Telecommunication Challenges in India: Social Mental Health Perspective 2018

Article by Rajendra P. Joshi Alias Parijat[1], Abhijit S. Powar[2]
[1]*Associate Professor, Csiber, Univeristy Road Kolhapur, India*
[2]*Consultant General and Laproscopic Surgeon, Siddhagiri Hospital and Research Centre, India*
E-mail: newrajendraparijat@gmail.com

Abstract

Telecommunication in India has revolutionised the process of living through disruption and then distraction and at certain times distortion. Individual consumerism has led to social and group behavioural changes. So much so that social mental health indicators need to be checked. Cell phone has become an extended organ for humans around. From faith -belief-values frame to technology driven frame of ecology and economics a paradigm shifts and shuffle is being observed. How and why of this needs to be focussed and addressed for better possible outcomes through telecommunication events.

Introduction

India is the second largest cell phone consumer market behind China. Globalization is the new mantra. In this age, it is very difficult not to have technology. But with technology, come certain hazards. The only way to beat these is correct and timely information and again, better technology [4]. The telecom sector in India has traversed a very long path from government monopoly to the sector opening to the private participation. A lot of Indian business houses and foreign multinational companies participated and help India in bringing up this sector to the current state, wherein it has impacted every aspect of our lives across all states in India. It has helped India as a key enabler to the rapid growth and transforms various industries of doing business / service operations, which has eventually helped in the overall socio-economic development [2]. But the outcome of this giant entering into the social fabric need to be reassessed. Even the World Health Organization (WHO) (2011) after reviewing the studies published from year 2000 to 31st May 2011 classified the radio frequency electromagnetic radiations/field emitted from wireless phone under group 2 B-carcinogen category. Due to this fact numbers of countries have developed health based precautionary guidelines for exposure of EMF from cell phone towers including India [5].

Social behavior, method channel and process of communication has changed significantly. The main reason has been telecommunication network spread across the country with technological features. It has been observed personally by researcher team as well as data that mobile telephony is increasing in leaps and bounds. TRAI (Telecom Regulatory Authority of India) the official government body is trying to regulate a lot but the efforts and actual control differs from reality [1]. Reduction in voice calls, increase in what's-up app chat, selective video calls or VPN (Virtual Private Network). The nature and gesture of communication is changed drastically. Its internet-based information, addiction which motivates to continuously look into the phone and chat or explore. Drastically social behavior has changed and rationality, traditional value faith is treated as outdated or over expectation. Privacy, transparency norms and understanding has changed. Informal natural behavior is changed to conditioned and logical give and take situations. New groups, networks which have purpose-based objectives to be together is increasing day by day.
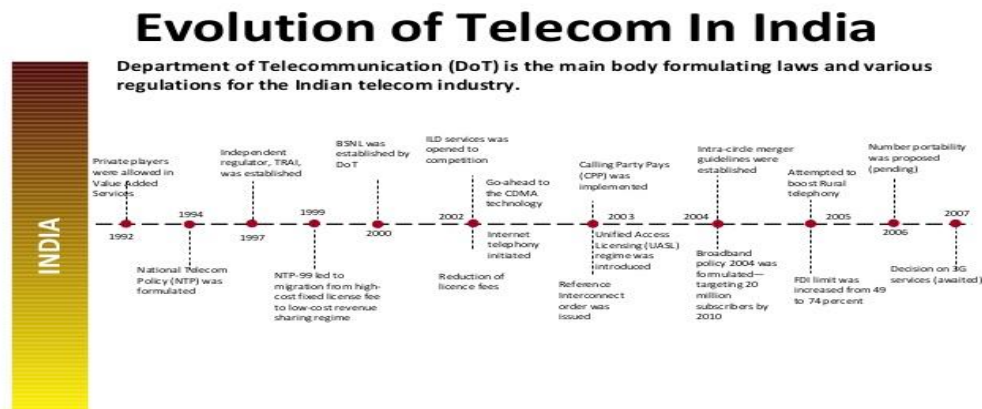
Materials and methods

The method for this research paper has been traditional literature survey and especially modern internet tools with media news reports. Literature survey though informative the dimensional data to know the severity of this problem was not found to support Indian national perspective. So TRAI reports were considered as the authentic database and various reports were the source. Internet supported data was scrolled and scanned but the perspective point of view was difficult to get so few articles are listed.

Personal professional experience and exposure to this phenomenal change as human being and researcher motivated both of us as we are working professionals in management and medicine in our region.

Hypothesis

1. Telecommunication industry in India has become the driver of social change.
2. Tele protocols and technology driven habits are replacing traditional standards of privacy and transparency.
3. Large population is exposed to technology guided behavior in transactions using mathematical intelligence.
4. Indian population is shifting towards algorithmic behavior. *

Discussion

Evolution of Telecom In India

Department of Telecommunication (DoT) is the main body formulating laws and various regulations for the Indian telecom industry.

Telco	Net Additions	Dec-17	Jan-18	%Change
Airtel	1,502,755	290,113,079	291,615,834	1%
RCOM	-21,104,993	33,166,349	12,061,356	-64%
Vodafone	1,282,261	212,528,363	213,810,624	1%
BSNL	396,111	107,915,331	108,311,442	0%
Tata Tele	-1,909,399	36,692,955	34,783,556	-5%
Idea	1,144,631	196,498,174	197,642,805	1%
Aircel	-3,491,753	84,934,658	81,442,905	-4%
MTNL	-10,634	3,584,766	3,574,132	0%
MTS				
Telenor	-1,608,256	41,910,728	40,302,472	-4%
Reliance Jio	8,300,054	160,091,242	168,391,296	5%
All Operators	**(15,499,223)**	**1,167,435,645**	**1,151,936,422**	**-1%**

Mobile Connections in India - January 2018 ©MEDIANAMA

Telco	Mobile Connections in India(Active) - January 2018			©MEDIANAMA
	Net Additions	Dec-17	Jan-18	%Change
Airtel	10,285,485	302,355,851	312,641,336	3%
RCOM	(1,859,946)	3,021,454	1,161,509	-62%
Vodafone	(4,164,462)	206,343,788	202,179,326	-2%
BSNL	88,922	65,536,981	65,625,903	0%
Tata Tele	(15,971,266)	25,241,084	9,269,818	-63%
Idea	2,091,561	202,982,614	205,074,174	1%
Aircel	(2,264,355)	52,107,413	49,843,058	-4%
MTNL	(13,854)	1,537,506	1,523,652	-1%
MTS	-	-	-	
Telenor	(599,588)	27,598,214	26,998,626	-2%
Reliance Jio	5,197,423	133,051,831	138,249,254	4%
All Operators	(3,000,153)	1,015,552,268	1,012,552,115	0%

The cellular services industry in India has grown at a scorching pace in the last ten years, to become one of the fastest growing mobile services markets in the world. Increasing competition has benefitted customers immensely with increased choice for service providers and some of the lowest tariffs in the world. But this rapid change has also resulted in several problems for consumers such as deteriorating Quality of Service (QoS), increased electromagnetic radiation levels and customer dissatisfaction over plan information.

(Data as on Q.E. 30th June, 2018) Telecom Subscribers)

a) Wireless +Wireline
- Total Subscribers 1,168.89 Million
- % change over the previous quarter -3.09%
- Urban Subscribers 652.76 Million
- Rural Subscribers 516.13 Million
- Market share of Private Operators 88.72%
- Market share of PSU Operators 11.28%
- Teledensity 89.72
- Urban Teledensity 158.16
- Rural Teledensity 57.99

b) Wireless Subscribers
- Total Wireless Subscribers 1,146.49 Million
- % change over the previous quarter -3.12%
- Urban Subscribers 633.60 Million
- Rural Subscribers 512.89 Million
- GSM Subscribers 1,143.48 Million
- CDMA Subscribers 3.02 Million
- Market share of Private Operators 89.83%
- Market share of PSU Operators 10.17%
- Teledensity 88.00
- Urban Teledensity 153.52
- Rural Teledensity 57.63
- Total Wireless Data Usage during the quarter 10,418,076 TB

c) Wireline Subscribers
- Total Wireline Subscribers 22.40 Million
- % change over the previous quarter -1.82%
- Urban Subscribers 19.16 Million
- Rural Subscribers 3.24 Million

- Market share of Private Operators 32.12%
- Market share of PSU Operators 67.88%
- Teledensity 1.72
- Urban Teledensity 4.64
- Rural Teledensity 0.36
- No. of Village Public Telephones (VPT) 1,86,951
- No. of Public Call Office (PCO) 3,30,504

TELEDENSITY

- The overall Tele-density in India increased from 88.62 at the end of May-18 to 89.72 at the end of Jun-18.
- The Urban Tele-density increased from 156.49 at the end of May-18 to 158.16 at the end of Jun-18, and Rural Tele density also increased from 57.18 at the end of May-18 to 57.99 at the end of Jun-18.
- The share of urban and rural subscribers in total number of telephone subscribers at the end of Jun-18 was 55.84% and 44.16% respectively

India's population as of latest is 1,36,1101715 as per un estimates and equivalent to 17.74 % of world population. Density of population is 451.54

Indian mental health scenario

The WHO has defined sustainable development goals and elaborated the impact of mental illnesses and suicide on them. The suicide rate in India in 2015 at 15.7/100,000 is higher than the regional average of 12.9 and the global average of 10.6. Suicide is the leading cause of death among those aged 15–29 in India. There remains a massive unaddressed need within the population. The treatment gap, as measured by the absolute difference between the prevalence of mental illnesses and the treated proportion, has been found to be 76%–85% in less-developed countries. One of the major reasons attributed to such a wide treatment gap is the problem of inadequate resources. In India, inadequacy exists in infrastructure as well as in human resources. Despite improvements in various health indicators, India contributes disproportionately to the global burden of disease. Our health indicators compare unfavorably with other middle-income countries and India's regional neighbours. A large proportion of the population ends up impoverished because of high out-of-pocket health-care expenditures and suffers the adverse consequences of the poor quality of care. Task-shifting to nonspecialist community health workers has been recommended as an effective strategy for delivery of efficacious treatments in low-resource settings. Given the dire shortage in numbers of psychiatrists, psychologists, psychiatric nurses, and social workers; piggy-backing on primary care systems and employing innovative force-multipliers are future courses of action. Considering that most of the earlier strategies to enhance mental health have not succeeded over the past six decades or more in less-developed countries, the time has come to take on a new approach with renewed vigor. Mental health awareness can become both the means and the way of ending this apathy. Progressive government policies based on evidence-based approaches, an engaged media, a vibrant educational system, a responsive industry, aggressive utilization of newer technologies and creative crowd-sourcing might together help dispel the blight of mental illnesses.

Mental healthcare professionals in India
TABLE OF REQUIREMENT AND AVAILABILITY

MANPOWER	REQUIREMENTS	AVAILABILITY
Psychiatrists	13,500	3827
Clinical Psychologists	20,250	898
Psychiatric Social Workers	37,000	850
Psychiatric Nurses	3000	1500

Source: Lok Sabha Unstarred Question Number 2709

Change in social fabric

Gestures and methods of communication changed. Voice to chat, Chat to email/what's app, what's app to video call, 24x7 availability of person and staying connected. Everywhere privacy standards distorted. Transparency standards changed. People becoming judgemental use technological response as emotional response. This can be described in three basic processes, so as to eliminate complexity.

- DISRUPTION
- DISTRACTION
- DISTORTION

Collectively this phenomenal description symbolically refers to technological overwhelming in epidemic form. These 3 D's happen in every communication situation here in India. Of course, by one way or the other it happening in the world. The social practices and traditional expectations and fulfilments in basic communication behaviour is drastically changed. Lots of cases of depression, insomnia, extreme anxiety and anger are reported at every age group. News of suicide, suicidal attempt, domestic crime has risen. The increasing use of mobile telephones and the overexposure to social networks catch our attention and cause social alarm, particularly young people and adolescents are exposed to cyberbullying either as aggressors or victims. The mobile phone is being commonly used to harass, torment and intimidate others deliberately and repeatedly. A characteristic behavior exhibited as constant checking of messages received via mobile phone, which can carry threatening and harassing remarks made about them by others leading to an increase in personal and interpersonal conflicts like feelings of anxiety, depression, low self-esteem, irritability and sleep disorders which in turn lead to excessive of mobile phone use and increased problematic Internet use. Thus, mobile users change their social and work/academic habits, tend to isolate themselves, and see their mobile as a refuge to help them look for more supportive virtual relationships, and as social substitute for face-to-face relationships with friends. As for the hours of use of mobile, results highlight that students who use mobile phones more than eleven hours a day have more conflicts with its use, and this "use" has a more communicative and emotional angle. People trying to relieve their emotional distress (boredom, loneliness, anger, nervousness, etc.) by talking on phones [3].

Abuse or dependence, behaviours that aren't controlled by the individual, and that distance them from their normal actions. These behavioural disorders (DSM 4, CIE 10) coincide with 'substance dependency' as a group of behavioural, cognitive and physiological phenomenon. Mobile abuse intervenes to a greater or lesser measure on a neuronal reward circuit known as the mesolimbic dopaminergic system, that favours, by means of pleasurable sensations, adaptive behaviours. This is inaccessible to the conscious or voluntary mind. Because of this, the need to consume is produced in apparent absence of conscious, rational behaviours. Cell-phone abuse interfering with healthy activities and habits, specifically affecting sleep time and quality.

Circadian cycle of rest and work
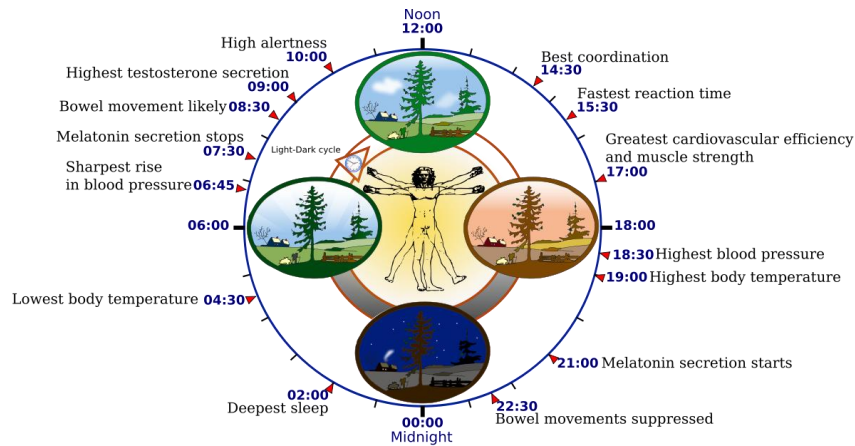
Algorhythmic behaviour is a term coined by researcher to relate phone based and influenced change in this circadian cycle to conditioned message to response machine or input to output behaviour of people.

Some questions to be raised for all of us to reflect
- Is this change socially justifiable? Yes and No both. We have to further explore with action research.
- Is it inevitable? Yes
- Is it correctable? Yes
- Is India going to evaluate, benchmark and control this? We have to explore more better options out of technological and political frames of reference.
- At what cost of wellness, we want to grow fast?
- We all have to introspect and decide "Is speed the parameter of growth and wellness"?

Conclusions

ALL IS NOT WELL
1. India is facing data explosion effect of which is disastrous with reference to community health.
2. Either empirical or judgmental approach will not help and even Regulation will not solve this issue.
3. Urban rural teledensity divide is huge challenge for India.
4. Wellness and wellbeing is discarded in the process of disruption, distraction, distortion.
5. Circadian habits to algorhythmic habits change in social behavior is big challenge.
6. Future requires multidimensional approach in handling the challenges.

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