IJPPR
INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH
An official Publication of Human Journals
ISSN 2349-7203
HUMAN

Human Journals
Research Article
March 2018 Vol.:11, Issue:4

Impact of De-Addiction on Road Traffic Accidents in Bihar

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Submission: 27 February 2018
Accepted: 5 March 2018
Published: 31 March 2018

www.ijppr.humanjournals.com

Keywords: Road Traffic Accident, habitual drinkers, drunken driving, de-addiction

ABSTRACT

Govt. of Bihar enforced a complete ban on liquor from 5 April 2016. 39 de-addiction centers (1 each) in NMCH, Patna, PMCH, Patna and DMCH, Darbangha and in the Sadar/District Hospitals of 36 districts were established before the enforcement of the ban. Approximately 3 Lakh populations in the State were identified as habitual drinkers. Drunken driving is identified as one of the major contributors to road traffic accidents and deaths worldwide. A record based study based on data of Road Traffic Accidents (RTA) collected under the Integrated Disease Surveillance Programme (IDSP) as part of routine surveillance in prescribed format was done. The impact of de-addiction on the incidence of the Road-traffic accidents was evaluated. The de-addiction programme especially banning the liquors in the State by the Govt. of Bihar was found to be effective for reducing the incidence of the road traffic accidents in the State. Further, the de-addiction Programme if properly implemented in the State would greatly help in the socio-economic development of the State.

INTRODUCTION

A road traffic accident (RTA) is an injury due to crashes originating from, terminating with or involving a vehicle partially or fully on a public road. It is projected that road traffic injuries will move up to the third position by the year 2020 among leading causes of the global disease burden. Road traffic injuries are the leading cause of death among young people, aged 15–29 years. Children, pedestrians, cyclists and older people are among the most vulnerable of road users constituting half of those dying on the world's roads. India is no exception and data showed that more than 1.3 lakh people died on Indian roads, giving India the dubious honor of topping the global list of fatalities from road crashes. Rapid urbanization, motorization, lack of appropriate road engineering, poor awareness levels, nonexistent injury prevention programmes, and poor enforcement of traffic laws has exacerbated the situation.[2,3,4]. The data for fatal accidents presented to the Parliament by the Ministry of Road Transport and Highways for the year 2016 shows that the total number of 4,80,652 road accidents were reported causing injuries to 4,94,624 persons and claiming 1,50,785 lives in the country. This would translate, on an average, into 1317 accidents and 413 accident deaths taking place on Indian roads every day; or 55 accidents and 17 deaths every hour. The report for the year 2016 also highlights that drunken driving is one of the major causes of road accidents. Intake of alcohol/drugs by drivers resulted in 14,894 road accidents (3.7 percent) and 6,131 fatalities (5.1 percent) in 2016.

In the total road accidents and total road accident killings, the share of intake of alcohol/drugs by drivers comes to 3.1 percent and 4.1 percent respectively [5]. Globally, some 480,000 deaths and 20 million of people get injured by drunken driving every year. In most high-income countries about 20% of fatally injured drivers have excess alcohol in their blood, i.e., blood alcohol concentration (BAC) in excess of the legal limit. In contrast, studies in low- and middle-income countries like India have shown that between 33% and 69% of fatally injured drivers and between 8% and 29% of non fatally injured drivers had consumed alcohol before their crash [6].

In India, drunken driving is common among the vehicle drivers. Private car owners and youngsters are also major contributors. Small bars along the Indian highways are of prime concern to control drunken driving. India has laws to check the drunken driving but its effective implementation poor. In Bangalore, 28% of crashes involving males over 15 years

were attributable to alcohol. Drunken driving has been responsible for 70% of road fatalities in Mumbai and Delhi [7].

Govt. of Bihar enforced the complete ban on liquor from 5 April 2016. 39 de-addiction centers (1 each) in NMCH, Patna, PMCH, Patna and DMCH, Darbangha and in the Sadar/District Hospitals of 36 districts were established before the enforcement of the ban on 1 April 2016. As per a report of Health Department, Govt. of Bihar, approximately 3 Lakh populations in the State were identified as habitual drinkers [8]. Clinicians and Counsellors were provided training to treat and manage the addicted cases. Besides these, Health Department took other measures for De-addiction in the State like 29 types of medicines for treatment of the cases were made available and provided free of cost, free ambulance services was provided for the addicted cases for referral and treatment at identified Health facilities, regular monitoring of the cases through CCTV, RO water facility, clean bed linen, free diet for the cases and 1 of his/her relative, arrangement of indoor games, TV and magazines for recreation of admitted cases and free and clean toilet facilities were provided. PMCH, Patna and NMCH, Patna were identified as higher referral centers for treatment of complicated addiction cases. Standard Operating Procedures on de-addiction was provided to each district, certain NGOs were also identified for treatment of complicated cases and for their rehabilitation, mock drills on spurious liquor tragedy was held in each district to manage and treat such cases. Community sensitization on the efforts being made by the Health Department for de-addiction was done through intensive IEC activities. Human Chain on de-addiction was organized on 21 Jan 2017 were approximately 3 crore peoples took part. This human chain was recorded in the Guinness Book of World Records. The de-addiction centers are also handling the cases of other types of addictions besides liquor addiction. For this, the Clinicians are being provided training from reputed institutions.

As drunk driving is one of the prominent causes of Road Traffic Accidents and various steps being taken by the Health Department, Govt. of Bihar for de-addiction, the present study was aimed in evaluating the effects of de-addiction Programme on the incidence of road traffic accidents in the State.

MATERIAL AND METHODS:

This was a record based study.

Place of study

The data collected through routine surveillance under the Bihar Integrated Disease Surveillance Programme (IDSP) was used for analysis at the State level.

Case definition

For the purpose of the study, an RTA was defined as an accident, which took place on the road between two or more objects, in which one is any kind of moving a vehicle and the other a human being.

Table 1

STATE SURVEILLANCE UNIT, IDSP

STATE HEALTH SOCIETY BIHAR

MONTHLY REPORT ON CASES AND DEATHS DUE TO ROAD TRAFFIC ACCIDENTS IN BIHAR (2015)

Name of the State/UT/RU:- BIHAR		Reporting Month Jan to Dec; the Year 2015	
Total No. of Govt. Secondary, Tertiary & Super Speciality Medical Care Institutions in the State/UT:	Compiled Data	No of Medical care Institute Reported During the Month	**2015**

Sl. No	Nature/ Group of Non Communicable Diseases	New* Patients Reported/Treated During the Month									Total Deaths During the Reporting Month		
		Out-Patient (OPD) Cases		In-Patient(IPD) Cases Referred Amongst Out-Patients(OPD)		IPD Cases Reported (Direct)		Total Cases					
		M	F	M	F	M	F	M	F	Total	M	F	Total
1	2	3	4	5	6	7	8	9 (3+7)	10 (4+8)	11 (9+10)	12	13	14
1	**Jan**	3591	1332	70	34	668	150	4259	1482	5741	3	1	4
2	**Feb**	2904	1302	78	46	387	145	3291	1447	4738	4	1	5
3	**Mar**	3033	1254	131	74	648	207	3681	1461	5142	0	0	0
4	**Apr**	3466	1271	93	49	529	191	3995	1462	5457	5	1	6
5	**May**	3419	1162	103	44	406	152	3825	1314	5139	8	2	10
6	**Jun**	3042	1178	104	59	742	312	3784	1490	5274	6	2	8
7	**Jul**	2854	1031	80	55	523	183	3377	1214	4591	7	5	12
8	**Aug**	2269	993	49	23	436	159	2705	1152	3857	0	0	0
9	**Sep**	1690	732	14	5	267	117	1957	849	2806	0	0	0
10	**Oct**	2711	1350	116	85	566	198	3277	1548	4825	4	1	5
11	**Nov**	2362	995	137	75	590	175	2952	1170	4122	1	3	4
12	**Dec**	1908	823	62	48	416	153	2324	976	3300	4	4	8
	Total	**33249**	**13423**	**1037**	**597**	**6178**	**2142**	**39427**	**15565**	**54992**	**42**	**20**	**62**

Data collection

Table 2

STATE SURVEILLANCE UNIT, IDSP

STATE HEALTH SOCIETY BIHAR

MONTHLY REPORT ON CASES AND DEATHS DUE TO ROAD TRAFFIC ACCIDENTS IN BIHAR (2016)

Name of the State/UT/RU:- BIHAR		Reporting Month Jan to Dec; the Year 2016
Total No. of Govt. Secondary, Tertiary & Super Speciality Medical Care Institutions in the State/UT:	Compiled Data	No of Medical care Institute Reported During the Month

Sl. No	Nature/ Group of Non Communicable Diseases	New* Patients Reported/Treated During the Month									Total Deaths During the Reporting Month		
		Out-Patient (OPD) Cases		In-Patient(IPD) Cases Referred Amongst Out-Patients(OPD)		IPD Cases Reported (Direct)		Total Cases					
		M	F	M	F	M	F	M	F	Total	M	F	Total
1	2	3	4	5	6	7	8	9 (3+7)	10 (4+8)	11 (9+10)	12	13	14
1	**Jan**	2839	1092	157	108	410	143	3249	1235	4484	0	0	0
2	**Feb**	2660	1110	132	103	514	288	3174	1398	4572	1	0	1
3	**Mar**	2959	1265	159	52	462	104	3421	1369	4790	1	1	2
4	**Apr**	1935	895	145	58	312	83	2247	978	3225	5	0	5
5	**May**	2474	962	253	162	328	89	2802	1051	3853	0	0	0
6	**Jun**	2415	913	299	197	333	110	2748	1023	3771	0	1	1
7	**Jul**	2241	922	282	182	272	78	2513	1000	3513	0	0	0
8	**Aug**	27	21	0	0	47	19	74	40	114	0	0	0
9	**Sep**	1866	771	94	63	240	65	2106	836	2942	1	0	1
10	**Oct**	77	40	0	0	0	0	77	40	117	0	0	0
11	**Nov**	1894	842	251	136	191	50	2085	892	2977	2	0	2
12	**Dec**	2189	946	260	156	522	171	2711	1117	3828	2	0	2
	Total	**23576**	**9779**	**2032**	**1217**	**3631**	**1200**	**27207**	**10979**	**38186**	**12**	**2**	**14**

A prescribed format used for reporting of road traffic accidents as a part of routine surveillance was collected, compiled, analyzed and interpreted. The report includes monthly data as reported by the District Surveillance Unit, IDSP including selected Govt. Medical Colleges and Hospitals.

RESULTS AND DISCUSSIONS

Since the operationalization of the de-addiction programme (liquor free Bihar) from 5 April 2016, 3,02,801 habitual drinkers were identified in the State out of which 2,94, 293 were males and 8508 were females. 39 De-addiction centers were made operational in the State to manage the addicted cases. Till 13 Jan 2017, 9117 cases were provided free treatment in the de-addiction centers. With regard to Road Traffic Accidents in the State before the de-addiction programme was launched in the State in 2015, total 54992 cases and 62 deaths were reported. After the launch of the de-addiction programme by the Govt. of Bihar, the cases of road traffic accidents substantially decreased to 38186 cases and 14 deaths in 2016. As drunken driving is one of the major causes of road traffic accidents, the study reveals that strict enforcement measures like de-addiction can reduce the incidence of RTAs. Besides these, other measures like the use of helmets for two-wheeler riders, setting and enforcing speed limits of the vehicles, setting and enforcing alcohol limits by respective Govt., banning drivers from using hand-held mobile phones while driving and following the road safety protocols can supplement and provide positive thrust in reducing the incidence of the road traffic accidents in the State. Further, the de-addiction Programme if properly implemented in the State would greatly help in the socio-economic development of the State. Results of Road traffic accidents have been summarized in Table 1 to 3.

Table 3

STATE SURVEILLANCE UNIT, IDSP													
STATE HEALTH SOCIETY BIHAR													
Month-wise compiled data on Road Traffic Accident cases in Bihar													
Year	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
2015	5741	4738	5142	5457	5139	5274	4591	3857	2806	4825	4122	3300	**54992**
2016	4484	4572	4790	3225	3853	3771	3513	114	2942	117	2977	3828	**38186**
Month-wise compiled data on Road Traffic Accident Deaths in Bihar													
Year	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
2015	4	5	0	6	10	8	12	0	0	5	4	8	**62**
2016	0	1	2	5	0	1	0	0	1	0	2	2	**14**

CONCLUSION

The de-addiction programme especially banning the liquors in the State by the Govt. of Bihar was found to be effective for reducing the incidence of the road traffic accidents in the State. Strict enforcement of other measures by the Bihar Govt. like the use of helmets for two-wheeler riders, setting and enforcing speed limits of the vehicles, setting and enforcing alcohol limits through laws that establish blood alcohol concentration (BAC) of 0.05g/dl or below are effective at reducing the number of alcohol-related crashes, banning drivers from using hand-held mobile phones while driving and following the road safety protocols can supplement and provide positive thrust in reducing the incidence of the road traffic accidents in the State. Further, the de-addiction Programme if properly implemented in the State would greatly help in the socio-economic development of the State.

ACKNOWLEDGMENT

The authors are thankful to the District Surveillance Unit, IDSP for ensuring regular reporting of the data. Thanks are also due to the Executive Director, State Health Society Bihar for encouragement and support.

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