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Road Safety Practices While Driving among Non-Medical University Students in Karachi

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Abstract

Background: Unsafe road safety practices and disregard for traffic laws among university students have emerged as significant problem that warrants urgent attention.

Objective: To assess the road safety practices of non-medical university students of Karachi.

Methodology: This cross-sectional study was conducted in four non-medical universities in Karachi from August 2017 to February 2018. A self-administered questionnaire assessing road safety practices was filled out by 290 students. The chi-square test was used to detect associations of practices among various categories.

Results: A total of 300 students were approched and 290 of them responsded. Out of 290 respondents, 66.2% were male and 33.8% were female. The majority (65.9%) were aged between 18-25 years, and 34% aged between 25-35 years. The majority (77.6%) had a valid driving license. Most of the students (61.7%) drove cars, 31.3% rode motorcycles/motorbikes and 6.8% drove both car and motorcycle. Fifty-five percent had incorrect and 45% had correct road safety practices. The most common incorrect practices were racing with neighbouring vehicles, using mobile phones, listening to music, and smoking. Among car-driving student respondents with correct practices, the majority were female (65.8%) and had started driving after 18 years of age. Among motorcycle-riding students with correct practices, 86% had a driver's license while for those with incorrect road safety practices, 87% started riding below 18 years of age and 29.3% had met with an RTA. Among respondents driving both cars and motorcycles, 71.4% had a driver's license.

Conclusion: Road safety practices were found to be unsafe among university students. Significant associations were observed with gender and the presence of a driver's license.

Keywords: *Practices, road safety, non-medical university students.*

INTRODUCTION

Road traffic accidents (RTA) are the eighth leading cause of death for people of all ages and the number one leading cause of death among young people aged 5-29 years [1]. RTAs cause up to 50 million injuries and claim 1.35 million deaths each year and 10 per 1000 people become disabled for life. Low- and middle-income countries, like Pakistan, account for 93% of global fatalities occurring as a result of road traffic accidents [2]. In Pakistan, 28,170 fatalities (1.93% of total deaths) have occurred as a result of road traffic accidents, according to data published by the World Health Organisation in 2020 [1].

The age-adjusted Death Rate is 15.18 per 100,000 of the population, with 70% of all injured road users being either pedestrians or individuals riding two-wheel vehicles without wearing helmets [3]. The ramifications of road accidents can be colossal and deeply affect individuals, their health, and welfare, and also impacts the economy. These numbers continue to surge with the expansion of road networks, rapid urbanisation, and motorisation. Pedestrians, motorcyclists, and cyclists form the majority of those dying and are considered 'vulnerable road users' [2]. Risky road behaviours and unsafe practices are the most significant predictors of RTAs among teenagers and young adults. Behavioural risk factors involved in RTAs are over-speeding (speeding more than 50km/hr), driving under the influence of alcohol, nonuse of helmets, seatbelts, and distracted driving [4].

Only 28 countries, representing 416 million people (7% of the world's population), have national laws regarding these road safety practices and violations. However, more than often such laws are inadequately enforced-particularly in low-income and middle-income countries [2]. A study from Pakistan revealed that among medical students who drove/rode to their university, the majority (68%) did not have a driver's license. Of students who used bikes for transportation, 56.5% did not wear helmets and 58.7 did not wear seatbelts [5].

Unsafe road safety practices and disregard for traffic laws have emerged as a significant problem that warrants urgent attention. As countries begin to address this issue, frequent assessments of road safety practices are needed to measure global progress and enable countries to conduct comparative research. Since there

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was published data assessing road safety practices in medical students, our study aimed to assess the road safety of non-medical university students in Karachi

METHODOLOGY

The present study was a descriptive, cross-sectional study conducted from 20th August 2017 to 19th February 2018, in 4 different non-medical universities of Karachi.

A list of all private and government universities of Karachi was obtained from Higher Education Commission (www.hec.gov.pk) and 4 universities, 2 government *i.e.* Karachi University and NED University of Engineering, and two private *i.e*. Bahria University & Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology, were selected by simple random sampling. Both private and government universities were selected to ensure the representation of diverse socioeconomic backgrounds.

Study participants included students, both male and female, aged between 18-25 years, from all years of study who were drivers of cars or riders of motorcycles/motorbikes or both were approached through convenience sampling and briefed on the nature and purpose of the study.

Students were approached in the students' common room and cafeteria during their free slots. Those who were absent and not willing to participate were excluded from the study.

The sample size was calculated with WHO software for sample size determination. From the literature review, we found that the least prevalence of correct practices regarding road safety among university students is 15% [5]. Based on this value, with a 4% margin of error at 95% confidence level the sample size was calculated to be 300, approximately 75 students from each university.

A pre-designed, pilot-tested coded questionnaire was administered to 300 university students and was completed by 290 students (response rate of 96.7%). The questionnaire was self-administered and was designed with the help of published literature [5-13] and checked for validity (Cronbach alpha >0.8). It comprised three sections. Section one contained the students' demographic details (age, gender, marital status, the field of study-Bachelor's, Master's, PHD., level of current education, availability of driving license (including learner's license), age at which driving was started, and history of RTAs in past. Section two contained questions to assess the practices regarding road safety among respondents who drove cars. Road safety practices whether correct or incorrect were assessed by investigating about use of seat belts, use of mobile phones, overtaking, and following traffic rules (driving with a license, stopping at traffic signals, *etc.*). This part included 11 items; each correct response had a score of "1" while every wrong answer was scored as "0".

Results were presented as percentages. Section three contained questions to assess the practices regarding road safety amongst respondents who rode bikes. We inquired about the use of helmets, overloading on motorbikes (more than 3 passengers), and performing any distracting activities while riding such as answering or making a phone call, reading or sending text messages, listening to music, eating, drinking, and smoking while riding bikes. This part included 10 items; each correct response had a score of "1" while every wrong answer was scored as "0". A total of 21 questions were asked and so those scoring below 13 (less than 60%) were marked as having incorrect practices and those above the score of 13 were marked as having correct practices.

STATISTICAL ANALYSIS

Data were entered and analyzed in SPSS version 19. Baseline information on demographics was analyzed using descriptive statistics. For categorical variables such as gender (male/ female), marital status (single/ married), the field of study (Bachelor's, Master's, Ph.D.), availability of driving license (yes/ no), and practices regarding road safety [(correct/incorrect)- Frequencies and percentages were reported. Quantitative variables such as age, practice score- mean and standard deviation were reported. Pearson Chi-square test was used to detect significant associations of practices among various categories. All analyses in the study were two-tailed, and p-values of 0.05 or less were considered statistically significant.

Ethical approval was obtained from the Ethical Review Committee of the Aga Khan University Hospital Karachi (ERC no. 4484-Med-ERC-16) before the study's commencement. Additionally, written permission was also taken from principals of the universities where the study was conducted. For ethical reasons, standard measures were taken to ensure the confidentiality of the participants and after completion of the study, results of the assessment were provided to the university principals to help them incorporate a possible plan for road safety education.

RESULTS

A total of 300 students were approached, of either gender, between the ages 18-35 years driving motor vehicles for at least 6 months (including cars and motor-

bikes), out of which 290 students answered and their road safety practices were assessed (response rate of 96.7%). Among 290 university students, 55% (n=160) were found to have incorrect road safety practices, and 45% (n=130) were found to have correct road safety practices.

Sociodemographic Data of Respondents

In the present study, out of 290 students, 65.9% (n=191) were in the age group between 18-25 years, while the rest 34% (n=99) were in the age group between 25-35 years. The majority of the respondents, 66.2% (n=192) were male and 33.8% (n=98) were female. Out of the total 290 respondents, 45.2% (n=131) were undergraduate (bachelor's), 30.7% (n=89) were graduates (masters') and 24.1% (n=70) were postgraduate (Ph.D.) students. The majority of the students, 77.6% (n=225) 78% (n=225), were single, and 22% were married (n=65).

Fifty-seven percent (n=164), started driving below 18 years of age without getting a valid license and 43% (n=126) after 18 years of age. The majority of the participants, 77.6% (n=225) had a driving license while 22% (n=65) did not have a license. Details are presented in **Table 1.**

Table 1: Sociodemographic data of respondents (n=290).

Variables		n(%)
Age (years)	18-25	191 (65.9)
	25-35	99 (33.9)
Gender	Male	192 (66.2)
	Female	98 (33.8)
Education level	Undergraduate	131 (45.2)
	Graduate	89 (30.7)
	Postgraduate	70 (24.1)
Marital Status	Single	225 (78)
	Married	65 (22)
Driver's license	Yes	225 (77.6)
	No	65 (22)
Age at which driving was started (inyears)	Below 18 years	164 (57)
	After 18 years	126 (43)

Out of the total 290 respondents, the majority 61.7% (n=179) were students who drove cars, 31.3% (n=91) were students who rode motorcycles/motorbikes and 6.8% (n=20) were students who drove both cars and bikes to the university.

Road Safety Practices among Respondents Driving Cars (n=179)

Among student respondents who drove cars (n=179), only 72.6% (n=130) of students used seatbelts while driving cars, and stopping at traffic signals was practiced by 91% (n=168). The most common incorrect practices in this subset of respondents included racing with neighbouring cars (98.9%), answering or making a phone call while driving (98.9%), reading or sending text messages while driving (98.9%), listening to or adjusting the radio or music system while driving (98.9%), and smoking while driving (98.9%). These were followed by, talking to accompanying passengers while driving (98.4%) and getting angry when pestered by other drivers (98.3%). Detailed frequency distribution of road safety practices among student respondents who drove cars is presented in **Table 2.**

Table 2: Frequency distribution of practices regarding road safety among non-medical university students who drive cars (n=179). were marked as having correct practices.

Q#	Practices of students while Driving Car (n=179)	Frequency (%)	
		Yes	No
1	Do you wear a seat belt?	130 (72.6)	49 (27.4)
2	Race with neighboring cars?	177 (98.9)	2 (1.1)
3	Stop by signals to follow road traffic rules and regulations?	162 (90.5)	17 (9.5)
4	Answer or make a phone call while driving?	177 (98.9)	2 (1.1)
5	Read or send text messages while driving?	177 (98.9)	2 (1.1)
6	Listen to or adjust a radio or music system while driving?	177 (98.9)	2 (1.1)
7	Talk to accompanying passengers while driving?	178 (98.4)	1 (0.6)
8	Eat or drink while driving?	177 (98.9)	2 (1.1)
9	Smoke while driving?	177 (98.9)	2 (1.1)
10	Become angry when pestered by other drivers?	176 (98.3)	3 (1.7)
11	Use tinted glasses in cars?	122 (68.2)	57 (31.8)

In this group, out of 179 respondents, only 40% (n=73) had correct road safety practices while 60% of respondents had incorrect road safety practices. Among those with correct road safety practices, 65.8% (n=48) were females and 68% (n= 50) were respondents who had started driving after the age of 18 years. This association observed with gender (p=0.003) and driving age (p=0.000) among those with correct road safety practices, was found to be statistically significant. As presented in **Table 3.**

Table 3: Association of practices of students while driving a car (n=179).

Variables	Groups	Correct Practices n(%)	Incorrect Practices n(%)	p-value
Age Group (years)	18- 25	44 (60.3)	68 (64.2)	0.598
	25- 35	29 (39.7)	38 (35.8)	
Gender	Male	25 (34.2)	60 (56.6)	0.003*
	Female	48 (65.8)	46 (43.4)	
Marital status	Single	43 (58.9)	71 (67.0)	0.269
	Married	30 (41.1)	35 (33.0)	
Level of current education	Undergraduate	30 (41.1)	49 (46.2)	0.632
	Graduate	22 (30.1)	33 (31.1)	
	Postgraduate	21 (28.8)	24 (22.6)	
Driving started age	Below 18 years	23 (31.5)	63 (59.4)	0.00*
	18 years or above	50 (68.5)	43 (40.6)	
Driving license obtained	Yes	64 (87.7)	81 (76.4)	0.059
	No	9 (12.3)	25 (23.6)	
RTA met by the driver	Yes	41 (56.2)	42 (39.6)	0.093
	No	29 (39.7)	58 (54.7)	

*Chi-Square Test was applied, and P-value ≤ 0.05 was considered as significant, * Significant at 0.05 level.*

Road Safety Practices among Respondents Riding Motorcycle/ Motorbikes (n=91)

Out of the total 290 respondents, 31.3% (n=91) included a second group of respondents including students who rode motorcycles/motorbikes to university (n=91). Among these student respondents, 71.4% (n=65) reported to wearing a helmet while riding the vehicle and stopping at traffic signals was practiced by 73.6% (n =67) of student respondents who rode motorcycles/motorbikes. Nearly 60% (n=54) admitted to racing with other motorbikes/motorcycles and reading or sending text messages while riding, making these the most common incorrect practices in this group of respondents, followed by 58.2% (n=53) reporting eating, drinking, and smoking while riding the vehicle. Other incorrect practices included making/answering phone calls and listening to music while riding the vehicle, practiced by 53.8% (n=49) of respondents in this group. Detailed frequency distribution of road safety practices among respondents who rode motorcycles/bikes is presented in **Table 4.**

Table 4: Frequency distribution of practices regarding road safety among non-medical university students who drive motorbikes (n=91).

Q#	Practices of students while Driving Bike	Frequency (%)	
		Yes	No
1	While driving a bike, do you wear a helmet?	65 (71.4)	26 (28.6)
2	Race with neighboring bikes?	54 (59.3)	37 (40.7)
3	Stop by signals to follow road traffic rules and regulations.	67 (73.6)	24 (26.4)
4	Answer or make a phone call while driving?	49 (53.8)	42 (46.2)
5	Read or send text messages while driving?	54 (59.3)	37 (40.7)
6	Listen to or adjust a radio or music system while driving?	49 (53.8)	42 (46.2)
7	Talk to accompanying passengers while driving?	47 (51.6)	44 (48.4)
8	Eat or drink while driving?	53 (58.2)	38 (41.8)
9	Smoke while driving?	53 (58.2)	38 (41.8)
10	Become angry when pestered by other drivers?	50 (54.9)	41 (45.1)

In this group of respondents, 55% (n=50) were found to have ad safety practices while the remainder, 45% (n=41) had incorrect road safety practices. Among those with incorrect road safety practices, 63.4% (n=26) were undergraduate students, and 85.4% (n=35) were single and belonged to the age group between 18-25 years. Eighty-seven percent (n=36) started driving below 18 years of age, and 29.3% (n=12) had met with a road traffic accident in the past.

Among those with correct road safety practices, 86% (n=43) possessed a valid driver's license. Statistically significant associations of motorcycle/bike riding practices were observed with age (p=0.013), marital status (p=0.034), level of current education (p=0.042), driving

age (p=0.002), driving license obtained (p=0.000) and RTA met by the driver or any family member (p=0.002) as presented in **Table 5.**

Table 5: Association of practices of students while riding a motorcycle/bike (n=91).

Variables		n(%)		p-value
		Correct Practices	Incorrect Practices	
Age Group (years)	18-25	31 (62.0)	35 (85.4)	0.013*
	25-35	19 (38)	6 (14.6)	
Gender	Male	48 (96.0)	41 (100)	0.195
	Female	2 (4.0)	0 (0)	
Marital status	Single	33 (66.0)	35 (85.4)	0.034*
	Married	17 (34.0)	6 (14.6)	
Level of current education	Undergraduate	19 (38)	26 (63.4)	0.042*
	Graduate	17 (34.0)	10 (24.4)	
	Postgraduate	14 (28.0)	5 (12.2)	
Driving started age	Below 18 years	29 (58)	36 (87.8)	0.002*
	18 years or above	21 (42.0)	5 (12.2)	
Driving license obtained	Yes	43 (86.0)	22 (53.7)	0.00*
	No	5 (10)	19 (46.3)	
RTA met by the driver	Yes	29 (58.0)	12 (29.3)	0.002*
	No	16 (32.0)	28 (68.3)	

** Significant at 0.05 level.*

Road Safety Practices among Respondents Driving Both Car and Riding Motorcycle/ Motorbikes (n=20)

Practices regarding road safety were also assessed among student respondents who used both cars and motorcycles as means of transportation (n=20). Detailed frequency distribution is presented in **Table 6**.

Table 6: Frequency distribution of responses of drivers of both bike and car (n=20).

Q #	Practices of students while Driving both Bike And Car		Frequency(%)	
			Car	Bike
1	While driving the vehicle, do you wear a seat belt/ helmet?	Yes	15 (75)	13 (65)
		No	5 (25)	7 (35)
2	While driving the vehicle, do you race with neighboring cars/ bikes?	Yes	20 (100)	12 (60)
		No	0 (0)	8 (40)
3	While driving the vehicle, do you stop by at signals to follow road traffic rules and regulations?	Yes	19 (95)	16 (80)
		No	1 (5)	4 (20)
4	While driving the vehicle, do you answer or make a phone call?	Yes	20 (100)	13 (65)
		No	0 (0)	7 (35)
5	While driving the vehicle, do you read or send text messages?	Yes	20 (100)	16 (80)
		No	0 (0)	4 (20)
6	While driving the vehicle, do you listen to or adjust a radio or music system?	Yes	20 (100)	14 (70)
		No	0 (0)	6 (30)
7	While driving the vehicle, do you talk to accompanying passengers?	Yes	20 (100)	6 (30)
		No	0 (0)	14 (70)
8	While driving the vehicle, do you eat or drink?	Yes	20 (100)	13 (65)
		No	0 (0)	7 (35)
9	While driving the vehicle, do you smoke?	Yes	20 (100)	13 (65)
		No	0 (0)	7 (35)
10	While driving the vehicle, do you become angry when pestered by other drivers?	Yes	20 (100)	6 (30)
		No	0 (0)	14 (70)
11	While driving the vehicle, do you use tinted glasses in cars?	Yes	11 (55)	Not applicable
		No	9 (45)	Not applicable

Significant at 0.05 level.

In this group of respondents, 65% (n=13) had incorrect road safety practices and 35% (n=7) were found to have correct road safety practices. Among those with correct road safety practices, 71.4% (n=5) owned a driver's license. The only significant association observed in this group were correct road safety practices and owning a valid driver's license (p=0.042). No other significant associations were identified as presented in **Table 7.**

Table 7: Association of practices of students while driving both bike and car (n=20).

Variables		n(%)		p-value
		Correct Practices	Incorrect Practices	
Age Group (years)	18- 25	5 (71.4)	6 (46.2)	0.279
	25- 35	2 (28.6)	7 (53.8)	
Gender	Male	7 (100)	12 (92.3)	0.450
	Female	0 (0)	1 (7.7)	
Marital status	Single	6 (85.7)	8 (61.5)	0.260
	Married	1 (14.3)	5 (38.5)	

Level of current education	Undergraduate	2 (28.6)	3 (23.1)	0.900
	Graduate	2 (28.6)	5 (38.5)	
	Postgraduate	3 (42.9)	5 (38.5)	
Driving license obtained	Yes	5 (71.4)	13 (100)	0.042*
	No	2 (28.6)	0 (0)	
Driving started age	Below 18 years	4 (57.1)	9 (69.2)	0.580
	18 years or above	3 (42.9)	4 (30.8)	

**Significant at 0.05 level.*

DISCUSSION

In the present study, 66% of the total participants, were males and they belonged to the 18-25 year age group. The majority of the participants drove cars (61.7%), as compared to motorcycles/bikes (31.3%). Similar trends have been reported by earlier studies on the assessment of road safety practices also similar trends [5-7]. The majority of the study participants (78%) had a valid driving license This finding is relatively better as compared to those reported in earlier studies among university students. Balaji *et al.* reported 59.6% [8], El-Gendy *et al.* reported 60.6% [9], Sangani *et al.* reported 31% [5] and Helal *et al.* reported only 9.6% of respondents have a valid driving license [10].

In the current study, more than half (55%) of the participants were involved in incorrect road safety practices and the remainder (45%) had correct road safety practices. The most common incorrect road safety practices were racing with neighboring cars (98.9%), use of mobile phones (98.9%), listening to music (98.9%), and smoking while driving (98.9%). Nearly 60% of participants riding motorcycles admitted to racing with other motorbikes/ motorcycles and reading or sending text messages, followed by 58.2% reporting eating, drinking, and smoking while riding the vehicle.

The use of mobile phones is another significant risk factor for road traffic accidents. In our study, 99% of the students that drove cars admitted to using their phones to call and send text messages. However, 49% of bike riders used mobile phones. In consistency with our findings, studies have reported 42.7% [11], 7.2% [6], and 3.02% [12] of participants using mobile phones while driving/riding. Our study also found that stopping at traffic signals was practiced by 91% of students who drove cars and 67% of students riding bikes followed road traffic laws and regulations. This is contrary to studies where a majority of students showed disregard for traffic laws and denied stopping at traffic signals regularly [5-11]. Another shocking practice highlighted in our study was that 99% of students smoked while driving a car and 53% of bike riders smoked. Such distractions compromise the safety of the driver, passengers, bystanders, and those in other vehicles.

Several significant associations were observed in the present study which included that among car-driving student respondents, the majority of those who had correct safety practices were female and had started driving after the age of 18 years. These findings are in agreement with Turner *et al.* who also reported that females had better road safety practices as compared to males and that those with correct road safety practices had started after the age of 18 years [13].

The present study also found that in motorcycle-riding student respondents with incorrect road safety practices, 87% had started driving below the age of 18 years, and 29.3% had met with a road traffic accident in the past. In the same group of respondents, 86% of participants with the correct road possessed a valid driver's license. Lastly, among student respondents who drove both car and motorcycle and had correct road safety practices, 71.4% possessed a driver's license. Driving without a driver's license is an offense and is associated with a greater risk of accidents. Many international studies have shown that driving without a valid license is associated with a greater risk of accidents and resulting fatalities [14-19].

Adherence to safety rules is essential in preventing RTAs. Despite a multitude of evidence favouring the use of seat belts and helmets their use among student drivers conform with those reported by Balaji *et al.* (83%), [8] and Emmily *et al.* (80%) [20], but differ from the findings of Sangani *et al.* [5] who found that only 41.3% of university students wore seat belts. Non-use of seat belts is associated with significant morbidity and mortality. One study even reported that 12% of drivers with serious injuries and one-third of drivers involved in fatal RTAs were individuals not wearing a seatbelt [3]. Proper use of safety restraints can save many lives. The use of helmets in preventing traumatic head injuries and mortality among riders is also widely recognised. A study from Pakistan found a low prevalence of helmet use to be associated with a significant frequency of head trauma. Out of 835 drivers, 667 (79.8%) were not wearing a helmet at the time of the accident [21]. In the present study, 71.4% (65) of participants wore helmets while riding. These findings are in line with those reported by Ratna *et al.* [22] who also reported greater than

70% of students wearing helmets, but contrary to the findings of Sangani *et al.* [5] who reported only 43.5% of students wearing helmets.

Road traffic accidents are a major but neglected epidemic, requiring concrete efforts for prevention. Governments need to enforce comprehensive laws requiring all road users to be protected by appropriate occupant restraints and to respect speed limits and to refrain from driving after alcohol consumption. Traffic law enforcement for all drivers, road safety education, enhanced supervision, and graduated licensing for novice drivers would contribute to road safety. Enforcement efforts must be highly visible well-publicized and implemented by use of appropriate measures and penalties for infringement.

STRENGTHS AND LIMITATIONS

There are several strengths of this study. Firstly, to the best of the author's knowledge, it is the first study of its kind to be conducted in the country with a specific interest to assess the practices of youth. Secondly, the survey questionnaire was made based on various reviewed articles and the questionnaire was piloted before the study was started. Thirdly, the sample was collected from both government and private universities, to ensure representation of participants from various socio-economic strata. Although the findings cannot be considered representative of the general youth of Karachi. Moreover, since the questionnaire was self-administered, the chances of information reporting bias cannot be denied.

CONCLUSION

Road safety practices were found to be relatively unsafe amongnon-medical university students. More than half (55%) of participants were involved in incorrect road safety practices. Among car-driving student respondents with correct practices, the majority were female (65.8%) and had started driving after 18 years of age. Among motorcycle-riding students with correct practices, 86% had a driver's license while for those with incorrect road safety practices, 87% started riding below 18 years of age and 29.3% had met with an RTA. Among respondents driving both cars and motorcycles, 71.4% had a driver's license. Significant associations were observed with gender and the presence of a driver's license.

Improving road safety is a multidimensional task. Thus, awareness needs to be brought up at the institutional level and road safety practice education is warranted in all institutions – schools, colleges, and universities.

ETHICAL APPROVAL

Ethical approval was obtained from the Ethical Review Committee of the institution (ERC-4484-Med-ERC-16) before the study's commencement. All procedures performed in studies involving human participants were following the ethical standards of the institutional and/ or national research committee and with the Helsinki Declaration.

CONSENT FOR PUBLICATION

Written informed consent was taken from the participants after explaining to them the purpose of the study and the protocol involved

AVAILABILITY OF DATA

The data set may be acquired from the corresponding author upon a reasonable request.

FUNDING

Declared none.

CONFLICT OF INTEREST

The author declare no conflict of interest.

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AUTHOR'S CONTRIBUTION

RF developed the protocol of the study, formed the questionnaire, and carried out data collection. SP prepared the manuscript. MA supervised the entire project.

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