Sensation Seeking and Driving Style Among Young Adults in Chennai City

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Abstract **- The objective of the present study is to assess the relationship between sensation seeking and subscales of multidimensional driving style among young adults; to study gender differences in sensation seeking among young adults; and to study gender differences in driving style among young adults. Convenience sampling method was used to draw the samples from the population. Ex post facto design used. Informed consent was obtained from the samples and a total of 160 male and female young adults who are driving two-wheeler and four-wheeler were selected for the present study. The tools used to collect data are Zuckerman sensation seeking scale (Marvin Zuckerman, 1994) and multidimensional driving style inventory (Taubman-Ben-Ari et.al, 2015) along with a profile sheet with demographic details was also been collected from the sample. The data was analysed using Microsoft excel 2010, SPSS package, Pearson correlation coefficient and independent sample t-test and descriptive statistics.**

The analysis revealed that there is a significant relationship between sensation seeking and dissociative driving style, anxious driving style, risky driving style, angry driving style, distress reduction driving style, high velocity driving style ($p<0.01$). It is also proved that there is a significant difference in sensation seeking among male and female young adults ($p<0.01$). There is a significant difference in dissociative driving style, anxious driving style, risky driving style, angry driving style, high-velocity driving style ($p<0.01$) and distress-reduction driving style ($p<0.05$) among male and female young adults.

Index Terms **- Sensation seeking, Multidimensional Driving style, Young adults.**

INTRODUCTION

Sensation seeking is a personality trait defined by the degree to which an individual seeks novel and highly stimulating activities and experiences. ((Marvin Zuckerman, 1960). People who are high in sensation seeking are attracted to the unknown and consistently seek the new, varied, and unpredictable. Sensation seekers are likely to be impulsive and engage in behaviors that others would find too risky. The risks may be physical (e.g., skydiving), social (e.g., risking embarrassment by dressing unusually), financial (e.g., gambling), or legal (e.g., vandalism). Sensation seekers are easily bored, actively avoid situations and activities likely to be overly repetitive and predictable. Current version of (SS-V) self-report measure includes four subscales such as Thrill and Adventure Seeking (TAS), Experience Seeking (ES), Disinhibition and Boredom Susceptibility (BS). (Marvin Zuckerman 1994)

Driving style generally refers to the way a driver prefers to or habitually drives (Motonori et al., 2007; Martinussen et al., 2014). It is defined by means of a judgment expressed by the driver on a scale ranged from aggressive to cautious. Driving style concerns the way a driver chooses to drive and depends on physical and emotion conditions of the driver while driving (Laura Eboli, 2017). According to Taubman-Ben-Ari et al., there are eight types of driving styles such as Dissociative driving style, anxious driving style, risky driving style, angry driving style, High-velocity driving style, Distress-reduction driving style, patient driving style and careful driving style.

The two most significant demographic factors affecting sensation seeking are gender and age (Zuckerman, 1979, 1994; Zuckerman & Neeb, 1980). Men score higher than women on all subscales except Experience Seeking varies in many different cultures. Some of the other supporting studies investigated that thrill and adventure seeking was a significant predictor of risky work-related driving behaviors (Darren Wishart et. al, 2017). Gender-related differences in distances travelled, driving behaviour and the frequency of involvement in traffic accidents revealed that men drive more kilometers than women but, the

safety devices used by men are less frequently than women, and were involved in risky driving behaviours more often (Eladio Jiménez-Mejías et. al, 2014).

In the current times, where driving has been inevitable, driving style automatically sets in, as the Gen Y and Z has started to dominate the roads with newer and fancier vehicles. This motivated the researcher to understand the relationship between sensation seeking and multidimensional driving style among young adults in Chennai city.

METHODOLOGY

Objectives:

1. To understand the level of sensation seeking and the driving style among young adults in Chennai city.
2. To understand the relationship between sensation seeking and multidimensional driving style among the sample.
3. To understand the gender differences in sensation seeking and the driving style among the sample.

Research design:

The research design used for this present study is Ex-post Facto design.

Sampling and Participants:

The sample consists of 160 young adults, out of which 80 were male and 80 were female college participants. Convenience sampling was followed.

Tools:

The sociodemographic profile which includes their initial, age, course of study, birth order, family type, habitual status, socio economic status and other details about rash driving, use mobile phones while driving, accidents, injury, gamble on racing were collected.

1. Zuckerman sensation seeking scale-V (SSS-V) by Marvin Zuckerman (1994):

The scale consists of 40 forced choice questions designed to assess individual differences in optima level of stimulation. The SSS-V can be scored as a general measure of sensation seeking by summing all items, but can also be split into four 10 item factors such as Thrill and Adventure seeking, Experience seeking, Disinhibition and Boredom Susceptibility

The higher the score (with 40 as the maximum), the more likely seek out novel and intense sensations.

2. Multidimensional driving style inventory (MDSI) by Taubman-Ben-Ari et al (2015):

MDSI is a validated self-report questionnaire which consists of 44 items. Items are rated on a six-point scale (1=not at all to 6=Very much like me). This questionnaire assesses eight factors resulting from the original analysis: Dissociative driving, Anxious driving, Risky driving, Angry driving, High-velocity driving, Distress-reduction driving, Patient driving and Careful driving.

Procedure:

The data from the 160 samples (100 samples were collected manually and 60 samples were online). General instructions were mentioned above the questionnaire and the sample was asked to fill the tools carefully. Informed consent was obtained, and confidentiality was guaranteed to the participants.

Statistical analysis:

The collected data was analyzed using SPSS package. Independent samples t-test and Pearson product moment correlation were used to investigate the results. Descriptive statistics – pie chart used.

RESULTS

Table I: Characteristics of drivers

Personal Details	Groups	N=160	(%)
Rash Driving	Yes	92	57%
	No	68	43%
Using Mobile Phones	Yes	100	62%
	No	60	38%
Met with Accidents	Yes	109	68%
	No	51	32%
Injured while driving	Yes	84	52%
	No	76	48%

Gamble on racing	Yes	93	58%
	No	67	42%

Table 1 reveals the characteristics of driving in which majority 57% of the participants involved in rash driving. It is also evident from the sample that majority 62% of the adults uses their mobile phone while driving and 68% of adults have been met with accidents while driving. It is additionally discovered from the table that there is not much differences between the participants who got injured while driving and who prefer to gamble on racing.

Table II: Relationship between Sensation Seeking and Subscales of Multidimensional driving styles:

Variables		Sensation Seeking
Multidimensional driving style	N	Correlation Coefficient
Dissociative driving style	160	0.381**
Anxious driving style	160	0.260**
Risky driving style	160	0.575**
Angry driving style	160	0.358**
High-velocity driving style	160	0.234**
Distress-reduction driving style	160	0.430**
Patient driving style	160	0.001NS
Careful driving style	160	0.049NS

**P<0.01 (Dissociative, anxious, risky, angry, high-velocity, distress reduction driving style)

NS Not Significant (Patient and careful driving style)

From table 2, the obtained values of Pearson product moment correlation for dissociative, anxious, risky, angry, high-velocity and distress reduction driving styles was found to be 0.381, 0.260, 0.575, 0.358, 0.234 and 0.430 respectively that shows a positive relationship between sensation seeking and driving styles (dissociative, anxious, risky, angry, high-velocity and distress-reduction). It is also evident that the correlation for patient and careful driving styles was found to be - 0.001and - 0.049 respectively which indicates that there is no significant relationship between sensation seeking and patient and careful driving style of young adults.

Table III: Gender differences in sensation seeking:

Variable	Sample	N	Mean	SD	t value	df	p value
Sensation	Male	80	28.26	5.142			
Seeking	Female	80	24.55	5.262	4.513**	158	0.001

**P < 0.01

From table 3, the mean and standard deviation values of male (M= 28.26, SD= 5.142) and female (M= 24.55, SD= 5.262) of sensation seeking and the t value was found to be 4.513, p<0.01 which shows that there is a significant difference between male and female young adults. The male drivers have a higher mean in sensation seeking.

Table IV: Gender differences in Subscales of Multidimensional driving

Variables							
Multidimensional driving Style	Sample	N	Mean	SD	t value	df	p value
Dissociative driving style	Male	80	27.5	7.124			
	Female	80	22.45	5.73	4.94**	158	0.01
Anxious driving style	Male	80	23.75	4.57			
	Female	80	21.01	4.62	3.765**	158	0.01
Risky driving style	Male	80	17.92	4.510			
	Female	80	14.61	4.897	4.449**	158	0.01
Angry driving style	Male	80	18.11	4.27			
	Female	80	14.76	4.42	4.87**	158	0.01
High-velocity driving style	Male	80	21.98	4.348			

	Female	80	18.36	4.795	4.99**	158	0.01
Distress-reduction driving style	Male	80	14.8	3.537			
	Female	80	13.52	4.245	2.06*	158	0.04
Patient driving style	Male	80	14.37	3.262			
	Female	80	14.11	3.929	0.459 NS	158	0.65
Careful driving style	Male	80	18.41	3.429			
	Female	80	19.47	4.158	1.76 NS	158	0.08

**p<0.01 (Dissociative, anxious, risky, angry, high velocity)

*p<0.05 (Distress-reduction)

NS Not significant (patient, careful driving styles)

Table 4 shows independent samples t-test to compare the scores of male and female for subscales of driving style. There is a significant difference between male and female young adults in dissociative, anxious, risky, angry, high-velocity driving styles ($t(158) = 4.94$, $t(158) = 3.765$, $t(158) = 4.449$, $t(158) = 4.87$, $t(158) = 4.99$ respectively $p<0.01$). It is also evident that there is a significant difference for distress-reduction driving style ($t(158) = 2.06$, $p<0.05$). There was no significant difference found between patient driving style ($t(158) = 0.459$, $p = 0.65$) and careful driving style ($t(158) = 1.76$, $p = 0.08$).

DISCUSSION

The interpretation of this research indicates that there is positive correlation between sensation seeking and dissociative, anxious, risky, angry, high-velocity driving style and distress-reduction driving style which shows that individuals who have higher level of sensation seeking tend to be adopt these mentioned styles of driving. It is evident that there is a significant difference in sensation seeking among the male and female young adults, where the male drivers seem to have higher tendency of sensation seeking compared to the female drivers, who seem to engage in patient and careful driving style. This was supported by the study done by Taubman-Ben-Ari O et. al, (2012), who report that reckless and angry styles were both endorsed more by men than women, but the anxious and careful driving style was endorsed more by women.

Recent research has indicated there is a relationship between the driving styles adopted by young drivers and their crash involvement. (Allan F Williams & Oliver Carsten) Young driver accidents were more likely to be attributed to factors related to inexperience. There were also differences in reported contributory factors for males and females such as careless, reckless or in hurry and exceeding speed limit were more often attributed to young male drivers compared with young female drivers. Young female drivers were slightly more frequently assigned factors such as nervous, uncertain, or panic or failed to judge other person's path or speed, but the percentage differences between males and females were small.

CONCLUSIONS

The finding of the study reveals that the men with high sensation seeking are most likely to be involved in angry and risky driving behaviour and that women tend to choose careful driving compared to male drivers.

LIMITATIONS AND RECOMMENDATION

The research was done only with 160 young adults and a particular age group in a limited geographical area of Chennai city. A larger sample covering a wider geographic area and comparison between the experienced drivers and young drivers can be studied.

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