

Overuse/Misuse of Smartphones and Family Disintegration

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Abstract— Technology, with all its paraphernalia to facilitate and empower humans in every possible manner, is in turn taking its toll on human life today. Assessment of our surroundings present its newest little weapon called smart phones and they are the for-runners in the digital technology's benign ambush on our lives. Smartphones are amazing as they feature both multipurpose and multitasking activities. Our friends, family, and colleagues seem to expect to be able to contact us at any time, whether across town or across the globe. They are 'available' and accessible at any time in class, while walking, driving, eating, and to the extent that they get in the way of our relationships, making it impossible for us to sincerely devote our attention to the present moment. We become irretrievably wrapped up in our digital lives, prioritizing the virtual world over anything else especially our families.

These varied app based smartphones have become the perpetrator of communication breakdown within families: couples are breaking up, the parent-child bond is destabilizing and generation-gap is widening, leading to utter deterioration of social values. Relationship is hard to maintain when the phone keeps distracting us with beeping alerts, notifications and email reminders. Hence, the present study is an attempt to explore how smartphones are creating communication breach resulting in disintegration of familial ties. The situation is alarming as over-use of smartphones is not only hazardous to health but has taken the form of addiction and we might have to pay heavily if we do not take preventive measures in the coming times. The paper has also been furnished with some hands-on recommendations and corrective measures to curb this behavioral dependence syndrome and stop its eroding impact on our most reliable support system; our families.

Keywords- *smartphone, virtual world, addiction, relations, family*

I. INTRODUCTION

"Smartphones are creating a huge ripple in the pond of human behaviour and it is important that, as smartphones develop, we continue to study the way they affect behaviour, emotions and emotional attachments"[1]

Scrolling down through the Facebook posts, a few of them surely serve quite an unavoidable food for thought: one shows how sleep takes a back seat and gives in to the nocturnal pings on the smartphone, another shows how everyone nowadays is busy catching the moment, happy or sad, competing to share it first, and letting our smartphone screens bar our sensitivities respond accordingly, one goes on to say that not being on Whatsapp is the most shameful thing today and another alarmingly tells our phones are keeping us well connected to our virtual entities but cut off from real people and so on. And interestingly, the positive responses seem suffocating the negative ones. And we are talking of our own India which according to reports will overtake USA in smartphones by 2016, with more than 200 million users. This is the India that we have read and seen valuing and advocating the value of that vital unit of society that lays the foundation stone of our character i.e. family. One can wonder what connection smartphones and family might have, as to take this article to be taken seriously. Following the offline/online news will tell all: with all the aid smartphones are getting so fast equipped with, there are some areas of our private lives they are making dangerous inroads and irretrievable encroachments which are breaking our families apart and widening the already alarming generation gap incessantly. And they are not a few, different mobile application markets offer thousands of them offering all-purpose service: healthcare, public services, education, business, security, TV Channels, social networking, alternative

interaction, shopping, betting, gaming, entertaining, chatting, dating, spying, mapping, GPSing etc. one can literally live their life out of their tiny room.

Countries like China, USA, South Korea which are already facing the dilemma over how to tackle the overt dominance of this 'necessary evil' called the smartphone. India is not far behind, either in the statistics of overuse or its hazardous impacts. In fact, like any other case of substance abuse, such overuse has all the symptoms of an addiction in a user, affecting his/her personal and social lifestyle in the same manner, posing the same unwarranted predicament, or may be more perniciously because it does not still medically/psychologically come into the sphere of substance/process abuse.

The WHO has used the word 'dependence' for such addiction to any substance like alcohol, drug, smoking, or behaviour/process like gambling, spending, shopping, eating, and sexual activity. Moreover, Merriam Webster dictionary states that it is a, "persistent compulsive use of a substance known by the user to be physically, psychologically, or socially harmful. Addiction is a persistent, obsessive dependence on a behavior or substance [2]." The Medical Dictionary credits "mood-altering behaviors or activities" to such abuse/overuse [3]. Significantly, in their article, Sanjeev Davey and Anuradha Davey list mobile phone addiction in the latter category i.e., behavioural addiction, and truly so [4].

Therefore, it naturally goes that the precarious dependence on the smartphone, one gadget with all the required features, is akin to walking on a double-edged sword or risky like any other substance use; if taken for utilitarian purposes, they can rid us of many hitches in life, but if used excessively, they exacerbate every aspect of it. A random survey taking in oral

as well as written responses of individuals; adult students, professionals and our neighboring parents told us that almost everyone realizes their failure to stop giving in to the magnetic pull of their smartphones all the time.

II. REVIEW OF LITERATURE

Although India has a comparatively poor record as far as extensive research in this field goes, quite a few studies have been conducted and published abroad on how smartphone overuse is proving to be a menace which people, irrespective of the criteria to categorize them: age, status, gender, profession, community, region etc., are vulnerable to. They have proved the deterioration of a person's mental, physical, and social life. While the Indian Government dreams of a 'digital India', here's is an insight into what it is endangered with also. Various terms have been coined and attributed to this phenomenon of smartphone addiction viz: 'Smartphonatics', 'Digital dementia', 'Blackberry/digital thumb', 'Cellphone elbow', 'Net/Popcorn brain', 'ringxiety', 'Nomophobia', 'Whatsappatitis', 'Selfitis'. Experts have claimed that "Over-use of smartphones and game devices hampers the balanced development of the brain," [6]. "Nomophobia- fear of being without your smartphone- affects 40% of the population" in America and Britain [7], 73% reporting panicked, 14% desperate, 7% sick and only 6% relieved. Boston University researchers "warn that displacing play-based interactions with mobile media entertainment could interfere with toddlers' social-emotional development" [8]. 'I Forgot My Phone', a short film by Actress Charlene deGuzman features a girl who "forgets her phone and discovers that smartphones are preventing people from living in the moment and are killing face-to-face interactions" [9]. Taiwan, in an attempt to curb the debilitating effects of mobile technology, has reportedly banned kids, "an impressionable and vulnerable age" from overusing mobiles through a controversial law [10]. In an article, Kelsey Dallas has come up with four "unexpected health risks of smartphone use" under subheadings like 'Texting tweaks the spine', '3G networks endanger kids', 'Regular use can cause carpal tunnel or 'cellphone elbow', and 'Staring at screens damages the eyes'[11]. Opticians warn that smartphones addiction can increase the "risk of eye damage" while Taiwan scientists also confirm the overuse of smartphone could lead to cataract. Children's sleep patterns and duration gets adversely affected due to proximity to smartphones. In fact, Iain McGilchrist, a psychiatrist, believes that kids who overuse their smartphones display "borderline autistic behavior" [12]. Cheol Park and Ye Rang Park confirm "problems with mental development such as emotional instability, depression, Attention Deficit Hyperactivity Disorder(ADHD), anger, and lack of attention,... problems in physical development such as impairments in visual/hearing senses, obesity, body imbalance same as game addiction of children[13]. Regarding its effect on adolescents, Deborah Brauser asserts: "The greater the overuse of smartphones, the greater the risk for severe psychopathologies in adolescents"[14]. Muhammad Sarwar & Tariq Rahim Soomro point out "disrespectful behaviour, privacy issues, impact on culture, distraction at work & at education Institutes" negative sides of the Smartphone's [15]. Cris Rowan associates "an increase of physical, psychological and behavior disorders" to it [16]. Uichin Lee et al link

"overuse risks (e.g., causing negative impacts on an individual's personal and social ac-tivities)" to college students [17]. Jayanti P Acharya et al observed that along with physical health hazards, urge to respond in an instant basis" makes students unable "to concentrate on studies and other important aspects of their daily lives [...]" "performance related anxiety, especially...in exam" and renders them "prone to develop friction in their social relations" [18].

Like any other recognised 'dependence syndrome' case, this all-in-one tool of technology has so overpowered our lives that it is gnawing at the very core foundations of our relations. Family, the closest one, bears the crippling brunt. Technology is now driving our life values and smartphones are actually changing social relationships. [4]. The upward social mobility owing to the availability of scopes for a better life style has already engendered disintegration of families in India but the way smartphone technology has speeded up this process, even nuclear families seem to be virtually falling apart. Studies, surveys and news items give away the alarming scenario we all are, cross generationally engulfed in. Disastrous misunderstandings between couples, the ever growing parents-children gulf and the resultant devious havoc it plays in a family is not a rare phenomenon today. A new study reveals how overuse of smartphones, especially, during midnight hours can destroy intimacy in relationships, leading to break-ups, cheating and divorce in modern days [19]. Such misuse/overuse of technology "is fracturing its very foundation and causing a disintegration of core values that used to hold families together" [16]. According to the findings of a research report by the Cologne Institute for Economic Research, Mobile phones have changed the ways in which we keep up our relationships with family, spouses and close friends. Multiple communication features [...] available on our finger tips, makes us less responsive to the immediate environment [20].

III. OBJECTIVES OF THE STUDY

- A. To explore the extent of impairing effects of smartphones on family integration.
- B. To suggest remedial measures for shielding families from breaking up due to misuse/overuse of smartphones.

IV. HYPOTHESIS

- A. Smartphones have overtaken prerequisites of wellness.
- B. The use of smartphones has become an addiction for users.
- C. Virtual world has overtaken the real world in families.
- D. Overuse of smartphones has created communication gap among close relatives.
- E. Preventive measures have not been taken at any level.

V. METHODOLOGY

The study was carried out among the family members namely, Children, Parents and Couples in Chandigarh. Primary data was collected from 90 Children below 18 years, 50 parents (mother or father) and 40 couples (20 male, 20 female) through Random sampling method.

Major results: Table 1-6.

Table 1: Smartphone usage preferences

Total= 180

S. N.	Usage	Children	Parents	Couples	
				M	F
1	Social Networking*	80 (88.88)	38 (76.00)	18 (90.00)	16 (80.00)
2.	Official-emailing	27 (30.00)	25 (50.00)	17 (85.00)	15 (75.00)
3.	Miscellaneous	30 (33.33)	11 (22.00)	12 (60.00)	12 (60.00)

Misc: (Games, Shopping, downloading, various Apps usage etc.

*From the above table, it is inferred that social interaction, which is vital to a healthy social life has been transferred to an equipment rather than the more productive physical social milieu which is visible in all the categories.

Table 2: Change in behavioural Patterns towards Family Disintegration

Total: 180

S. N.	Usage	Children	Parents	Couples	
				M	F
1	Change in behavioural Patterns	58 (64.44)	26 (52.00)	17 (85.00)	13 (65.00)
2.	Inappropriate timings	43 (47.77)	25 (50.00)	17 (85.00)	14 (70.00)
3.	Preference as better companion	37 (41.11)	16 (32.00)	11 (55.00)	08 (40.00)

The above table shows that smartphones have made tempting inroads in the course of people's lives and disturbed the life style patterns. The most alarming factor seen in the above table portends catastrophic effects on the concept of a 'family', as the couples show a tendency to fall prey to the charms of a smartphone, rather than that of a partner.

Table 3: Smartphones emerging as carrier of addictive symptoms

Total = 180

S.N.	Hours spent on Smartphone	Children	Parents	Couples	
				M	F
1.	Upto 6 hrs	59 (65.00)	44 (88.00)	07 (35.00)	11 (55.00)
2.	6-12 hrs*	26 (28.00)	06 (12.00)	13 (65.00)	09 (45.00)
3.	More than 12 hrs	05 (05.55)	--	--	--

The figures in the above table are self-explanatory. Children, despite the parental restrictions and institutional bans on mobiles use in classrooms, are overusing smartphones.

Couples are the worst affected which proves smartphones overuse is eating into the quality time which otherwise family members are supposed to spend with each other.

Table 4: Adverse Effects of Smartphones towards Family Disintegration

Total: 180

S.N.	Effect of Smartphones	Children	Parents	Couples	
				M	F
1.	Feeling of addiction	39 (43.33)	09 (18.00)	08 (40.00)	04 (20.00)
2.	Neglecting near-dear ones	40 (44.44)	39 (78.00)	13 (65.00)	08 (40.00)
3.	Avoid relatives	35 (38.88)	28 (56.00)	16 (80.00)	12 (60.00)
4.	Higher participation in virtual world	41 (45.00)	33 (66.00)	17 (85.00)	14 (70.00)
5.	Detrimental to family integration	34 (37.77)	48 (96.00)	13 (65.00)	16 (80.00)

This table presents an alarming scenario of reduced intra family communication and people becoming addicted consciously or unconsciously, disclosing evidences of compulsion, tolerance and neglect of other healthy alternative of pleasure.

Table 5: Adverse effect of Smartphones towards family integration

Total = 180

S.N.	Adverse effect on family integration	Children	Parents	Couples	
				M	F
1.	Bond with Parents	42 (46.00)	--	--	--
2.	Bond with partner	--	--	12 (60.00)	10 (50.00)
3.	Bond with children	--	17 (34.00)	--	--

The table results hint at the realization dawning upon family members regarding the smartphones interfering with family ties, leading to indifferent attitude.

Table 6: Efforts towards Family Integration

Total = 180

S.N.	Preventive measure	Children	Parents	Couples	
				M	F
1.	Measures applied	41 (45.00)	42 (84.00)	15 (75.00)	17(85.00)
2.	Success rate	38 (42.00)	28 (56.00)	11 (55.00)	14(70.00)

As seen above, families have started realizing the threat of smartphones as a family breaker and have begun taking

measures for mitigating its disastrous effects, as visible in all the above categories.

VI. DISCUSSIONS

Digital proximity substitutes the real intimacy. And this is what actually pulls the bond within family menacingly apart. Smartphones are "serving more than just a utilitarian purpose" [21]. As for couples, it takes togetherness, trust and talks to keep them going. Smartphones have developed into that extended member of the family who is just indispensable so much so that it becomes an alternative to our actual family members. That reduces the contentment ratio in any relationship. Within or without the household, children or parents seem to continuously carry their own cocooned virtual world in their multifunctional smartphones where they stay connected, getting instant feedbacks and working upon them, oblivious to the disapproval of those physically present around them for such constant disruption and interference. This technology, offering everything instant on the palate, has made us incapacitated in our cognitive thinking and sense of judgement. Feeding on such excessive media diet we fall prey to what Dr. Wendy Walsh "love attention deficit disorder" [22]. Digital strategist Dino Baskovic tells "It's also very easy to get swept up into a fantasy life in social media which may make it tempting for individuals to stray from their committed romantic relationship" [22]. Options of privacy come handy for betrayal. Going by the legal experts in India, the rate of divorce cases involving smartphones as a major reason or tool, are constantly on the rise. Almost everybody today will testify that they have been there, seen it; smartphones have created disturbing ripples in private relationships.

However, it is the ever-sensitive equation of the parent-child bond that presents a more alarming picture with the addition of smartphones as an issue of contention. Smartphone addiction, parents' or kids', does affect their relationship. If the father/mother/both seek to reach their phones in the time which they would have spent with the kids for any kind of interaction in the absence of this tempting gadget, kids are forced to feel side-lined and un-cared. Sadly, they either internalize the resentment with all its resultant ailments or be reactive to people and situations and violate their own as well as others lives. An article in the journal Pediatrics confirms that "Highly absorbed caregivers often responded harshly to child misbehavior" as they can't tolerate their attention seeking interference hampering their posts/tweets, 'likes' 'shares/retweets', 'tags', 'hashtags' 'selfies' etc and the author, Dr. Jenny Radesky finds "a lot of instances where there was very little interaction, harsh interaction or negative interaction between the adults and children" [23]. Alternatively, they also coax the parents into buying them the phone too and start slipping away and into the world of fancy digital lives, reintroducing the world through the digital screen. When incongruity of the two worlds strike, destabilization of personality starts and this psychoactive gadget seems easier to grapple than the disorder of the real world. Martha Roberts "a self-confessed smartphone addict" call herself an "ashamed" "cyber zombie" who has "succumbed to ... 'digital rudeness' and is pained to see the deterioration of her bond with her son due to this obsession [24]. She calls people like her as "great conversation-killers, pavement- and buggy-tipper....the bête noir of

shoppers,...change nappies cack-handed...bedtime-story wreckers" and quotes Nicholas Carr, author of *The Shallows*, that "the technology has turned us into 'lab rats constantly pressing levers to get tiny pellets of social or intellectual nourishment'[24]. She has knowingly but compulsively given in to this technology's hold on her, at the cost of missing out on her son's growth process. We are not too far away. Sometimes, parents use the smartphones as 'shut-up toys' in lieu of the vacuum they leave by their absence for whatever avoidable or unavoidable reason. Instead of in-person care "touchscreen becomes a babysitter" [8]. Park deciphers it further: "family's effect on children's smart phone addiction is also substantial. Parental variables that affect smart phone addiction are parents' education, age, income, whether parents are working together, raising attitude, attitudes towards smart phone, and addiction tendency" [13]. Nevertheless, it remains detrimental if a gadget becomes the bartering tool for parents. As Rowen says, "technology is killing what we love the most...connection with other human beings...integral to that developing child's sense of security and safety.[...] Family over-use of technology is ...gravely affecting early attachment formation" [16]. Tuning in the digital friends and out the parents or vice versa is a sure sign of dysfunctional families where real life priorities are ignored and an urge to be informed and updated online are preferred.

Besides utility, popularity, affordable cost and competitive environment also make children 'want' and parents give a smartphone to keep up with the trend. Add obsession to that and it entails all the devastating effects we have already mentioned. The resultant physically, emotionally, and mentally skewed personality cannot afford to be at peace at home and problematic issues start ensuing, leading to strained or broken relations. The not so old news of a 13 year old Indian girl and another teenage boy committing suicide on being forbidden by parents to use a social media platform left people stunned and brooding. The British psychiatrist, Dr David Veal attributes such suicidal tendencies to "depression characterised by Body Dysmorphic Disorder and compulsive selfie-taking" [25] According to him, 25 Negative Effects of Technology., isolation, obesity, depression, stress, increased levels of violence, and a lack of sexual boundaries await the smartphone-obsessed [26]. "Higher scores of narcissism (excessive interest or admiration of oneself and one's physical appearance) and levels of neuroticism (negative personality traits including moodiness, jealousy, envy and loneliness) have been linked to smartphone addiction" [27]; reasons enough for alienation among family members. Moreover, parents, following the natural tendency to control, turn spies and become offensively inquisitive, driving the kids further away. Frankly, they are, as Ian Hyman says "natives in the land of technology," and are writing "new rules for interacting with people socially...defining what will be considered normal in the near future" [26].

VII. SUGGESTIONS

The glaring question remains as to how to tackle this new obsession, curb its overuse and teach ourselves what amount of use is reasonable. As technology will continue its unavoidable intrusion for better or worse, it will take efforts from all of us as parents, counsellors, teachers, and NGOs to get a reality check and plug off before going off the radar.

Some suitable re-structuring of communication and relationship patterns and check-points is required. As Smartphones, like internet can be 'library, friend, prison as well as comforter, facilitator and seducer' [24], we need to be skilful to handle them smartly as we do with road safety norms, proper diet, wellness programs etc. Following are some of the recommendations based on which can be beneficial for preventing this obsession from turning into an epidemic disease:

For Families:

- Take a smartphone addiction test and if found positive, take it as a wake-up call.
- Parents should themselves be role models for using smartphones judiciously, to avoid being branded hypocrite or negligent.
- Indoctrinate the social mannerisms from early childhood.
- To keep the inter-generational ties flexibly strong, older generation should also be suitably accommodated in the loop of app-based interaction and may be games too.
- Families should develop a home-made phone policy as a self-regulatory mechanism to avoid overuse of smartphones. It can be any innovative idea to draw each other's' attention towards being there with the real people around like the 'be present' box made by a man with step-by-step directions viz"1. Insert Phone. 2. Close Lid." and the cover of the box says, "3. Be Present." to reverse the adversely changed dynamics at the dinner table [28].
- Parents should find ways to indulge in physically interactive activities like indoor/outdoor games, household work, outings and with their children to strengthen their emotional stability and sense of security.
- 'Responsive' parenting provides a win-win situation for both, parents and children.
- They need to be strict regarding the usage limit by the children.
- They should keep vigil over the smartphone usage by their children through surveillance equipment and in-built applications.
- There should be phone-free hours in families. Parents must ensure that the ensuing stress and anxiety are outdone by the special moments cherished each day.
- Form a family pact to set a digital curfew or take a "digital sabbatical", may be smaller and in that duration, resist the urge to check the phone and even guilt-trip those who disobey [6]. "You'll be surprised and pleased to rediscover the pleasures of being in control of your attention," Carr says [29].
- Apps like BreakFree and Instant enable calculating and bringing down smartphone addiction.
- Usage can be diverted to strengthen the sense of belonging between scattered kith and kin through forming family-only groups on Whatsapp or any other messenger.
- If circumstances necessitate leaving a child alone with the phone, get applications like Zoodles or

Famigo and restrict his/her use of apps by creating a separate profile for the kid [30]

For Couples:

- The values like integrity, loyalty and mutual trust must be taken as set boundaries as not to transgress the sanctity of the relation.
- Explore the reasons/triggers (boredom, quarrel with partner, loneliness, distance relationship etc) for the compulsive deviation to virtual reality and change round and start taking corrective measures. In fact, the very culprit (smartphone) can be the saviour facilitating "a digital service" (like Between or TwoCup) that helps foster togetherness [31]. Or take up a hobby together.
- Transparency can reduce the scope of suspicion and resentment among couples for which smartphone prove to be an apt platform.
- The actual joy of the real partner's company must not be bargained for the instant gratification of a digital connection.
- Due measures should be taken to foster as much togetherness as possible to nurture the relation.

For Educational Institutions:

- Every opening session should orient the students and parents on smartphones.
- Such institutions should be phone-free zones. Entertainment places should also follow suit.
- Smartphone addicted children should be counselled for avoiding over-use of smartphones. In fact, dynamics of parent and children relation can be tracked during parent teacher meets to steer it in the right direction. Schools in Bangalore, in association with NIMHANS have started to seek expert help, "to train their student counsellors and to hold awareness camps for students, as well as to screen and rehabilitate the obsessive users amongst them" [32]
- Relevant case-studies and research findings should be disseminated among the students through an effective media; expert lectures, performance arts or interactive sessions with the former victims of such addiction.
- Research on such concerns should be promoted, funded, and the findings should be taken into account in deciding the corrective measures.

Besides, as amusing as it may sound but administration should recognise this potential threat and start working on issuing statutory warnings on the lines of that of smoking and drinking. With support from NGOs, Welfare Organisations and good Samaritans of society, it needs to initiate remedial programs for victims of smartphone addiction like the Internet started by the Uday Foundation in Delhi SHUT Clinic run by NIMHANS and another Internet De-Addiction Centre operated by a psychiatrist, Dr JPS Bhatia in Amritsar. The centres provide counselling and medical help to the victims of Internet Addiction Disorder (IAD) and involves participation of the parents and self-help group to make them realize and

counteract the egregious mistake of replacing the real people with virtual ones.

Family ties are very delicate which are based on shared trust and joys, not on any law and no technology should be allowed to turn 'human beings' into mere 'human bodies' incapable of a harmonious existence, otherwise what the Scientists predicted recently will come true: "world will be ruled by humans who have turned into cyborgs" [33]. A recent newspaper articles features a few examples from Chandigarh where a no-mobile-use time slot has been actually set up by individuals and parents as well. It shows that after an initial anxiety, weaning themselves off their hand-sets has been proved more of an addition in comfort than a shortcoming. That speaks a lot about the fast gripping tentacles of such technology and our urgent need to overcome its onslaught. Smartphone overuse needs to be urgently addressed within the agenda of academics, so that before the spiraling craze of such devices gets out of control appropriate steps can be taken. Formation of suitable mechanism for sensitizing people on this issue should be included in the priority list of a family, society, educational institute, workplace or government.

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