

Statistical Analysis Project HSCI 2115

Hypotheses:

H₁ – Intoxicated patients will not differ from non-intoxicated patients on their patient variables or crash characteristics.

H₂ – Intoxicated patients and non-intoxicated patients will not differ on their types of crashes.

Methods:

Data were collected retrospectively on 1100 consecutive victims of motor vehicle crashes (MVC's) brought to a Level 1 Trauma Center. Data were obtained from computerized patient records via a direct download to the researcher's computer.

Results:

Table 1. This table presents a comparison of patient and crash variables between intoxicated and non-intoxicated subjects.

	Non-Intoxicated (n = 559)	Intoxicated (n = 541)	p
Speed of crash (mean in mph)	55.3	53.2	.059
Injury Severity Score* (mean)	34.4	23.2	.001
Length of Hospital Stay (mean in days)	18.5	8.4	.031
Age (mean in years)	21.5	37.5	.051
Mortality (% who died)	4.2	1.1	.006
Gender (% male)	67.3	51.1	.022
Seatbelt (% wearing belt)	24.4	53.5	.015
Airbag (% with Airbag deployment)	36.5	32.2	.734
Driver (% who were driving)	56.9	54.0	.582

*Possible injury severity scores ranges from 0 (no injury) to 75 (fatal injury).

Table 2. This table presents a comparison of types of crashes between intoxicated and non-intoxicated subjects.

	Non-Intoxicated (n = 559)	Intoxicated (n = 541)	p
Frontal (head – on) into another car	217 (38.3%)	202 (37.3%)	.055
Frontal (head – on) into a pole or tree	43 (7.7%)	19 (3.5%)	.052
Side Impact – drivers side	142 (25.4%)	151 (27.9%)	.453
Side Impact – passengers side	126 (22.5%)	133 (24.6%)	.232
Other Types	31 (5.5%)	36 (6.7%)	.049
TOTAL	559 (100%)	541 (100%)	