## RESEARCH ARTICLE

## EFFECTIVENESS OF STRUCTURED GUIDELINES REGARDING MANAGEMENT OF MEDICO-LEGAL CASES ON THE KNOWLEDGE OF NURSING PERSONNEL

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**Manuscript Info**

**Abstract**

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**Background:**Medico-legal amenities have reached across the world. The purpose of medico-legal services is to provide better care to victims and to collectmedico-legal evidence.[1] It has been a challenge for nurses to take liability with judicial system to magnify the means applicable for patients with obligation related injuries, crime casualty and somebody suspicious under police custody.[2]This signifies advanced aspects in view of comprehensive approach to accountability matters involving patient care in the emergency care setting.

**Aim**: To determine the Effectiveness of structured guidelines on the knowledgeof nursing personnel regarding management of medico-legal cases.

**Material and Method:**Quasi Experimental one group pretest posttest design with Quantitative approach was adopted. Total 34 nursing personnelwere selected through total Enumerative sampling. Information was gathered from 34 nursing personnel by means of structured knowledge questionnaire.

**Result:**Outcomes reveals that Mean posttest knowledge score was significantly higher $18.02 \pm 1.02$ than that of mean pretest knowledge score $14.2 \pm 2.20$ with calculated 't' value 9.44.

**Conclusion:**Results of the study conclude that in-service education program was effective in boosting the knowledge of nursing personnel on management of medico-legal cases.

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## Introduction:-
Medico-legal is an application of natural sciences to legal context; it is pertaining to both medicine and law or to forensic medicine. Medico-legal includes Forensic Science,Toxicology, DNA fingerprinting and Environmental risks.[3]

In medical practice, Medico-legal cases (MLC) are fundamental which are frequently encountered by Medical officers (MO). MLCs are increasing both in the civil as well as in the Armed forces. It is vital to do proper handling and documentation of these cases so that the legal complications can be avoided and the entitled benefits can be received by Next of Kin (NOK).[3]

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The nurse practitioners must furnish themselves with requisite information to be paced with the changing needs and situations.This information may include management in hospital as well as in community health centers in treatment and follow up care, organ donation and transplantation, Intrauterine insemination, euthanasia, amniocentesis.[4]

The investigator's own experience in clinical area has many such situations in store; where nursing care decision in medico-legal cases in emergency unit itself was difficult because of the absence of guidelines on management of medico-legal cases.Hence a need for clear written guidelines defining the medico-legal situation is strongly felt by investigator.

**Purpose:**
To improve the knowledge of nursing personnel regarding management of medico-legal cases

**Rationale:**
Developing the written guidelines regarding medico-legal cases is an important part of systematic efforts to increase knowledge of staff nurses, so that MLC's can be managed effectively.

## Objectives:-
1. To assess the knowledge of nursing personnel regarding management of medico-legal cases
2. To assess the effectiveness of structured guidelines on the knowledge of nursing personnel regarding management of medico-legal cases
3. To find association between pre-test knowledge score of nursing personnel with selected demographic variables
4. To find correlation between pre-test knowledge score of nursing personnel with selected demographic variables

## Materials and Methods:-
Quantitative research approach with Quasi Experimental one group pretest posttest designwas adopted in the present study.Total 34 nursing personnelwere selected through total Enumerative sampling technique from emergency unit of Himalayan Institute Hospital Trust, Jolly grant, Dehradun, Uttarakhand. Written permission was obtained from ethical committee, HIHT and Administrative permission from Medical Superintendent, Nursing Superintendent of Himalayan Hospital. Written consent was taken from nursing personnel individually.The knowledge questionnaire was given to assess their pretest knowledge regarding management of MLCs.

On the 8th and 9th day an in-service education programme was conducted to introduce the structured guidelines on management of medico-legal cases to nursing personnel working in emergency unit all together in three sessions. A handout containing structured guidelines on management of medico-legal cases was given to nursing personnel for easy accessibility. On the 10th day of in-service education programme, structured questionnaire was administered to assess posttest knowledge score.

## Result:-
**Table1:-** Frequency and percentage distribution of socio-demographicvariablesof nursing personnel (N= 34).

| Variables | Frequency (f) | Percentage (%) |
|---|---|---|
| **Age (years)** | | |
| •      18- 25 | 13 | 38 |
| •      26-33 | 15 | 44 |
| •      Above 33 | 06 | 18 |
| **Gender** | | |
| •      Male | 16 | 47 |
| •      Female | 18 | 53 |
| **Professional qualification** | | |
| •      GNM | 29 | 85 |
| •      B.Sc (N) | 05 | 15 |
| **Duration of clinical experience in nursing ( years)** | | |
| •      0-5 | | |
| •      6-10 | 15 | 44 |
| | 12 | 35 |

| | | |
|---|---|---|
| •         Above 10 | 07 | 21 |
| **Duration of clinical experience in emergency unit (Years)** | | |
| •         0-3 | 23 | 68 |
| •         4-7 | 10 | 29 |
| •         Above 7 | 01 | 03 |

Table no.1 depicts that less than half (44%) of nursing personnel were aged between 26 to 33 years, about more than half (53%) of participants were females, most of (85%) were with GNM qualification, about (44%) of nursing personnel duration of clinical experience in nursing was between 0 to 5 years and majority (68%) had clinical experience in emergency unit between 0 to 3 years.

**Table 2:-** Comparison of mean pretest and posttest knowledge score of nursing personnel regarding management of medico-legal cases (N=34).

| Knowledge Scores | Range scores | Mean ± SD | Mean difference | Standard error | 't' value | p value |
|---|---|---|---|---|---|---|
| **Pre-test** | 7-18 | 14.2±2.20 | 3.82±1.18 | .399 | **9.44*** | <0.001 |
| **Post-test** | 16-20 | 18.02 ± 1.02 | | | | |

Maximum Score: 20        't'= 1.69 at df=33 at the level of p<0.05
Minimum Score: 0                                      * significant

Table no.2 reveals that the mean post-test knowledge score (18.02 ± 1.02) ofnursing personalwas significantly greater than that of the mean pre-test knowledge score (14.2 ± 2.20) with calculated't' value 9.44.
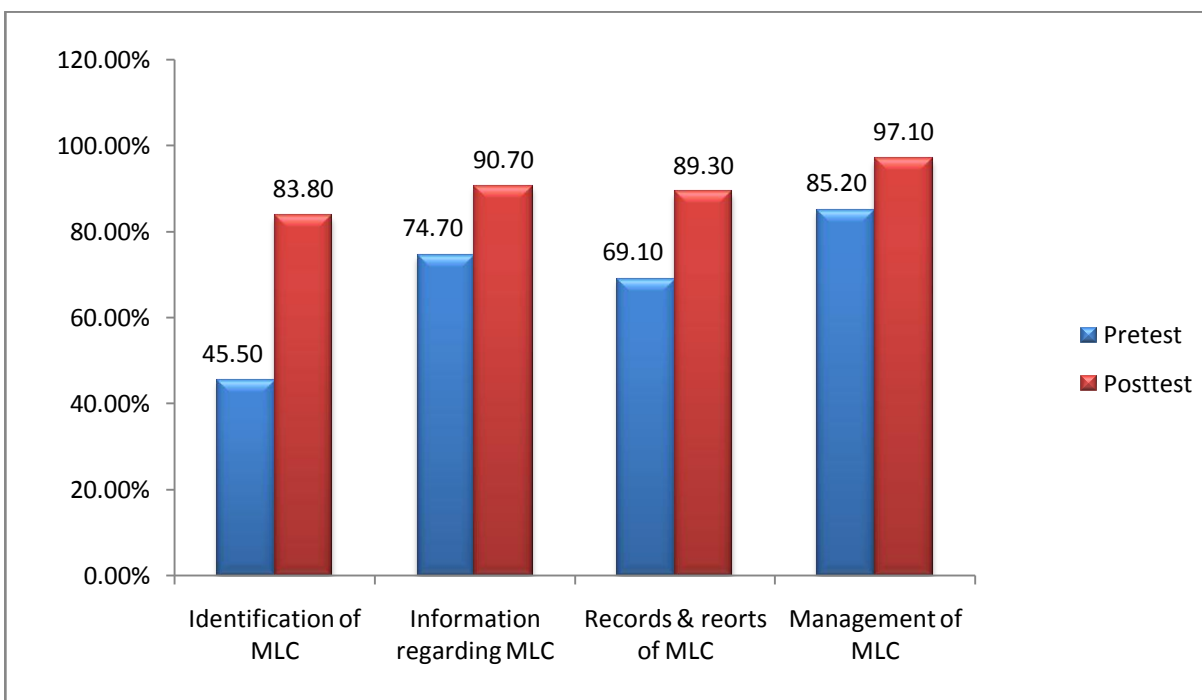


**Figure 1:-** Domain wise mean percentage of pretest and posttest knowledge scores of nursing personnelregarding management of medico-legal cases.     (N=34)

The data presented in Figure No.1depicts that the mean post test knowledge score of all domainsrelated to management of medicolegal caseswas apparently greater than that of their respective mean pre-test knowledge score. The mean percentage of knowledge score of pretest ranged between 46% to 85%, and in post-test scores, it varied between 84% to 97%. The domain with highest gain was in management of medicolegal cases (97 %).

Hence it could be inferred that the structured guidelines on management of medico-legal cases improved the knowledge of nursing personnel regarding all four domains.

**Table 3:-** Association of Pretest Knowledge score with Gender of nursing personnel(N=34).

| Gender | Mean ± SD | Mean Difference± SD | 't' value | p value |
|--------|-----------|---------------------|-----------|---------|
| Male | 15.1±1.98 | | | |
| Female | 13.5±2.14 | 1.6± 0.16 | 2.25* | <0.001 |

Independent Sample 't'-test, t=1.69 at df=32 at the level of p<0.05* Significant
Table no.3showsthat the pretest mean of knowledge score (15.1±1.98) of males was higher than that of the of females with(13.5±2.14) calculated' value 2.25, which was significantat p<0.05.

**Table 4:-** Correlation of age, duration of clinical experience and duration of experience in emergency unit with knowledge score                         (N=34).

| S.NO | Socio-Demographic Variables | Mean ± SD | Pre-test Mean ± SD | Correlation (r) | p value |
|------|------------------------------|-----------|--------------------|-----------------|---------|
| 1. | Age (in years) | 29.5±6.2 | | -0.173 | 0.329 |
| 2. | Duration of clinical experience in nursing practice (in years) | 77.8±61.2 | | 0.005 | 0.976 |
| 3. | Duration of experience in emergency unit (in years) | 29.8± 29.8 | 14.2± 1.02 | 0.417* | 0.014 |

Karl-Pearson's correlation coefficient 'r',r= 0.34 at df=32 at the level of P < 0.05
* Significant

Table No.4 reveals that only duration of experience in emergency unit was having statistical significant correlation with the pre-test knowledge score (r= 0.417; p=0.014). Hence,it could be inferred that more the experience of nursing personnel in emergency unit better the knowledge regarding management of medicolegal cases.

## Discussion:-
Outcomes of the present study showedthat about 44% of nursing personnel were aged between 26 and 33 years, the mean age was 29.5, most (53%) of themwere females. Regarding professional qualification (85%) were GNM, (44%) had clinical experience between 0 to 5 years and (68%) of nursing personnel had clinical experience in emergency unit between 0 to 3 years.The findings were consistent with a descriptive study conducted by Hyde E C,(2006)regarding the knowledge of critical care nurses on liability problems at critical care setting. The results showed that (43.86%) of nurses had critical care nursing experience, (37.43%) had a diploma in nursing, (28.65%) had less than 2years experience in critical care unit and majority (86.31%) were permanent employed.[5]

Present study reveals that Mean posttest knowledge score was significantlygreater(18.02 ± 1.02) than pretest with calculated t' value 9.44 at p<0.05 level. Outcomes were supported by research conducted by Ghosh.S.(2013) on knowledge regarding legal and ethical issues in care of children among nurses working in pediatric unit. The results presented that the mean post-test knowledge was significantly more than the mean pre-test knowledge score, with calculated 't' value 13.031.[7]

### Implication:
The present study emphasized on increasing knowledge of nursing personnel concerning management of MLCs in emergency unit.The nursing personnel can use their knowledge in maintaining legal records and reports which are essential for nursing practice and also Nurse Administrator can use the guidelines prepared by investigator for Inservice education of nurses and handling medicolegal casesin areas of nursing care such as administration of chemotherapy, nursing care of unconscious patients etc.

### Strength:
Guidelines developed by researcher was useful for emergency setting

### Limitation:
1.   Generalization of the study findings may be limited due to selection of single hospital and small sample size

2. The study was limited to MLCs brought in selected hospital only
3. The study was limited to nursing personnel working in emergency unit
4. The study was limited to nursing care provided by nursing personnel to MLCs pertaining to legal aspects only

## Conclusion:-

The outcomes of the present studysuggested that the knowledge of nursing personnel related to management of medico-legal cases had been significantly higher in post test.The significant enhancement in knowledge score can be achnowledged to structured guidelines on management of medico-legal cases for nursing personnel.

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