

Smart Phones and Electronic Devices Impact on the Society People Life and Health-Andhra Pradesh, India

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ABSTRACT:

Electronic communication devices and smart phones are not only provide a comfort like communication exchange, information sharing entertainment but also cause to the mental and physical problems. In this examination conducted based on the descriptive cross sectional study the age people between 20-60 years in the coastal Andhra the period of November 2024-April 2025. 878 (round up 880) samples were collected based on the non probability random sample taking the date was collected by the pre prepared questionnaire and face -face to oral interview method. The samples are collected by the age group, marital status, Gender consent of Literates and Illiterates characters among 878 people most of the educators 500 (57%) remaining are un educators 378 . First examinations among the 878 , 470 (53%) users are use for the communication, 312(35.5%) users use it less than 4 hours out of more than 10 hours, other electronic device users 324(37%), ear phone users are 628(71.5%), phone kept towards sleeping 644(73%), 590 (67%) users are use the phone before sleeping less than 2 hours, 572(65%) responders are expenditure the money below 500Rs, Maintain the social media account holders following the Twitter 24%, Face book 58%, Instagram 73%. The second examine identified the health hazards effect by the phone eye problems 256(29%), Ear 112 (13%), physical discomfort mean value 18.36, Mental discomfort mean value 20.62.

Key words: Cell phone, Smart phone, Smart devices. Health hazards.

I. INTRODUCTION

Electronic smart touch phones and their technologies are widely using in the society [10]. Today humans are will deeply connective with net work devices. Total society is more and extensively

depends up on them once wire communication today totally converted to the wireless devices like mobile phones, Tablets, Audio players, Laptop digital cameras etc are used to information exchange by the Wi Fi. Now a day's social networks allow people to interact with the others make new relationships without any long knowledge, this relations today leads to harmful effects like cyber crime civil crime illegal affairs, edict to drugs etc. Smart wireless devices are provide the different easiest convenient factors according to this the people have become more reticulate participation in the different sectors. Mostly edict to the visiting friends, shopping is online mode, collect needs from the different services indiscriminately. Consequently people have been suffering with different health problems due to lack of the physical mental causes and radiations from the different smart electronic devices [22]. More over these indiscriminate communications and relations should lead to inter family relation problems like broken the families, increase distance between the couples. Some smart phones and devices have integrated with effective innovative invention of modern time. Internet is movable thing to the all devices, today whatever information wants to us when ever easy possible to this smart devices are make individual availabilities any time and any where is need. These are made like individual change makers interact with in and outside of the society. Consent of social media , before 20th century world wide mobile phone users are more or less 12.2-12.3 millions. Today with in the short period of 20-25 years smart phone subscription are making to 5.6-5.8 billions as per percentage rapidly penetrating to 70% of the global population. It is usage also become different health problems have been reports of plenty health hazards consent of physically and mentally. Increasing day by day

mobile users of all age group numbers of social networking sites like what's app, Twitter, Face book, My space, Instagram, Telegram etc. Toda face book is a biggest follower's net work site out of the other net work sites. Face book was started on 04-feb-2004 by the Mark Zuckerberg. In the short period of first decade subscribers are reached the 1.39 billion in the year of 2014. According to recent data Indian face book followers are 378-383 millions. Twitter followers in the world wide 388 millions, followed by India 24.09 millions. Users will increase day by day, majority of its age holders are teenagers. Face book and social media accounts are become an integral part of each person social life. Smart mobile devices are most use full to the each human life as communication, education knowledge, current discovers and current issues in the world. The increasing mobile radiation is highly influence to the human health as directly or indirectly and cause to the human hazards. Electronic net work devises are release the microwave radiation its cause to effect to all living organisms and cause to the silent side effects like blood brain barriers , blood pressure physiological problems anxiety. Social media is negative effect on the education concentration [3]

II. METHODS

a) Study type: this examination conduct based on the descriptive cross sectional study between the age people 20-60 years based on the face to face and oral interview pre prepared questioner method

b) Study area: In this cross sectional random study was conducted in Srikakulam, Vizayanagaram, Vizag of Costa Andhra the time period between November 2024-April 2025 among general population the age period 20-60 years.

c) Sample collection:

We collect the data samples who are given self willing. We are collecting the samples data with use of pre prepared questioner method and face -face, oral interview. Total collected sample are 900, out of them 22 samples are correct consent of information is not expressed, that is delete from the total samples and finalized

878(round up 880). Finally above collected data were coded, edited, detect the errors with maintenance and validity. Finally the data design by MS Excel and tactical package for social science software. Calculate for descriptive statics, we can median, standard deviation for numerical data frequencies. Percentage is categorical and the financial data and graphs. Chi-square test used for inferential spastics.

III. RESULTS

The present examine study showed among the 878 responders data was considered out of 900 samples. In this use of smart mobile phone risk factor is high in different health hazards; the risk development is increase that is indiscriminately using more than normal. According to this study the people will conditional purchase the health problems of mentally and physically [3]. Especially eye and ear problems are mostly identified in users, who are un necessarily using, it is not only the examine health problems but also family bonding broken by the social media friendship. Smart phone is a good weapon to the educational sector but truly most of teenagers who are in the studies, they are totally convert to side routes like online games, real's and friendship chatting [7] . It's most effect to the student's life. When the smart phone uses is higher than relations also disturbed and not concentrate on the original work. In this research try to bring attention about the potential risks of cell phone and other smart devises and causes aware the some solutions like how side effects will come, why cell phones will use in limiting period [5].

The present study showed (**Table:1**) that among the 878 responders out of total collected 900 samples 354 are the educators that is studying people based on the percentage 40.31% belongs to the age group below 30 years, the mean value of all age people is 20.16. According to above the total responders urban people are higher 360 as of percentage 41% fallowed the remote area 129 (13%), rural area 212 (24.15%)' semi urban area 186 (21.18%). The mean value of all area people is 27.34. In the participants of educators most of them are graduates 256 (29.16).

Table:1 : Socio-Demographic characteristics of the participants:

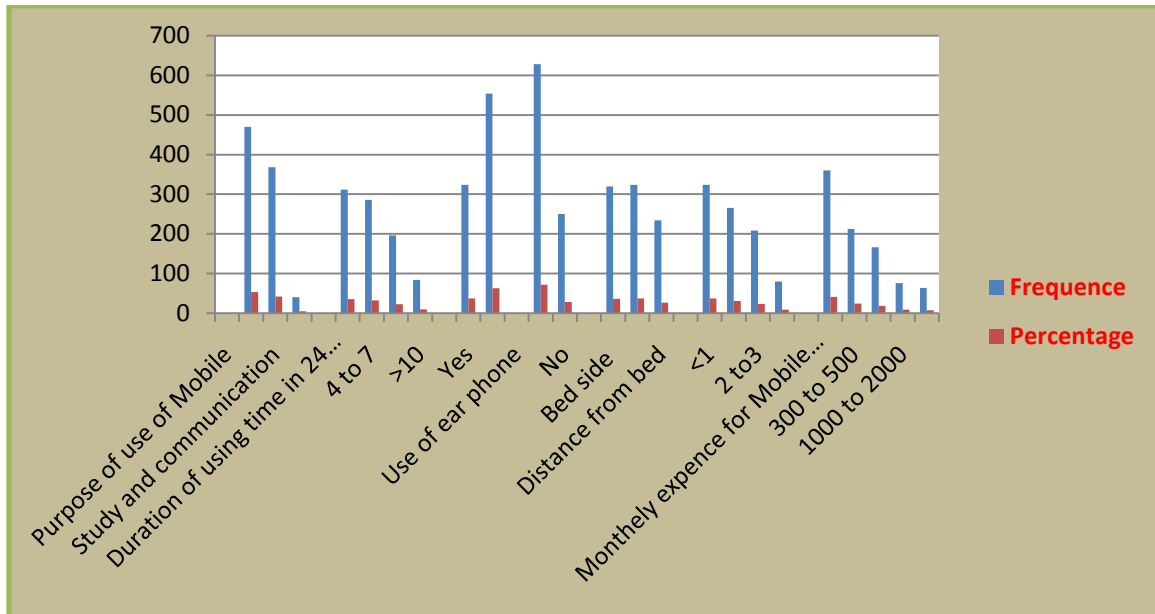
s.no	Characteristics	Frequency	Percentage	Mean value
1	Type of the area			
	Remote area	120	13.67	27.34
	Rural area	212	24.15	
	Semi urban area	186	21.18	
	Urban area	360	41.00	
2	Age group			
	10-20 years	144	16.40	20.16
	20-30 years	210	23.92	
	30-40 years	166	18.91	
	40-50 years	184	20.96	
	50- years above	174	19.82	
3	Gender			
	Male	474	53.99	
	Female	404	46.01	
4	Educational status			
A	Literates			20.16
	Below +2	98	11.16	
	Graduates	256	29.16	
	Others	146	16.63	
B	Illiterates			
	Workers/Labor	224	25.51	
	house holders	154	17.54	
5	Mari tile status			
	Married	456	51.94	
	Un married	422	48.06	
6	Health care condition			
	With illness	262	29.84	
	Without illness	616	70.16	
7	Type of employment			
	Workers	314	35.76	25.74
	Business	198	22.55	
	House wife	228	25.97	
	Agricultural	138	15.72	
8	Living relation			
	Alone	244	27.79	19.47
	Homely	536	61.05	
	Others	98	11.16	
	Total	878	100	

According to the pattern and use of the smart phone (Table:2) out of 878 responders highest responders 470 as percentage (53.53) are use the smart phone for the internal communication with the others and family relations and fallowing the use for studies and current issues and entertainment in the global 368 as 41.91%, 40 as 4.56%. Conceder of the during time of the smart phone highest percentage 35.54% is use the less than 4 hours and lowest percentage is 9.57% use the more than 10 hours, the mean value of during usage is 12.98%. Other electronic device users 324 as percentage 36.90%, along with the smart phone. Today as per my study 3:1 ratio are ear phone users are there, they express ear phone are use to us

without disturbances at the time of phone watching and smoothly information should reach to the ears. According to the WHO more studies are saying ear phones are most effect to the ears and increase cause of ear problems. In this study smart phone is disturbing the sleeping time , most of people are phone has been using before the sleeping. 324 as percentage 36.90% is spent the less than one hour, 266 as30.30% for 1-2 hours, 208 as 30.30% for 2-3 hours, 80 as 9.11% for more than 3 hours. mobile phone location at the time of sleeping most of them are towards the sleeping place like bed side and near the pillow the number is 644 as percentage 73.34% its major cause to the brain by the radiation effect and disturb the proper sleep.

Table: 2 Pattern and use of smart phone and other electronic device:

S.no	Mobile Device use of pattern	Frequency	Percentage
1	Purpose of use of Mobile		
	Communication	470	53.53
	Study and communication	368	
	Entertainment	40	4.56
2	Duration of using time in 24 hours		
	<4	312	35.54
	4 to 7	286	32.57
	7 to 10	196	22.32
	>10	84	9.57
3	Use of other electronic device		
	Yes	324	36.90
	No	554	63.10
4	Use of ear phone		
	Yes	628	71.53
	No	250	28.47
5	Place of mobile in sleeping		
	Bed side	320	36.45
	Near of pillow	324	36.90
	Distance from bed	234	26.65
6	Mobile duration Before sleeping		
	<1	324	36.90
	1 to2	266	30.30
	2 to3	208	30.30
	>3	80	9.11
7	Monthly expense for Mobile (Rupees)		
	<300	360	41.00
	300 to 500	212	24.15
	500 to 1000	166	18.91
	1000 to 2000	76	8.66
	>2000	64	7.29



Graph: 2: Pattern and use of smart phone and other electronic device:

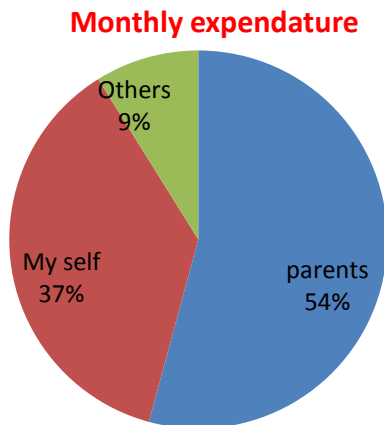


Fig:1: respondents monthly expenses

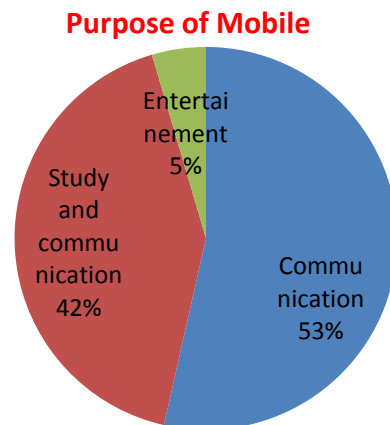


Fig:2: Smart phone purpose of responders

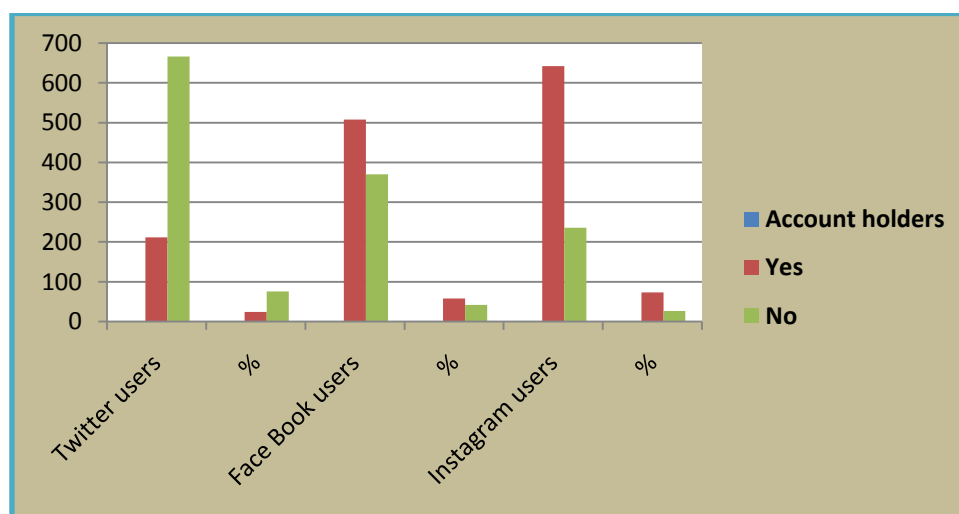
According to above distribution most of the responders are use the smart phone without self work and self finance. Values are indicates (Figure:1) more than half of the responders 476 (54%)are depends upon parents for the money, 324 (37%) is money gain from own and remaining 78 (9%) is money gain from the other sources for the smart phone maintenance. Smart phone use for the purpose (Figure:2), 53% are use for the communication ,42% is for the education and communication, only5% use for the entertainment.

When the social media was awareness than social media users have been increasing day by day [6] [1]. According to my study (Table:3),

73% is use the Instagram out of more than 50% youngsters only use this only for entertainment and communicate with others, in this 55% is use the time between 1-2 hours , only 11% use more than 3 hours. The second largest account holders (57.86%) in face book, in this 33% people are use to this express their opinion on the social media platform for the current status ,highest responders (51.97%) are use it below one hour. The third plot form is twitter only 212 numbers only use this out of 878 the percentage is 24% and they use it for the information share with the society and awareness about the current issues.

Table: 3 Information related to the social media (Twitter, Face Book, Instagram):

s.no	Characteristics	Twitter users	%	Face Book users	%	Instagram users	%
1	Account holders						
	Yes	212	24.15	508	57.86	642	73.12
	No	666	75.85	370	42.14	236	26.88
2	Duration of time (hours)						
	<1	134	63.21	264	51.97	214	33.33
	1 to2	62	29.25	192	37.80	356	55.45
	>3	16	7.55	52	10.24	72	11.21
3	Followers						
	<100	66	31.13	310	61.02	172	26.79
	100 to500	128	60.38	114	22.44	308	47.98
	500 to 1000	14	6.60	74	14.57	94	14.64
	>1000	4	1.89	10	1.97	68	10.59
4	Purpose						
	By giving likes	86	40.57	196	38.58	234	36.45
	Up lode photographs	112	52.83	254	50.00	352	54.83
	Others	14	6.60	58	11.42	56	8.72



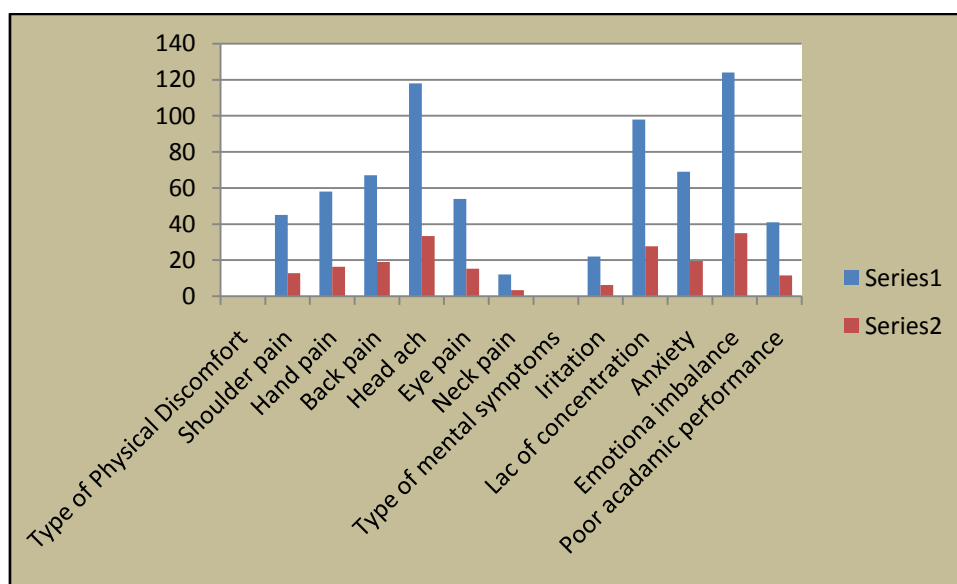
Graph: 3: Information related to the social media (Twitter, Face Book, Instagram):

In this study was showed (Table:4) the frequency and percentage physical and mental hazards consent of eye, Ear, physical and mental discomfort eye problems are higher than the ear problems that is vision problems are 29% out of the total responders, only 12% is identified ear problems. Consent of physical discomfort mostly

common in head ach (33%) and rarely identified neck pain (3%) following to mental symptoms mostly common lack of concentration (27%), rarely identified (6%). Out of 878 responders following the physical and mental discomfort (49%), Eye problems (35%), Ear problems (16%).

Table: 4 Information related physical and mental hazards due to use of smart devices:

S.no	Variable	Frequency	%	Mean value
1	Eye problem (Decrease of vision)			
	Yes	256	29.16	
	No	622	70.84	
2	Ear problem(Decrease of lesion)			
	Yes	112	12.76	
	No	766	87.24	
3	Physical and mental Discomfort			
	Yes	354	40.32	
	No	524	59.68	
4	Type of Physical Discomfort			
	Shoulder pain	45	12.71	18.36
	Hand pain	58	16.38	
	Back pain	67	18.93	
	Head ach	118	33.33	
	Eye pain	54	15.25	
	Neck pain	12	3.39	
5	Type of mental symptoms			
	Irritation	22	6.21	20.62
	Lac of concentration	98	27.68	
	Anxiety	69	19.49	
	Emotion imbalance	124	35.03	
	Poor academic performance	41	11.58	



Graph: 3 physical and mental hazards due to use of smart devices:

Related health problems

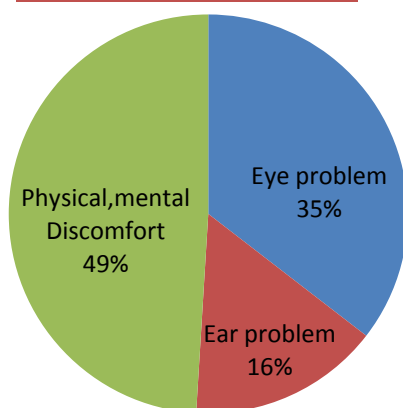


Figure: 2 Distribution of health hazards by the smart phone:

Table: 5 Association between the mobile phone use and duration respondents age period mental and physical hazards:

s.no	Variable	Frequency	Duration of mobile phone (hours)						p value
			<5 Hours		5-8 Hours		>8 Hours		
			N	%	N	%	N	%	
1	Age group in years								
	10-20 years	144	111	77.08	28	19.44	5	3.47	0.003 ^{NS}
	20-30 years	210	169	80.48	35	16.67	6	2.86	
	30-40 years	166	99	59.64	56	33.73	11	6.63	
	40-50 years	184	131	71.20	46	25.00	8	4.35	
	50- years above	174	127	72.99	39	22.41	8	4.60	
	Total	878	637	72.55	204	23.23	38		
2	Physical discomfort								
	Shoulder pain	68	41	60.29	23	33.82	4	5.88	0.672 ^{NS}
	Hand pain	89	53	59.55	27	30.34	9	10.11	0.732 ^{NS}
	Back pain	86	57	66.28	24	27.91	5	5.81	0.544 ^{NS}
	Head ach	257	177	68.87	63	24.51	17	6.61	0.354 ^{NS}
	Eye pain	218	159	72.94	53	24.31	6	2.75	0.432 ^{NS}
	Ear pain	160	121	75.63	32	20.00	7	4.38	0.543 ^{NS}
	Total	878	608	69.24	222	25.28	48	5.4	
3	mental symptoms								
	Irritation	157	119	22.82	29	18.47	9	5.73	0.654 ^{NS}
	Lac of concentration	238	185	34.59	47	19.75	6	2.52	0.565 ^{NS}
	Anxiety	95	72	13.81	18	18.95	5	5.26	0.732 ^{NS}
	Emotion imbalance	246	203	35.76	37	15.04	6	2.44	0.457 ^{NS}
	Poor academics	142	109	20.64	29	20.42	4	2.82	0.322 ^{NS}
	Total	878	688	78.35	160	18.22	30	3.41	
4	Insomnia								
	Yes	383	289	59.38	73	19.06	21	5.48	0.421 ^{NS}
	No	495	356	76.74	121	24.44	18	3.64	0.356 ^{NS}
	Total	878	645	73.46	194	22.09	39	4.44	

Note: N:significant ; NS: no significant

Table: 6 Association between the Ear problems and ear phone use:

Ear problem	(N)	Ear phone effect during the mobile phone				P value
		Yes	%	No	%	
Yes	126	92	73.02	34	26.98	
No	502	378	75.30	124	24.70	0.363 ^{NS}
Total	628	470	74.84	158	25.16	

Table: 7 Association prolong between academic performance and hamper family life:

Variable	During of mobile phone in hours/24								P value
	N	<3	%	3 to 8	%	>8	%		
Effect of Academic performance									
Yes	500	254	50.80	208	41.60	38	7.60		
No	378	221	58.47	148	39.15	9	2.38	0.126 ^{NS}	
Total	878	475	54.10	356	40.55	47	5.35		
Hamper family life									
Yes	369	215	58.27	127	34.42	27	7.32		
No	509	347	68.17	131	25.74	31	6.09	0.465 ^{NS}	
Total	878	562	64.01	258	29.38	58	6.61		

This study associated between time spend of the smart phone, devices and age period which was statistically significant value ($p > 0.05$) and there was no significant association value of the between total usage time of the physical and mental hazards, insomnia ($p < 0.05$) (Table:5), The association problems of the use of the ear phones during the smart phone and other devices statically significant value is ($p > 0.05$) (Table:6) according to above study says most of hazards not significant ($p > 0.05$).

IV. DISCUSSIONS

This pre prepared and oral cross sectional study of the smart phone impact on the human life and health study among the 878 responders out of total collected samples most of them are urban area 41%, following to the rural, semi urban and remote are 24%, 21%, 13% out of them 40% responders are below 30 year educators. Out of total responders male is 53%, female is 46%, literates mean value is 20.16 and most of illiterate phone users are daily labor. As per the marital status, married is 52% and unmarried 48%.

According to this study health hazards by the smart phone and other devices based on age effects p- value is 0.003. We are identified different

types of physical discomforts, following to Shoulder pain 68 (7.74%), The problem is phone or electric device use with hand base point shoulder here bone ligament is effective. Hand pain problems 89 (10.13%), the hand muscle should constrict and not movable mode, so the blood circulation will slow and pain will start. Back pain holders 86 (8.79%), the reason the body is kept in straight mode not moving at the time watch so vertebral movement is not effective by the physical exercise. Head ach problems are identified commonly one third respondents out of total 257 (29.27%), the phone lighting thinking power is doing by the unidirectional. the muscles of eye blood circulation should decrees, so the head ach will start. Eye pain ,ear pain responders are 2\3 out of total . Eyes and ears are using towards the phone its light and sound is cause to the pain. [9] In this study mental symptoms also identified by the following , Irritation 157(17.88%), Lac of concentration 238(27.10%), Anxiety 95(10.82%), Emotional imbalance 246(28.01%), Poor academics 142(16.17%). Insomnia is also identified 383(43.62%).

The second character cause to hazards identified between the ear phone using and duration time the effected frequency is 126(14.35%), The

effect of academic performance frequency is 500(56.94%), and the relation with the family problem is 369(42.02%).

Consider of the expenditure pocket of pocket money for maintenance for the phone 380 responders are below 300Rs following to 212 are 300 to 500 Rs, 166 are 500-1000Rs, only 140 members are spent the 1000-2000 Or more. Phone duration before sleeping 590 respondents are use below 2 hours, very few persons are use it more than 3-4 hours 148. In this study there was no significant prolong use of the smart phone with tension, depression anxiety, lac of communication out of work. Youssef et al found that mobile phone use was significantly associated with vertigo, tinnitus and dizziness [5], Pamukcu et al found that women significantly complained more often of headache, vertigo or dizziness, fatigue, forgetfulness and tension, anxiety than men [8]. These findings contradict with our study.

V. SUGGESTIONS

- Smart phones will use limiting time which is use to us.
- Awareness programs should need about side effects of human health.
- Counseling programs should need the how family bonding should disturb about the misuse of social media.
- Original smart phone/internet importance should introduce in the each person education system.
- Awareness to the student what is the present condition, how to use in the future life by the smart net work.
- Parents and teachers should take care how to use the mobile at least in their locations
- **Ethical approval:** This study was approved by the institutional ethics committee.

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REFERENCES:

- [1]. Widayat RM, Aji JS, Kurniawan C. A systematic review of social media and government in the social science discipline. *J Contemp Governance Public Policy*. 2023;4(1):59–74. Available from: <https://journal.ppishk.org/index.php/jcgpp/article/view/100>.
- [2]. Chen HWJ, Marzo RR, Sapa NH, Ahmad A, Anuar H, Baobaid MF, et al. Trends in health communication: social media needs and quality of life among older adults in Malaysia. *Healthcare*. 2023;11:1455. <https://doi.org/10.3390/healthcare11101455>.
- [3]. Fauzi, R., Saaidin, N. I., Ibrahim, N. S., & Abdullah, S. S. Effect of Social Media Addiction on Academic Performance among Nursing Students. *The Malaysian Journal of Nursing (MJN)*, 2021, 13(1): 3-9.
- [4]. Carton, S. *Web 2.0: What Is It Really?*. ClickZ Network Press, 2014.
- [5]. Youssef M, Mansour T, Abdelsalam HA. The relationship between mobile phone use and ear Problems among medical students. *Biomed Res*. 2016;27(4):1251-4.
- [6]. Keles, B., McCrae, N., Grealish, A. A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth*, 2020, 25(1): 79-93.
- [7]. Lenhart D, Madden A. *Social Networking and Students' Academic Performance: the Role of Attention Deficit, Predictors of Behavior and Academic Competence*, International Conference on African Development Issues Press, 2017.
- [8]. Kucer N, Pamukcu T. Self-reported symptoms associated with exposure to electromagnetic fields: a questionnaire study. *Electromagnet Biol Med*. 2013;3:1-4.
- [9]. Qasim T, Obeidat M, Al-Sharairi S. The effect of smart phones on human health relative to user's addiction: a study on a wide range of audiences in Jordan. *Intl J Med Health Sci*. 2017;11(5):304-7
- [10]. [10]. Gyeltshen T, Dema D. *How Cell phone Changed Bhutanese Society*. Available at: <https://www.academia.edu/15601976/How>

- _have_Cell_Phones_changed_Bhutanese_Society. Accessed on 3 December 2018.
- [11]. Haug S, Castro RP, Kwon M, Filler A, Kowatsch T, Schaub MP. Smartphone use and smartphone addiction among young people in Switzerland. *J Behav Addict.* 2015;4(4):299-307.
- [12]. Alhassan RK, Aberese-Ako M, Doegah PT, Immurana M, Dalaba MA, Man- yeh AK, et al. COVID-19 vaccine hesitancy among the adult population in Ghana: evidence from a pre-vaccination rollout survey. *Trop Med Health.* 2021;49(1):1–13. <https://doi.org/10.1186/s41182-021-00357-5>.
- [13]. Marzo RR, Chen HWJ, Abid K, Chauhan S, Kaggwa MM, Essar MY, et al. Adapted digital health literacy and health information seeking behavior among lower income groups in Malaysia during the COVID-19 pandemic. *Front Public Health.* 2022;10. Available from: <https://www.frontiersin.org/articles/10.3389/fpubh.2022.998272>. Cited 2022 Sep 26.
- [14]. Marzo RR, Shrestha R, Sapkota B, Acharya S, Shrestha N, Pokharel M, et al. Perception towards vaccine effectiveness in controlling COVID-19 spread in rural and urban communities: a global survey. *Front Public Health.* 2022;10. Available from: <https://www.frontiersin.org/articles/10.3389/fpubh.2022.958668>. Cited 2023 Feb 1.
- [15]. Bouchrika I. Global social media research summary: 2023 penetration & impact. 2022. Available from: <https://research.com/education/global-social-media-research>. Cited 2023 Feb 1.
- [16]. Abdalqader M, Baobaid MF, Ghazi HF, Hasan TN, Mohammed MF, Abdal- razak HA, et al. The Malaysian Movement Control Order (MCO) impact and its relationship with practices towards Coronavirus disease 2019 (COVID-19) among a private university students in Selangor. *Malays J Public Health Med.* 2020;20(2):49–55. <https://doi.org/10.37268/mjphm/vol.20/no.2/art.523>.
- [17]. Najimudeen M, Chen HWJ, Jamaluddin NA, Myint MH, Marzo RR. Mon- keypox in pregnancy: susceptibility, maternal and fetal outcomes, and one health concept. *Int J MCH AIDS.* 2022;11(2):e594. <https://doi.org/10.21106/ijma.594>.
- [18]. Chen HWJ, Marzo RR, Tang HC, Mawazi SM, Essar MY. One mutation away, the potential zoonotic threat—neocov, planetary health impacts and the call for sustainability. *J Public Health Res.* 2022;10(1). <https://doi.org/10.4081/jphr.2021.2941>.
- [19]. Stockdale LA, Coyne SM. Bored and online: reasons for using social media, problematic social networking site use, and behavioral outcomes across the transition from adolescence to emerging adulthood. *J Adolesc.* 2020;79:173–83. <https://doi.org/10.1016/j.adolescence.2020.01.010>
- [20]. Goes M, Lopes M, Oliveira H, Fonseca C, João M. Quality-of-life profile of the elderly residing in a very low population density rural area. In: Review. 2019. Available from: <https://www.researchsquare.com/article/rs-7170/v1>. Cited 2023 Feb 1.
- [21]. Lindwall M, Berg AI, Bjälkebring P, Buratti S, Hansson I, Hassing L, et al. Psychological health in the retirement transition: rationale and first findings in the HEalth, Ageing and Retirement Transitions in Sweden (HEARTS) study. *Front Psychol.* 2017;8. Available from: <https://www.frontiersin.org/articles/10.3389/fpsyg.2017.01634>. Cited 2023 Feb 1.
- [22]. Shields M, Dimov S, Kavanagh A, Milner A, Spittal MJ, King TL. How do employment conditions and psychosocial workplace exposures impact the mental health of young workers? A systematic review. *Soc Psychiatry Psychiatr Epidemiol.* 2021;56(7):1147–60. <https://doi.org/10.1007/s00127-021-02077-x>.
- [23]. Zechmann A, Paul KI. Why do individuals suffer during unemployment? Analyzing the role of deprived psychological needs in a six-wave longitudinal study. *J Occup Health Psychol.* 2019;24:641–61. <https://doi.org/10.1037/ocp0000154.supp>