



A Case Series Study of Effectiveness of Homoeopathic Medicines in Management of Smartphone Addiction in 15 – 30 Years of Age Group

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ABSTRACT

Background: Smartphone addiction (SA) refers to spending long hours using a smartphone, thus neglecting many other activities that an individual must complete. Adverse effects of SA include wasting time, neglecting other activities and people, and lethargy. SA in general refers to individuals' overuse of a smartphone and their inability to control its usage and preoccupation with it. Usage becomes compulsory, which results in adverse effects on various aspects of one's life: health, physical, psychological, social, and familial. ¹

Long-term use of smartphones can cause physical, mental and behavioral problems such as eye problems, unhealthy eating habits, decrease in academic performance, decrease in attention and concentration, communication and adaptation problems, development of addictive behavior, low self-esteem and suicidal tendencies ²

Problematic smartphone uses and or addiction is defined as a form of behaviour characterized by the compulsive use of a smartphone that results in various forms of physical, psychological, or social harm. ³

Objective: 1. to know the efficacy of homoeopathic medicines in the cases of addiction of smartphone by using SAS-SV pre and post assessment test. 2. To identify the commonest indicated homoeopathic medicine in cases of addiction of smartphone. **Method:** The case series study includes 45 diagnosed cases of smartphone addiction using SAS-SV Scale; medicine was prescribed on the basis of totality of symptoms.

Result: In our study, by using SAS-SV scale we assessed the pre and post scores of the patient by which we calculated the t- value using paired t-test and as our calculated value of t (10.8) was greater than the critical t value (2.02) at 5% level of significance. Hence, our study hypothesis was accepted. **Conclusion:** According to our study, indicated Homoeopathic medicines showed significant improvement in symptoms related to Smartphone addiction in 95.5% of population; but none of them were completely de-addicted according to SAS-SV scale scoring criteria in individuals between 15-30 years of age when prescribed on the basis of totality of symptoms. This shows that overall response of Homoeopathic medicines for Smartphone addiction were encouraging with evidence of improvement in symptoms of Smartphone addiction, which varied from patient to patient.

Keywords: Totality of symptoms, Homoeopathic medicine, smartphone addiction, SAS – SV (Smartphone addiction scale – short version).

INTRODUCTION

Smart phones are basically invented to reduce our time and work, we can operate many gadgets and functions at a time without carrying them separately. Camera, games, newspapers, Watch, different software, music and video players, TV and many things in single compact device. This increases our dependence on Smartphone and ultimately it may lead to dependence disorder and addictions. ⁴

Smartphone addiction (SA) refers to spending long hours using a smartphone, thus neglecting many other activities that an individual must complete. Adverse effects of SA include wasting time, neglecting other activities and people, and lethargy. SA in general refers to individuals' overuse of a smartphone and their inability to control its usage and preoccupation with it. Usage becomes compulsory, which results in adverse effects on various aspects of one's life: health, physical, psychological, social, and familial. ¹

Long-term use of smartphones can cause physical, mental and behavioral problems such as eye problems, unhealthy eating habits, decrease in academic performance, decrease in attention and concentration, communication and adaptation problems, development of addictive behavior, low self-esteem and suicidal tendencies (Nayak, 2018, Wacks and Weinstein, 2021). In addition, smartphone overuse has been associated with sleep problems such as reduced sleep quality, daytime fatigue, delayed falling asleep and shorter sleep time. ²

METHOD

Study design for this research is CASE SERIES. Study duration is 6 months, Study setting: At Motiwala (National) Homoeopathic Medical College & Hospital OPD, Camps in surrounding area. Sample size 45 cases, Sample technique Convenience Sampling, Inclusion criteria Age group of 15 to 30 years. Both sexes. Patients who score 34 or above in SAS-SV. Patients who are willing to give consent for the study Exclusion Criteria Patients who are below 15 years and above 30 years. Pregnant and Lactating women. Patients who scored 22 or below in SAS-SV. Patients suffering from gross pathological disease.

SMARTPHONE ADDICTION SCALE – SHORT VERSION (SAS - SV)

Smartphone addiction was assessed using the Smartphone Addiction Scale short version (SAS-SV). This is the short version of the scale developed by **Kwon M, Kim DJ, Cho H, Yang S.**; with internal consistency and concurrent validity. This is 10-item self-report instrument with 6 points Likert scale. SAS-SV addresses the following areas, daily life disturbance, withdrawal, cyberspace-oriented relationship, overuse, and tolerance. It has good validity and reliability for the assessment of smartphone addiction. It takes approximately 5-10 minutes to complete the questionnaire. As suggested by Kwon et al, for males a cut off value of 31 and for females cut off value of 33 was taken.

Table no. 1: Smartphone addiction scale – Short version (SAS-SV)

Item	Strongly disagree	Disagree	Weakly disagree	Weakly agree	Agree	Strongly agree
Missing planned work due to smartphone use	1	2	3	4	5	6
Having a hard time concentrating in class, while doing assignments, or while working due to smartphone use	1	2	3	4	5	6
Feeling pain in the breast or at the back of the neck while using a smartphone	1	2	3	4	5	6
Will not be able to stand not having a smartphone	1	2	3	4	5	6
Feeling impatient and fretful when I am not holding my smartphone	1	2	3	4	5	6
Having my smartphone in my mind even when I am not using it	1	2	3	4	5	6
I will never give up using my smartphone even when my daily life is already greatly affected by it	1	2	3	4	5	6
Constantly checking my smartphone so as not to miss conversations between other people on twitter or facebook	1	2	3	4	5	6
Using my smartphone longer than I had intended	1	2	3	4	5	6
The people around me tell me that I use my smartphone too much	1	2	3	4	5	6

The (SAS-SV) was determined to have good reliability and validity, and used as a Assessment tool.

A score of **22** or below indicated No addiction. and a score of **34** or above indicated a potential addiction. ⁶

DATA COLLETION

A screening (Google questionnaire) of 94 patients was conducted by using the Smart Phone Addiction Scale - Short Version (SAS-SV) at Motiwala (National) Homoeopathic Medical College, Nashik, out of which 74 participants were found with smartphone addiction and all of them fulfilled the criteria from which 45 patients gave consent for the study & according to inclusion and exclusion criteria the patients were selected. The symptoms of the patients were recorded & diagnosis was confirmed. Smartphone addiction score were noted down subsequently in SAS – SV assessment. After seeing case record of patients, the totality of symptom was framed. The totality of symptoms subjected to repertorisation to identify the indicated medicine. The medicine was administered to the patient following the rules of potency and dose & repetition. Follow – up assessment was done after every 15 days and 6 follow-ups were taken. And after 6 follow-ups SAS-SV scale score was analyzed and result were drawn.

RESULT

In our study, by using SAS-SV scale we assessed the pre and post scores of the patient by which we calculated the t - value using paired t-test and as our calculated value of t (10.8) was greater than the critical t value (2.02) at 5% level of significance. Hence, our study hypothesis was accepted.

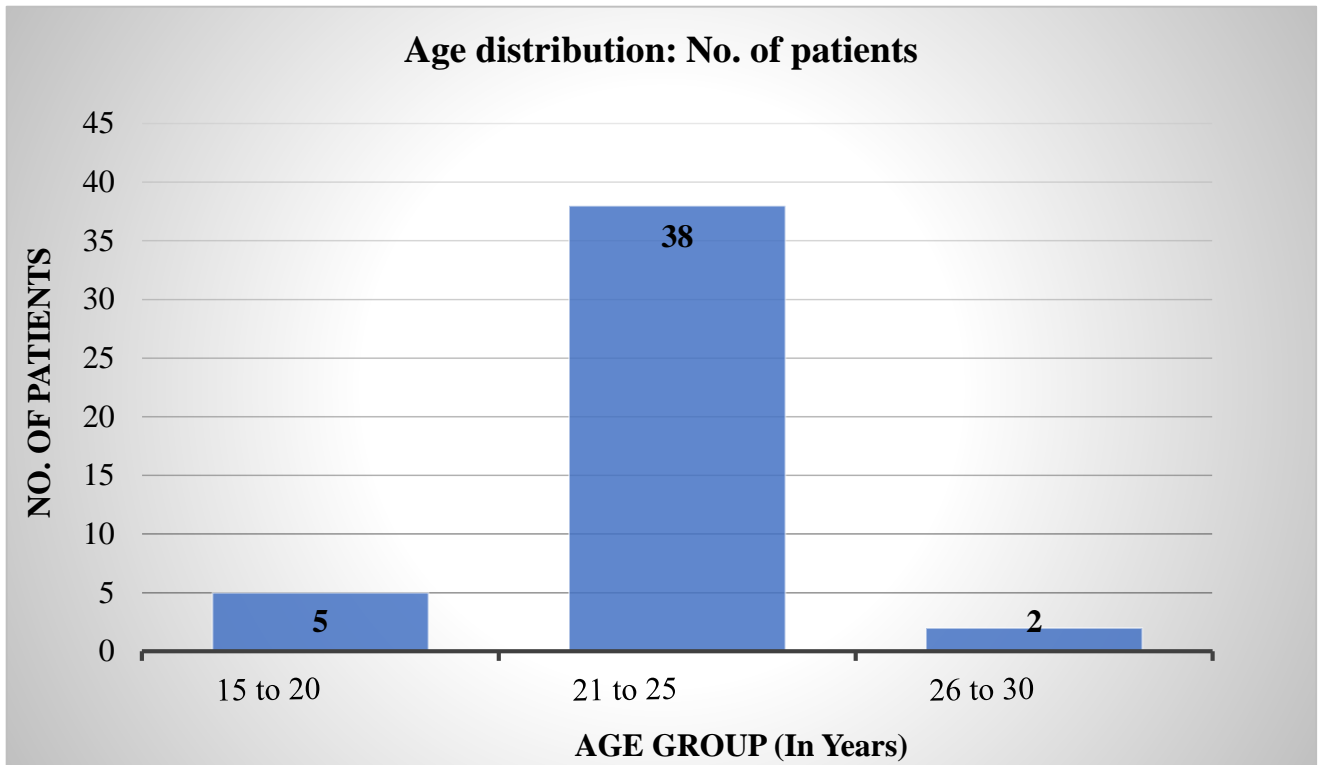


Figure 01: Bar chart representing age- distribution as per our inclusion criteria

Table No. 02: Age distribution in smartphone addiction as per our inclusion criteria

SR NO.	AGE GROUP (In Years)	NO. OF PATIENTS
1.	15 to 20	05
2.	21 to 25	38
3.	26 to 30	02

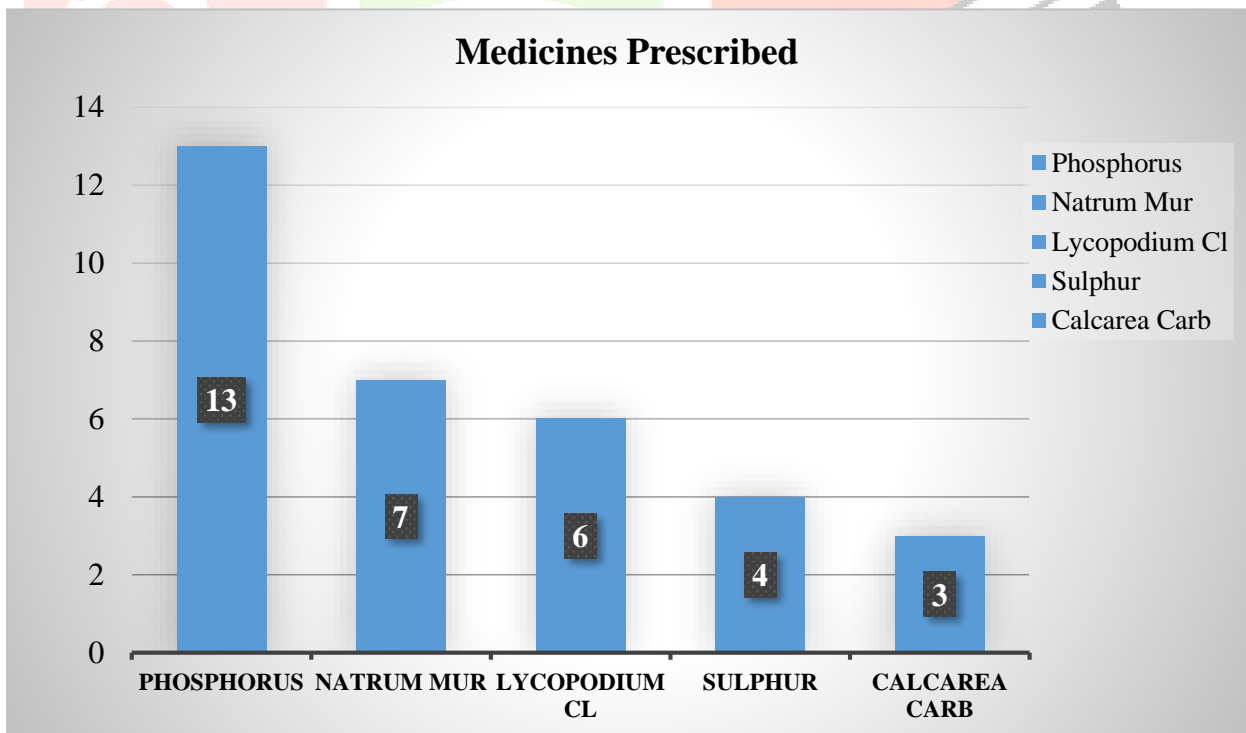


Figure 02: Bar graph representing percentage of commonest medicines prescribed to the patients

Table No. 03: Commonest Medicines Prescribed in cases of smartphone addiction

SR NO.	MEDICINE PRESCRIBED	NO. OF PATIENTS
1.	Phosphorus	13
2.	Natrum Mur	7
3.	Lycopodium Cl	6
4.	Sulphur	4
5.	Calcarea Carb	3

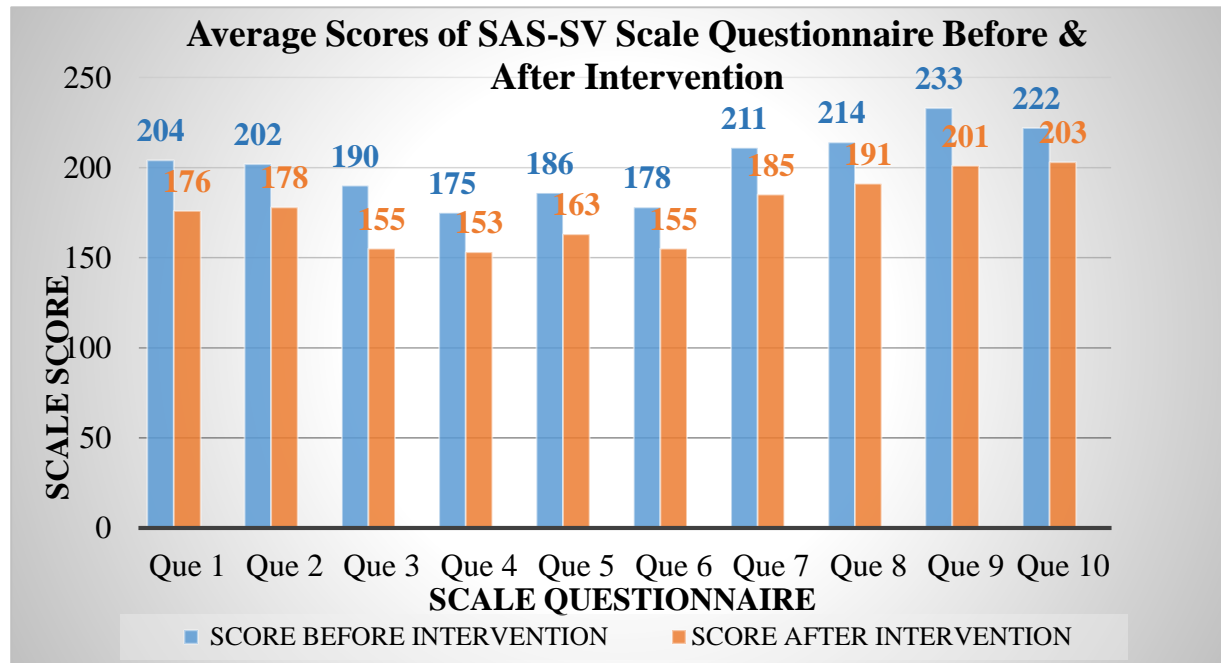


Figure 03: Bar graph representing average scores of SAS-SV Scale Questionnaires before & after intervention in Smartphone addiction

Table No. 04: Average scores of SAS-SV Scale Questionnaires before & after intervention in Smartphone addiction

SR. NO.	SCALE QUESTIONNAIRE	SCALE SCORE	
		BEFORE	AFTER
1.	Missing planned work due to smartphone use	204	176
2.	Having a hard time concentrating in class, while doing assignments, or while working due to smartphone use	202	178
3.	Feeling pain in the wrists or at the back of the neck while using a smartphone	190	155
4.	Will not be able to stand not having a smartphone	175	153
5.	Feeling impatient and fretful when I am not holding my smartphone	186	163
6.	Having my smartphone in my mind even when I am not using it	178	155
7.	I will never give up using my smartphone even when my daily life is already greatly affected by it	211	185
8.	Constantly checking my smartphone so as not to miss conversations between other people on Twitter or Facebook	214	191
9.	Using my smartphone longer than I had intended	233	201
10.	The people around me tell me that I use my smartphone too much	222	203

MEDICINE PRESCRIBED

SR. NO	COMMONEST PRESCRIBED	REMEDY	NO. OF PATIENTS	TOTAL PATIENTS
1.	Phosphorous		13	45
2.	Natrum Muriaticum		07	45
3.	Lycopodium clavatum		06	45
4.	Sulphur		04	45

STATISTICAL METHOD:

In our study, by using SAS-SV scale we assessed the pre and post scores of the patient by which we calculated the t- value using paired t-test and as our calculated value of t (10.8) was greater than the critical t value (2.02) at 5% level of significance. Hence, our study hypothesis was accepted.

DISSCUSSION

Smartphone addiction can be defined as the excessive and compulsive use of smartphones that negatively impacts one's daily life, relationships, and well-being. It is often caused by a combination of factors, including the easy accessibility of smartphones, mental health conditions like anxiety or depression, a need for constant stimulation or validation, and difficulty to managing stress. This study was a step towards profiling of homoeopathic medicines for Smartphone Addiction. A screening (Google questionnaire) of 94 patients was conducted by using the Smart Phone Addiction Scale - Short Version (SAS-SV) at Motiwala (National) Homoeopathic Medical College, Nashik, out of which 74 participants were found with smartphone addiction and all of them fulfilled the criteria from which 45 patients gave consent for the study.

In our SAS-SV Scale study, we observed the significant reduction in post assessment test when compared to pre assessment. The most significant reduction was observed in question 3 i.e. feeling pain in wrist or at the back of the neck while using smartphone. And in question 9 i.e. using my smartphone longer than I had intended. And observed significant reduction in other symptoms also. By which we came to the conclusion that Homoeopathic medicines showed significant improvement in symptoms related to smartphone addiction but none of them were de-addicted according to SAS-SV scale scoring criteria.

As per the result, there were no patients who completely got de-addicted from Smartphone addiction, could be because of maintaining cause. As we are living in the era of digitalization, use of smartphone is became very basic need for living. Hence, only reduction in symptoms related to Smartphone addiction is observed.

Most commonly prescribed homoeopathic remedies were: Phosphorus (29%), Natrum Mur (16%), Lyco Cl (13%), and Sulphur (09%).

Further studies for clinical verification of these medicines on Smartphone Addiction can be undertaken.

CONCLUSION

According to our study, indicated Homoeopathic medicines showed significant improvement in symptoms related to Smartphone addiction in 95.5% of population; but none of them were completely de-addicted according to SAS-SV scale scoring criteria in individuals between 15-30 years of age when prescribed on the basis of totality of symptoms. This shows that overall response of Homoeopathic medicines for Smartphone addiction were encouraging with evidence of improvement in symptoms of Smartphone addiction, which varied from patient to patient.

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