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Original Article

Assessment of the Level of Knowledge and Attitude on Effects of Mobile Phones and Internet Usage among Mothers of Adolescents

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Abstract

Mobile phones have become an almost essential part of daily life. The Internet is a global linking of computers that allows information transfer. Internet is being integrated as part of our every day's life. Nearly, 243 million adolescents live in India as per the UNICEF report. *Statement of the problem*: A study to assess the level of knowledge and attitude on effects of mobile phones and internet usage among mothers of adolescents at selected community, Kancheepuram District. *Objectives:* To assess and correlate the level of knowledge and attitude on effects of mobile phones and internet usage among mothers of adolescents and To associate the level of knowledge and attitude on effects of mobile phones and internet usage among mothers of adolescents with their demographic variables. *Materials and Methods:* Research approach was quantitative and research design was descriptive research design. 100 samples who fulfilled the inclusion criteria were selected by non-probability convenient sampling technique. The tool used for the data collection comprises of 3 sections: Section A - Demographic variables; Section B -A structured questionnaire on knowledge to assess the effects of mobile phones and internet usage among the mothers of adolescents, formulated by the investigators. It comprises of 15 knowledge questionnaires and Section C - A structured 5 point Likert scale statements to assess the level of attitude on effects of mobile phones and internet usage among the mothers of adolescents formulated by the investigators. Data collected were analyzed by using descriptive and inferential statistics. *Results:* The analysis reveals that 37 (37%) mothers of adolescents have inadequate knowledge; 54 (54%) have moderate knowledge; 9 (9%) have adequate knowledge. The level of attitude among mothers of adolescents reveals that 10 (10%) have poor attitude; 72 (72%) have fair attitude; 18 (18%) have good attitude. The analysis depicts that there is no co – relation between level of knowledge and attitude on effects of mobile phones and internet usage among mothers of adolescents. There is significant association found between the "Educational Qualification and Occupation of Mother" with knowledge and there was no significant association between the other demographic variables. The analysis reveals that the demographic variables are not significant with level of attitude and hence there is no significant association with demographic variables. *Conclusion:* The study findings concludes that majority mothers of adolescents 54 (54%) have moderate knowledge. The majority mothers of adolescents 72 (72%) have fair attitude. The nurse administrator should plan to improve the academic performance and to prevent physical, psychological and social problems in adolescents.

Keywords: Mobile Phones; Internet Usage and Mothers of Adolescents.

Introduction

We are living in an era of technology with a full blown technical revolution. There is a plethora of latest electrical gadgets hitting the market everyday and science and technology has reached heights, we could barely imagine in the last few decades. Mobile phones have become an almost essential part of daily life since their rapid growth in popularity the late 1990's [1].

Mobile phones are considered as an important mode of communication. In the current state, they are viewed as the most convenient and accessible method to contact people. Conversely, although mobile phones are very beneficial to the society and in everyday life of an individual, there are a number of disadvantages to the use of mobile phones [2].

The Internet is a global linking of computers that allows information transfer. The internet was established in early 1990's by the US Department of defense, primarily for military purpose. Since then, the continual improvement of the internet technology has provided an extraordinary level of public accessibility to a wide range of forms of communication, e.g. intra-organizational email, data storage, management and transfer, social websites like face book, text messaging such as twitter, and so forth [3].

The amount of time we are spending in front of our mobile screens is more than ever and little do we realize that psychologically and socially. As internet access have become more common [4]. The traditional agents of socialization are families and school. The mobile phone has the power to undermine the school authority and weaken their control over students as well as affects their level of academic performance. Surprisingly research on influence of mobile phones on our schools today has not been given much attention [5].

According to majority of research done so far, it was discovered that use of mobile phones in schools is problematic. Mobile phones gives room to blending students, roles with others roles thus distracting and disrupting students' academic world [6]. Today, 20% of people in the world are adolescents, constituting 1.2 billion people worldwide. Nearly, 243 million adolescents live in India as per the UNICEF report [7].

International Journal of Innovative Research Science, Engineering Technology, (2013) conducted a study that focused on exploring the pattern of mobile phones usage among teens and young adults in Chennai. It also attempted to examine the extent of addictive behavior towards the usage of mobile phones. Questionnaire survey method was used to elicit the responses. Higher secondary students and first year students were considered as population and random sampling technique were used to select the sample of 201 students. The study revealed that all of the young people are at risk of developing addictive pattern of behavior and had poor academic performance due to their extent usage of mobile phones [8].

Thus the investigators wants to do research on assessing the knowledge and attitude on effects on mobile phones and internet usage among mothers of adolescents in Maraimalainagar.

Materials and Methods

Research approach was quantitative and research design was descriptive research design.100 samples who fulfilled the inclusion criteria were selected by non-probability convenient sampling technique. The tool used for the data collection comprises of 3 sections: Section A - Demographic variables; Section B - A structured questionnaire on knowledge to assess the effects of mobile phones and internet usage among the mothers of adolescents, formulated by the investigators. It comprises of 15 knowledge questionnaires with total score 15 and Section C - A structured 5 point Likert scale statements to assess the level of attitude on effects of mobile phones and internet usage among the mothers of adolescents formulated by the investigators. It comprises of 15 statements with the score of 75. The positive statements are scored as follow 5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree, 1 for strongly disagree. The negative statements are scored in reverse order.

Data collected were analyzed by using descriptive and inferential statistics. The content of the tools were established on the basis of opinions of nursing experts. Suggestions were incorporated in the tool. In order to assess the reliability of the questionnaire, the test-retest method was done on the sample in the village. On statistical analysis the reliability of the tool was found to be 0.8.

Ethical considerations

The study was approved by the dissertation committee of SRM College of Nursing, Kattankulathur, Kancheepuram District. Permission was obtained from the Panchayat Officer and informed consent was obtained from each participant for the study before starting data collection. Assurance was given to the subjects that anonymity of each individual would be maintained and they are free to withdraw from the study at any time. The investigator explained the objectives and methods of data collection. The data collection was done during the day time. Self-introduction about the investigator and details about the study was explained to the samples and their consent was obtained. The confidentiality about the data and finding were assured to the participants.

Data collected were analyzed by using descriptive and inferential statistics.

Results

The Table 1 depicts the frequency and percentage distribution of mothers of adolescents**.** Regarding the age group of children majority of them 41 (41%) are in the age group (16-19) years. Considering the gender 51 (51%) are females. Considering the educational status of the adolescents 34 (34%) are in (6-7 standard). The educational qualification of the mother 32 (32%) had high school education. Considering the occupation of mother 27 (27%) are Home makers. Regarding the family income 26 (26%) are earning in between Rs. 7878-11876. Considering the duration of children using the mobile gadgets/ day 36 (36%) are using 3 Hours / day. Considering the exposure to information regarding effects of mobile phones and internet use among mothers 48 (48%) from friends and relatives. Most of the adolescents 37 (37%) are operating smart phones. Considering the child's development of interest and learning to

Table 1: Frequency and percentage distribution of the demographic variables of mothers of adolescents N=100

S. No.	Demographic Variables	Class	No. of respondents	Percentage (%)
1	Age group of children	10 -12 Years	29	29
		13 - 15 Years	30	30
		16 -19 Years	41	41
2	Gender of Adolescents	Male	49	49
		Female	51	51
3	Education of the Adolescents	6 -7 Standard	34	34
		8 - 9 Standard	20	20
		10 -12 Standard	22	22
		UG - I Year	24	24
4	Educational qualification of the mother	No formal education	11	11
		Primary	13	13
		High School	32	32
		Higher secondary	22	22
		Graduate	16	16
		Postgraduate and Above	6	6
5	Occupation of Mother	Home Maker	27	27
		Un skilled worker	12	12
		Skilled Worker	23	23
		Non professional	15	15
		Professional	23	23
6	Family income per month	Rs. 1590 - Rs. 4726	11	11
		Rs. 4727 - Rs. 7877	17	17
		Rs. 7878 - Rs. 11876	26	26
		Rs. 11876 - Rs. 15753	25	25
		Rs. 15754 - Rs. 31506	18	18
		> Rs. 31507	3	3
7	Duration of children using the mobile gadgets/day	1 Hour	20	20
		2 Hours	27	27
		3 Hours	36	36
		4 Hours & above	17	17
8	Exposure to information regarding effects of mobile phones and internet use among mothers of adolescents	Mass Media	25	25
		Health care professional	27	27
		Friends and relatives	48	48
9	The typeof gadget the child operates	Computer	26	26
		Laptop	19	19
		IPod	18	18
		Smart phones	37	37
10	The child developed interest and learned to use mobile gadgets and internet	Self	37	37
		From Parents	19	19
		From Elder Siblings	30	30
		From Peers/Others	14	14
11	The purpose of the child to use mobile/internet	Playing games	36	36
		Watching and listening music	31	31
		Watch Movies	18	18
		For Educational Purpose	15	15

The Table 1 above represents the frequency and percentage distribution of mothers of adolescents.

The Table 2 (a) analysis reveals that 37 (37%) mothers of adolescents have inadequate knowledge; 54 (54%) mothers of adolescents have moderate knowledge; 9 (9%) mothers of adolescents have adequate knowledge.

The Table 2 (b) analysis reveals that 10 (10%) mothers of adolescents have poor attitude; 72 (72%) mothers of adolescents have fair attitude; 18 (18%) mothers of adolescents have good attitude.

The Table 3 reveals that P-value of Pearson's correlation co-efficient is not significant (since the P-value is greater than 0.05) and hence there is no significant correlation between level of knowledge and attitude on effects of mobile phone and internet usage among mothers of adolescents.

Table 2(a): Level of Knowledge on effects mobile phones and internet among mothers of adolescents.

N=100

S. No.	Knowledge Level	No. of Mothers	Percentage (%)
1	Inadequate Knowledge	37	37
2	Moderate Knowledge	54	54
3	Adequate Knowledge	9	9

Table 2(b): Level of attitude on effects of mobile phones and internet usage among mothers of adolescents.

N=100

S. No.	Attitude Level	No. of Mothers	Percentage (%)
1	Poor attitude	10	10
2	Fair attitude	72	72
3	Good attitude	18	18

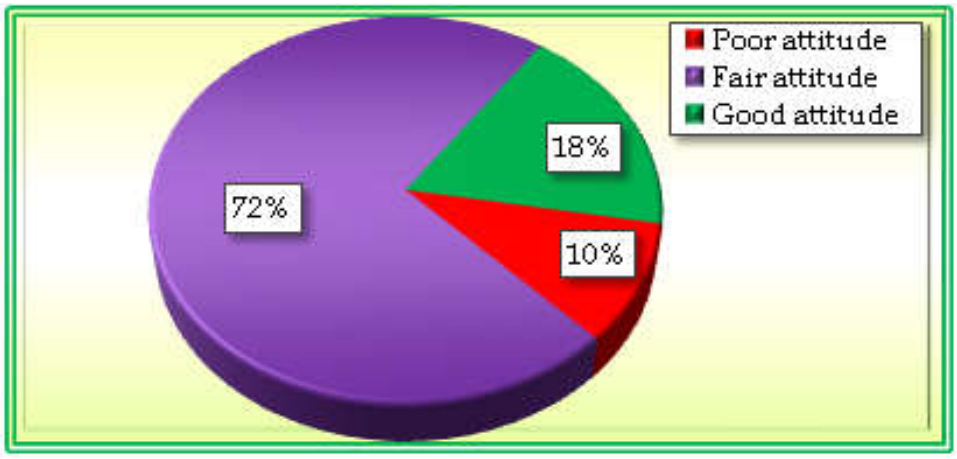

Fig.1: Percentage distribution of level of attitude on effects of mobile phones and internet usage among mothers of adolescents.

Table 3: Correlation between the level of knowledge and attitude on effects of mobile phones and internet usage among mothers of adolescents.

N= 100

	Level	Mean	SD	Pearson's Correlation Co-efficient	P-value
1	Knowledge	8.57	2.105	-0.130	0.196
2	Attitude	48.92	7.679		

Table 4: Shows association between the level of knowledge of mothers of adolescents with their demographic variables. N= 100

Demographic Variable	Class	Knowledge Level			Chi-Square Value	DF	P-Value
		Inadequate Knowledge	Moderate Knowledge	Adequate Knowledge			
Age group of children	10 -12 Years	9	17	3	3.282	4	0.512
	13 - 15 Years	9	19	2			
	16 -19 Years	19	18	4			
Gender of Adolescents	Male	14	28	7	5.003	2	0.082
	Female	23	26	2			
Education of the Adolescents	6 -7 Standard	14	16	4	2.203	6	0.900
	8 - 9 Standard	6	12	2			
	10 -12 Standard	7	13	2			
	UG - I Year	10	13	1			
Educational Qualification of the Mother	No formal education	4	6	1	29.696	10	0.001**
	Primary	3	10	0			
	High School	14	16	2			
	Higher secondary	9	12	1			
	Graduate	7	8	1			
	Postgraduate and Above	0	2	4			
Occupation of Mother	Home Maker	8	16	3	21.374	8	0.006**
	Un skilled worker	5	7	0			
	Skilled Worker	14	9	0			
	Non professional	7	8	0			
	Professional	3	14	6			
Family income per month	Rs. 1590 - Rs. 4726	5	5	1	9.420	10	0.493
	Rs. 4727 - Rs. 7877	8	8	1			
	Rs. 7878 - Rs. 11876	6	19	1			
	Rs. 11876 - Rs. 15753	11	11	3			
	Rs. 15754 - Rs. 31506	7	9	2			
	> Rs. 31507	0	2	1			
Duration of children using the mobile gadgets/day	1 Hour	7	11	2	1.360	6	0.968
	2 Hours	11	15	1			
	3 Hours	13	19	4			
	4 Hours & above	6	9	2			
Exposure to information regarding effects of mobile phones and internet use among mothers of adolescents	Mass Media	10	14	1	1.803	4	0.772
	Health care professional	11	14	2			
	Friends and relatives	16	26	6			
The type of gadget the child operates	Computer	8	17	1	8.996	6	0.174
	Laptop	9	9	1			
	IPod	7	11	0			
	Smart phones	13	17	7			
The child developed interest and learned to use mobile gadgets and internet	Self	13	18	6	6.182	6	0.403
	From Parents	5	13	1			
	From Elder Siblings	12	16	2			
	From Peers/Others	7	7	0			
The purpose of the child to use mobile/internet	Playing games	11	21	4	2.640	6	0.852
	Watching and listening music/movie	14	15	2			
	Watch Movies	6	11	1			
	For Educational Purpose	6	7	2			

**-Significant at 1% level *-Significant at 5% level

The above table 4 reveals that P-values corresponding to the demographic variables "Educational Qualification of the Mother and Occupation of Mother" are significant at 1% level (since the P-value is lesser than 0.01) and hence there is highly significant association between the "Educational Qualification of the Mother and Occupation of Mother" and "Knowledge level of Mothers".

All other P-values corresponding to the demographic variables are not significant (since all the values are greater than 0.05) and hence that there is no significant association between the other demographic variables.

Table 5: Shows association between the level of attitude of mothers of adolescents with thier demographic variables N = 100

S. No.	Demographic Variable	Class	Knowledge Level			Chi-Square Value	DF	P-Value
			Poor attitude	Fair attitude	Good attitude			
1	Age group of children	10 -12 Years	3	21	5	5.040	4	0.283
		13 - 15 Years	4	24	2			
		16 -19 Years	3	27	11			
2	Gender of Adolescents	Male	5	38	6	2.183	2	0.336
		Female	5	34	12			
3	Education of the Adolescents	6 -7 Standard	6	19	9	7.962	6	0.241
		8 - 9 Standard	2	15	3			
		10 -12 Standard	1	19	2			
		UG - I Year	1	19	4			
4	Educational qualification of the mother	No formal education	3	7	1	13.883	10	0.178
		Primary	2	7	4			
		High School	1	25	6			
		Higher secondary	3	13	6			
		Graduate	1	14	1			
		Postgraduate and Above	0	6	0			
5	Occupation of Mother	Home Maker	4	15	8	7.816	8	0.452
		Un skilled worker	1	8	3			
		Skilled Worker	1	18	4			
		Non professional	2	12	1			
		Professional	2	19	2			
6	Family income per month	Rs. 1590 - Rs. 4726	3	6	2	10.593	10	0.390
		Rs. 4727 - Rs. 7877	1	15	1			
		Rs. 7878 - Rs. 11876	2	20	4			
		Rs. 11876 - Rs. 15753	2	17	6			
		Rs. 15754 - Rs. 31506	1	12	5			
		> Rs. 31507	1	2	0			
7	Duration of children using the mobile gadgets/day	1 Hour	3	11	6	5.104	6	0.531
		2 Hours	2	21	4			
		3 Hours	4	28	4			
		4 Hours & above	1	12	4			
8	Exposure to information regarding effects of mobile phones and internet use among mothers of adolescents	Mass Media	4	19	2	3.394	4	0.494
		Health care professional	2	20	5			
		Friends and relatives	4	33	11			
9	The type of gadget the child operates	Computer	2	20	4	9.583	6	0.143
		Laptop	2	10	7			
		IPod	3	15	0			
		Smart phones	3	27	7			
10	The child developed interest and learned to use mobile gadgets and internet	Self	4	25	8	5.425	6	0.491
		From Parents	2	17	0			
		From Elder Siblings	3	20	7			
		From Peers/Others	1	10	3			
11	The purpose of the child to use mobile/internet	Playing games	3	25	8	5.608	6	0.469
		Watching and listening music/movie	5	19	7			
		Watch Movies	1	16	1			
		For Educational Purpose	1	12	2			

**-Significant at 1% level *-Significant at 5% level

The above table 5 reveals that P-values corresponding to the demographic variables are not significant (since all the values are greater than 0.05) and hence that there is no significant association between the demographic variables and Attitude level of Mothers.

use mobile gadgets and internet 37 (37%) are by self and 37 (37%) are from peers/others. Considering the purpose of the child to use mobile/ internet 36 (36%) are using for playing games.

Discussion

The analysis reveals that 37 (37%) mothers of adolescents have inadequate knowledge; 54 (54%) have moderate knowledge; 9 (9%) have adequate knowledge. The level of attitude among mothers of adolescents reveals that 10 (10%) have poor attitude; 72 (72%) have fair attitude; 18 (18%) have good attitude. The analysis depicts that there is no co – relation between level of knowledge and attitude on effects of mobile phones and internet usage among mothers of adolescents. There is significant association found between the "Educational Qualification and Occupation of Mother" with knowledge and there was no significant association between the other demographic variables. The analysis reveals that the demographic variables are not significantwith level of attitude and hence there is no significant association with demographic variables.

Conclusion

The study findings concludes that majority mothers of adolescents 54 (54%) have moderate knowledge. The majority mothers of adolescents 72 (72%) have fair attitude. The nurse administrator should plan to improve the academic performance and to prevent physical, psychological and social problems in adolescents.

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