporting system effective in the two hospitalsand come in range (3.29-3.94) these Means come in the forth and third category of the fifth scale and indicate to (neutral /Agree) respectively.

Also the results showed that the participants have agreed on five statements of the effect of the incidence reporting system effective in the two hospitalswhich is ranked descendingly as follow:

1. Statement (13) " Hospital policies, procedures and guidelines are reviewed to prevent future incidents " came at the first rank in terms of approval of the respondents with Mean (3.94 out of 5.00).
2. Statement (1) " The incident reporting system in my hospital is well designed " came at the second rank in terms of approval of the respondents with Mean (3.85 out of 5.00)

3. Statement (15) " infection control policies are reviewed frequently to prevent incidents " came at the third rank in terms of approval of the respondents with Mean (3.84 out of 5.00)
4. Statement (21) " Overall hospital IR system is effective in the identification and control of incidents " came at the forth rank in terms of approval of the respondents with Mean (3.56 out of 5.00)
5. Statement (4) " Incidence reporting system in my hospital is effective in preventing potential future incidents " came at the fifth rank in terms of approval of the respondents with Mean (3.45 out of 5.00).

Also the results showed that the respondents have neutral on the statement (20) " Overall hospital IR system is effective in the identification and control of incidents " came at the sixth rank in terms of approval of the respondents with Mean (3.29 out of 5).

Table(17):T-test :Group Statistics

	type	N	Mean	Std. Deviation	Std. Error Mean
encourage	1	222	3.7685	.74268	.04985
	2	178	3.8989	.79922	.05990
feedback	1	222	3.1081	1.23286	.08274
	2	178	3.5927	1.20315	.09018
training	1	222	3.3326	1.07411	.07209
	2	178	3.8333	.84780	.06355
effective	1	222	3.6989	.82253	.05520
	2	178	3.9045	.84850	.06360

1:   central hospital   2: king Fahd hospital

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
encourage	Equal variances assumed	2.001	.158	-1.687	398	.092	-.13041	.07730	-.28238	.02157
	Equal variances not assumed			-1.673	366.310	.095	-.13041	.07793	-.28365	.02284
feedback	Equal variances assumed	4.384	.037	-3.949	398	.000	-.48459	.12272	-.72585	-.24333
	Equal variances not assumed			-3.959	383.042	.000	-.48459	.12239	-.72523	-.24395
training	Equal variances assumed	17.083	.000	-5.079	398	.000	-.50075	.09859	-.69458	-.30692
	Equal variances not assumed			-5.211	397.910	.000	-.50075	.09610	-.68968	-.31183
effective	Equal variances assumed	.329	.567	-2.449	398	.015	-.20555	.08393	-.37054	-.04055
	Equal variances not assumed			-2.441	374.111	.015	-.20555	.08422	-.37114	-.03995

- We can see from above table that there was a significant difference between the two hospitals: Central Hospital and king Fahd Hospital in three aspects :Feedback , Training and Effectiveness. king Fahd Hospital better in feedback with overall μ =**3.5927** compared to Central Hospital μ =**3.1081,**this(differences was significance) at the level **0.05**
- king Fahd Hospital was better in training with the overall μ =**3.8333** in compared to Central Hospital μ =**3.3326** (Difference is significance)at the level **0.05**
- king Fahd Hospital was better in effectiveness of the system with the overall μ =**3.9045** in compare Central Hospital μ =**3.6989** (Difference is significance)at the level **0.05**
- There was no significance differences in encourage at the level of **0.05**

IV.   Discussion
Questions one:
1. Participants of study are agreed on the: if the practitioners are encouraged to do the adverse events in the hospital with Mean equal to (3.82out of 5.00).
2. there is similarity in opinions of the respondents on if the practitioners are encouraged to do the adverse events in the hospital
3. the respondents have agreed on five statements of the if the practitioners are encouraged to do the adverse events in the hospital which are ranked dissentingly as follow:
6. Statement (2) " I am encouraged by my supervisor to participate in reporting incidents "
7. Statement (17) " I report incidents I was involved in"

8. Statement (18) " I report incidents occurred with my colleagues .
9. Statement (3) " I am encouraged by hospital management to participate in incident reporting .
10. Statement (16) " I report incident regularly " .

Kodate(2013) conclude that the incident reporting can be a strong tool for developing and maintaining an awareness of risks in health care practices. Also Kathryn(2010) reported that the system safety reviews that are requested by senior administration following severe adverse events.

Question two:
1. the respondents of the sample of study are neutral on the health care practitioners obtains the feedback after done incidence report.
2. there is similarity in opinions of the respondents on health care practitioners obtain the feedback after done incidence report.
3. Also the results showed that the respondents have neutralized on the both two statements of health care practitioners obtain the feedback after done incidence report which are ranked descendingly as follow:
4. Statement (8) " incidence report are discussed in mortality/ morbidity reviews ".
5. Statement (19) " I receive feedback on the reports that I make"

Question three:
1. respondents of the sample of study are agreed on the: practitioners are getting training after incidence report.
2. There are differences in opinions of the participants on the practitioners are getting training after incidence report.
3. the participants have agreed on five statements of the practitioners are getting training after incidence reportwhich is ranked descendingly as follow:
• Statement (5) "I received training aimed to prevent adverse events in general".
• Statement (6) " I received training on identification "
• Statement (10) " Quality of training is adequate "
• Length time of training is adequate
• Statement (12) " Training I receive is effective in preventing future incidents ".
4. Also the results showed that the respondents have neutral on the statement (11) " Qualification of trainers is adequate " came at the sixth rank in terms of approval of the respondents with Mean (3.36 out of 5).

the feedback and the training form the administration following the reporting an adverse events also reported in the others studies, Baruch(2014) emphasis on the importance of feedback on the reporting of an adverse events, Duffy(2013) support the open disclosure policy following the an adverse events, Masroos(2013) reported that most of radiologist in his study receiving an information about their errors through multiple sources like morbidity and mortality meetings, Mahajan (2010) reported that the feedback should consolidate with the results of the analysis of the active and the latent factors.

Question four
1. that the participants of the sample of study are agreed on the effect of the incidence reporting system effective in the two hospitals.
2. there is differences in opinions of the participants on the effect of the incidence reporting system effective in the two hospitals
3. the participants have agreed on five statements of the effect of the incidence reporting system effective in the two hospitalswhich is ranked descendingly as follow:
• Statement (13) " Hospital policies, procedures and guidelines are reviewed to prevent future incidents ".
• Statement (1) " The incident reporting system in my hospital is well designed "
• Statement (15) " infection control policies are reviewed frequently to prevent incidents "
• Statement (21) " Overall hospital IR system is effective in the identification and control of incidents "
• Statement (4) " Incidence reporting system in my hospital is effective in preventing potential future incidents ".
• the participants have neutral on the statement (20) " Overall hospital IR system is effective in the identification and control of incidents.

Duffy(2013) examine the avialbility of the procedures and the guideline in the system of reporting to become an effective, Chuang(2010) support the relationship between patients safety and the learning from the safety events reporting, Mahajan(2010) also reported that the learning from incident reporting will improve patient safety, Kodate(2013) result in that the practitioners perceive that the incident reporting having a positive effect on the safety.

Association between the types of the hospitals and variables:

In which the king Fahd hospital is better in feedback with the overall µ =3.5927 in compare central hospital µ =3.1081 with the sig=.000 <.05.

In which also the king Fahd hospital is better in training with the overall µ =3.8333
in compare central hospital µ =3.3326 with the sig=.000 <.05.

In which also the king Fahd hospital is better in effective of system with the overall µ =3.9045 in compare central hospital µ =3.6989 with the sig=.000 <.05.

V.   Recommendation

1. We must apply a variety of feedback mechanisms which include safety committee processes, publications, electronic dissemination, staff bulletins, manuals, conferences.
2. more work is required to gather conclusive evidence that such measures have an impact on the level and quality of reporting, existing safety culture, and ultimately patient safety.
3. Despite the known and well-advertised strengths of the incident reporting systems, under-reporting, in particular, by doctors, remains a significant problem. It is possible that incidents are just not recognized, or are not simply documented properly so we must improve the system of reporting to identify and control incidents.
4. We must study the causes that act as barriers to incident reporting.
5. We must study the causes of differences between the hospitals regarding the reporting of incidents report(obtaining feedback, training and the effective system of reporting).

VI.   Conclusion

It is of utmost importance to develop a culture of learning from mistakes by conducting error meetings and improving the process of recording and addressing errors to enhance patient safety.

Learning from errors is essential to enhance the performance yet many practitioners and organizations are oblivious to its importance.

Adverse events: Abnormal, harmful, or undesirable effect on an organism that causes anatomical or functionaldamage, irreversible physical changes, or increases the susceptibility to other biological, chemical, or environmental stresses. Adverse effects are indicated usually by results such as altered foodconsumption, altered enzyme levels, changes in body/organ weights, other pathological changes, and higher mortality rates.

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