
**Develop and assess the efficacy of protocol on pressure ulcer prevention among bed ridden patients:
A quasi experimental Study****Jayshree Chauhan¹, Harshita Parmar²**

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ABSTRACT : Pressure ulcer is serious health problem that leads to pain, longer hospital stay and slow recovery from illness. The aim of the study was to develop and validate the protocol on prevention of pressure ulcer, assess the efficacy of protocol. The study was conducted by using quasi experimental research design. 20 bedridden patients had been selected by using non-randomized purposive sampling technique. The samples were divided in two group- experimental and control. Braden scale was utilized for predicting pressure ulcer risk and assessment of socio demographic variables has been done. Data were analysed by using excel and SPSS software in two sections that are descriptive statistics and inferential statistics. Study revealed that pre-test pressure ulcer score was high according to Braden scale for both experimental and control group. After implementation of pressure ulcer prevention protocol incidence of pressure ulcer was subsequently reduced in experimental group then control group. This shows efficacy of pressure ulcer prevention protocol. The purpose of study was to determine effect of protocol on pressure ulcer prevention. Research findings had drawn inference that, if hospital staff is administering proper guideline related to pressure ulcer prevention protocol than avoidance of pressure ulcer can be done by primitive stage.

Key words: Develop, Assess, Pressure ulcer, Prevention, Protocol, Bedridden patients

INTRODUCTION

A pressure ulcer is a localized injury to the skin or underlying tissue, usually over a bony prominence, as a result of unrelieved pressure.¹

In India incidence rate in inpatient department were reported as low as 0.4% to as high as 38% while prevalence were reported in the range of 3.5% to 69% and in hospitalized patients prevalence was reported 4.94%.² Risk factor for pressure ulcers are expanded pressure on tissues, compromised mobility, loss of protecting reflexes sensory deficit, poor skin perfusion or edema, hypo proteinemia, anemia, vitamin deficiency trauma incontinence of urine or feces, advanced age due some equipment

like cast traction and restrains.³

METHOD AND MATERIALS

The study design was quasi experimental research with pre-test post-test control group design. Population of the study was bedridden patients admitted in a tertiary care center; sample for the study was 20 bedridden patients selected by using Purposive sampling technique and divided in experimental and control group. Pressure ulcer prevention protocol was used as an intervention in experimental group, whereas in control group patients received routine measures to prevent ulcer. Bedridden patients admitted in Dhiraj hospital >4 days were inclusion criteria for selecting sample. Patient is mobile and those patients already developed pressure ulcer were excluded from the study. Data collection was done by using Braden scale for predicting risk of pressure ulcer.

Pre-test was conducted in experimental and control group among bedridden patients by using Braden scale for predicting pressure ulcer risk. After assessing risk for pressure ulcer, implementation of care has been delivered to patients of experimental group as per the guidelines of self prepared protocol on pressure ulcer prevention for. Participants of control group had not received any intervention. The implementation of protocol in experimental group was carried out for 20 days. Post-test has been conducted for both groups. Data analyzed using excel and SPSS-22 software. Descriptive statistics (mean, paired t test and chi square) and inferential statistics were used.

Results: A total 20 bedridden patients were included in study of final analysis. In which majority of participants from age group of >40 years (60%), maximum participants 60% were male. BMI of majority of participants of (60%) were overweight. Majority of patients were 5-10days (85%) in length of hospital stay. In diagnosis according to system in majority of patients from nervous system (80%). The pressure ulcer was categorized as very high risk (40%), high risk (50%) and moderate risk (10%) in experimental group, whereas very high risk (30%) and high risk (70%) in control group. After the administration of pressure ulcer prevention protocol in experimental group the risk of developing pressure ulcer had been decrease by 30%, 50% and 20% in each category while control group was excluded from intervention therefore no changes had been seen in patient's condition which is 30%, 60% and 10% as per the category. Paired "t" test result was (3.87) >1.72 at 0.05 significant level in experimental group. This indicates, protocol for pressure ulcer prevention was effective in bedridden patients to prevent pressure ulcer.

Distribution of mean percentage and "t" value of posttest effectiveness score in experimental and control group.

N=20

Posttest (Protocol effectiveness score)	Mean	Mean%	Mean difference	"t" value	Significance
Experimental group		67%	2.9	3.87	3.87>1.72 S
control group		5%			

* 0.05 significant level

Table 1: Distribution of mean percentage and “t” value of post-test effectiveness score in experimental and control group.

Above table depicts that Protocol on pressure ulcer prevention is effective in experimental group. Therefore H_1 is accepted.

Association between efficacy of protocol on pressure ulcer prevention and selected socio demographic variables shown nil significance. Hence H_2 is fail to accept.

DISCUSSION

Plan of the study was assess the efficacy of protocol on pressure ulcer prevention among bedridden patients. This study has its findings in line with other studies; study conducted by Kwong, on Study protocol of a cluster randomized controlled trial for evaluating the efficacy of an inclusive pressure ulcer prevention programmer for private for-profit nursing homes. The programmer will potentially improve the knowledge and skills of staff on the prevention of pressure ulcers and also lead to a decrease in the development of pressure ulcers.⁴ Another helpful study is conducted by Rogenski on the incidence of pressure ulcer after the implementation of prevention protocol.” the prevention protocol is important tools for reduced the incidence of pressure ulcer.⁵ Sardo PM conducted retrospective study cohort study on pressure ulcer incidence and Braden subscale. Braden scale is managing pressure ulcer on mobility and activity.⁶ Systematic review protocol on effectiveness of pressure ulcer prevention in ICU. Pressure ulcer strategies design to manage the risk factors for pressure ulcer development.⁷ Systematic review for evaluating the efficacy of Braden scale for mobility assessment so Braden scale is reliable risk assessment scale for identifying patients risk in current study Protocol on pressure ulcer prevention was efficacy in bedridden patients. Result of the present study indicates that there was no association between effectiveness of protocol on pressure ulcer prevention and selected socio demographic variables.

CONCLUSION

Development of Decubitus ulcer is very common in the patients who are completely bedridden. It is necessary to follow preventing measures like the pressure ulcer prevention protocol and guideline to reduce the complication regarding pressure ulcer. Adherence of Health Care Personnel regarding pressure ulcer prevention strategies is required to minimize deterioration in condition of patient.

Sources of funding

For the present research study researcher’s own fund had been utilized.

Conflict of interest

Author declared that no conflict of interest disclosed.

Ethical consideration

Ethical clearance was obtained by institutional ethical committee, permission for data collection was taken from hospital authority and participant’s information consent was taken before the process of data collection.

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