PAIN AND FUNCTIONAL INDEPENDENCE: IMPACT IN ROAD TRAFFIC ACCIDENTS.

Amardeep Kaur¹, Simran Bhatti¹, Sandeep Kumar² and Smati Sambyal².

1. BPT – IV year students, University College of Physiotherapy, Faridkot.
2. Lecturer, University College of Physiotherapy.

Manuscript Info

Abstract

Introduction: The problem of road traffic accidents is increasingly becoming a threat to public health and national development in many developing countries. Road traffic accidents contribute to poverty by causing deaths, injuries, disabilities, grief, loss of productivity and material damages. Objective: To investigate the relationship between pain and functional independence in patients injured in road traffic accidents. Method: 30 road side accidental patients both males and females, aged 18-50 years were assessed for pain and functional independence by Visual Analogue Scale and Barthel Index Score respectively. Results: After statistical analysis, it was found that there was a statistically significant correlation between the pain and functional independence. The r value is -0.791 which indicates significant correlation. Conclusion: There is significant inverse correlation between pain and functional independence in patients in road traffic accidents. Hence it has been concluded that with the increase in the pain the functional independency decreases. So, for the better prognosis treatment of the pain should be considered.

Introduction:-
Road traffic accidents which are generally unintended and preventable are a common risk in every day to day life that can happen to anyone, anywhere. Road traffic accidents are the most frequent cause of injury-related deaths worldwide.¹ The problem of road traffic accidents is increasingly becoming a threat to public health and national development in many developing countries. Road traffic accidents contribute to poverty by causing deaths, injuries, disabilities, grief, lost of productivity and material damages. Road traffic injuries are the only public problem where society and decision makers still accept death and disability on large scale among young people. Indian roads, which account for highest fatalities in the world, became yet more dangerous in 2015 with the number of deaths rising nearly 5% to 1.46 lakh. This translates to 400 deaths a day.²

Optimal care of severely injured patients requires a coordinated approach from the point of injury, through a hospital faculty organized to cope with the demands of looking after multisystem problems, to a rehabilitation structure that can return the patient to his or her maximum potential level of function within society. The victims of road traffic accidents have to pay heavy price for their health. The most common thing the patients of road traffic accidents complain is pain. These victims also start depending on others to carry out their day to day. So, this study was planned to investigate the relationship between pain and functional independence in patients with road side accidents.

Corresponding Author:- Amardeep Kaur.
Address:- BPT – IV year students, University College of Physiotherapy, Faridkot.
Methodology:
30 roadside accidental patients were taken from OPD of Department of Orthopedics and Department of Surgery, G.G.S. Medical College and Hospital, Faridkot. Out of 30 patients, 16 were males and 14 were females. The patients injured in road traffic accidents, aged 18-50 years, alert and cooperative were selected in inclusion criteria and the patients having cognitive disorders, lack of understanding, cancer related pain and difficulties to understand the requested task and musculoskeletal pain other than road traffic accidents were excluded from the study. 50 subjects were screened, out of which 30 were selected as per inclusion criteria. All the subjects were assessed for pain and functional independence visual analogue scale and Barthel Index Scale respectively.

Data analysis and Results
Table: 1.1:- Describes a significant inverse correlation between pain and functional independence in patients injured in road traffic accidents. The r-value is -0.791

| Correlation     | r Value | p Value |
|-----------------|---------|---------|
| BIS Vs VAS      | -0.791  | .000    |

Discussion:
There are very few studies which examine the specific outcomes of road injury in India from the victim’s perspective. This study has effectively used a combination of quantitative and qualitative data methods to assess outcomes measures to a sample of hospitalized road injury survivors to determine the outcomes of injury and their effects on quality of life.

Pain was a notable factor in this study limiting normal functioning. Similar reports of pain were found by Read et al. (2004) and Anke and Fugl-Meyer (2003) following traumatic injury[4] Mayou suggests that the presence of chronic pain contributes to a circle of events contributing to poor health related quality of life which in turn exacerbates depression and further pain[2].

This study although limited by size has shown that the effect of injury lasts substantially longer than the initial crash event and immediate injury treatment. The majority of injuries were orthopedic and of these a large proportion were leg injuries which may be a result of over half of the sample being vulnerable road users.

Conclusion:
There is significant inverse correlation between pain and functional independence in patients in road traffic accidents. With the increase in the pain the functional dependency also increases. It has been observed that other major problems are given more importance whereas pain is least considered which in turn leads to the functional dependency even after discharge from the In-patient department. Hence, it has been concluded from the above discussion that pain should also be given equal consideration for early and prolonged functional independence.

References:
1. Astrom, J.S, Kent, M.P. and Jovin, R.D.(2006) Signatures of four generations of Road Safety Planning in Nairobi City, Kenya In: Journal of Eastern African Research and Development. Vo.120, pp. 186-201.
2. Mayou R. Medico-legal aspects of road traffic accidents. J Psychosom Res.1995;39(6):789-798[PubMed]
3. http://m.timesofindia.com/india/400-road-deaths-per-day-in-india-up-5-to-46-lakh-in-2015/articleshow/51919213.cms
4. Read KM, Kufera JA, Dischinger PC, Kerns TJ, Ho SM, Burgess AR, Burch CA. Life – altering outcomes after lower extremity injury sustained in motor vehicle crashes. Journal of Trauma. 2004;57(4):815-823.[PubMed]