Prevention and Control of Health Problems Related to Information & Communication Technology (ICTs) Use in China

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Outline

- The status of Internet and mobile phone use
- The ICT use-related problems in juveniles
- The intervention on internet use-related problems and its challenges
- The public policy and health system responses to the internet use-related problems.
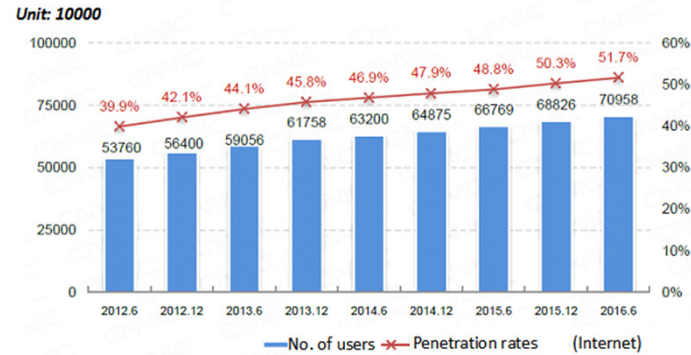

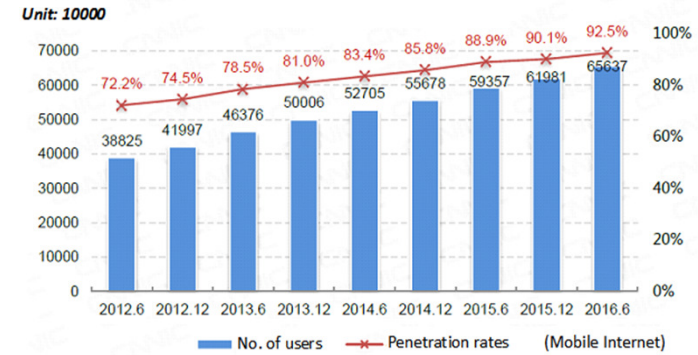# The Status of ICTs Use in China

Available on:
http://wearesocial.com/uk/blog

ICT Devices in China

Available on:
http://wearesocial.com/uk/blog
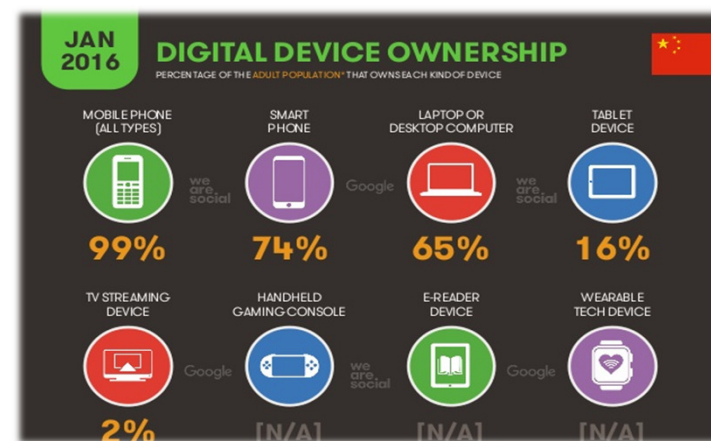
The Number of Users and Penetration Rates of Internet

The Number of Users and Penetration Rates of Mobile Internet

The Number of Internet Users and Internet Penetration Rates

The Scale and percentage of Mobile Internet Users
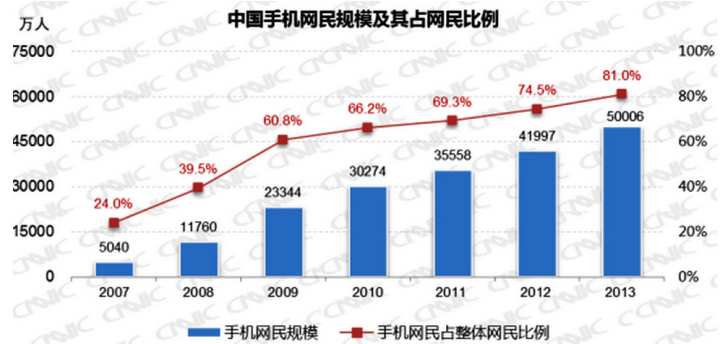
Problems Associated with Excessive ICTs Use

- Unintentional injuries / Fatal accidents
- Poor interpersonal relationship
- Poor workplace/academic performance
- Poor physical/psychological/social functioning
- Problems in financial affair
- Addiction
- Comorbidity of mental health problems

Epidemiological data on Excessive Use of ICTs

- 2.4% for IA among the adolescents in Changsha (Cao et al., 2007)
- 8.8% for IA among the adolescents in Shanghai (Xu et al., 2011)
- 26.2% for problematic mobile phone use among the adolescents in four Chinese cities. (Tao et al., 2016)
- 21.3% for problematic smartphone use among the undergraduates in Changsha (Long et al., 2016)

The Debate on the Nature of IA in China

- As a normal behvaviour
- As a social deviate behaviour
- As a group of psychological problems
- As a behavioural addiction, with other mental disorder comorbidity
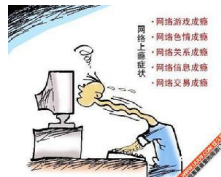
IA and Psychiatric comorbidity

Ho *et al. BMC Psychiatry* 2014, **14**:183
http://www.biomedcentral.com/1471-244X/14/183

BMC

RESEARCH

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psychiatr

Roger C Ho[1], Melv
Paul S Yip[4], Lawren

Eight studies comprising 1641 patients suffering from IA and 11210 controls were included. Our analyses demonstrated a significant and positive association between IA and alcohol abuse (OR = 3.05, 95% CI = 2.14-4.37, z = 6.12, P < 0.001), attention deficit and hyperactivity (OR = 2.85, 95% CI = 2.15-3.77, z = 7.27, P < 0.001), depression (OR = 2.77, 95% CI = 2.04-3.75, z = 6.55, P < 0.001) and anxiety (OR = 2.70, 95% CI = 1.46-4.97, z = 3.18, P = 0.001)

Abstract
Background: This study evalu... ...tween Internal Addiction (IA) and psychiatric co-morbidity in the literature.
Methods: Meta-analys... ...ted on cross-sectional, case–control and cohort studies which examined the relationship betwe... ...as psychiatric co-morbidity. Selected studies were extracted from major online databases. The inclusion c... ...as follows: 1) studies conducted on human subjects; 2) IA and psychiatric co-morbidity were assesse... ...tandardised questionnaires; and 3) availability of adequate information to calculate the effect size. Random...ects models were used to calculate the aggregate prevalence and the pooled odds ratios (OR).
Results: Eight studies comprising 1641 patients suffering from IA and 11210 controls were included. Our analyses demonstrated a significant and positive association between IA and alcohol abuse (OR = 3.05, 95% CI = 2.14-4.37, z = 6.12, P < 0.001), attention deficit and hyperactivity (OR = 2.85, 95% CI = 2.15-3.77, z = 7.27, P < 0.001), depression (OR = 2.77, 95% CI = 2.04-3.75, z = 6.55, P < 0.001) and anxiety (OR = 2.70, 95% CI = 1.46-4.97, z = 3.18, P = 0.001).
Conclusions: IA is significantly associated with alcohol abuse, attention deficit and hyperactivity, depression and anxiety.
Keywords: Internet addiction, Depression, Anxiety, Alcohol abuse, Attention deficit, Hyperactivity

Policy response: The Regulation for Internet Information Service

- Goal: management of Public Internet access services (net bar or cybercafe)
- Licenses permission: no organization or individual can provide Internet access services without government permission
- internet information censorship

Policy responses: The Regulations for Public Internet Access Services Premises

- Juveniles are not permitted to enter the net bar, and the net bars should have a sign at the entrance: no entry for the minors.
- Business time of net bar is limited to 8am to 12pm
- The business sites of net bar should be at least 200 meters away from primary and middle school campus, and not be in residential areas.

Intervention of IA in China

- Psychological counseling and treatment
  - CBT
  - Group therapy
  - Family therapy
- Drug treatment
  - Anxiolytic and antidepressive drugs
  - Naloxone
- Conceive therapy (Internet addiction campus)
  - Education, psychological counseling etc.
  - Paramilitary training and management
  - Electric stimulant (aversion therapy)
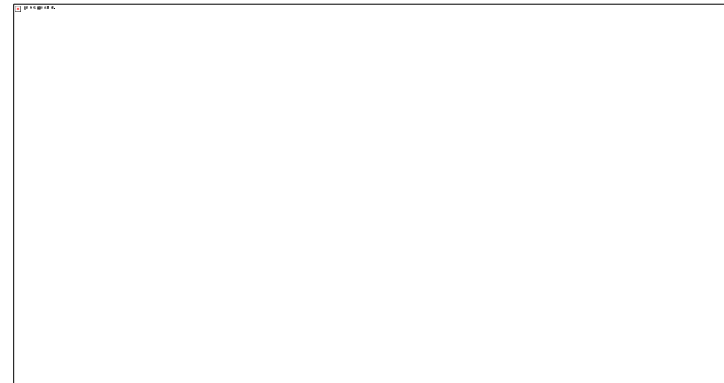 - Physical punishment

Paramilitary training and management for Teenage with IA

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Comment on Intervention of IA in China

- No any study with double blind design for the IA treatment;
- No any systematic evaluation on the efficacy of different intervention approaches;
- The intervention is provided by different sectors: health, education, commerce, organization of the communist youth league, civil and cultural affairs.

Guidance to Healthy Internet Use for Minors (Draft)

Goal:
- To guide the Juveniles how to use Internet moderately and properly.
- To provide guidance for family, school and society to prevent Juveniles from misuse of Internet.
- To improve public understanding on the positive and negative consequences of Internet use of minors.

The draft for public review released in 2009 by the Bureau of Disease Prevention and Control, the Ministry of Public Health of China

The Principle of Intervention on Internet Misuse

- Providing multiple component interventions by qualified professionals.
- The aim of intervention is to reduce psychological and behavioural problems and improve social functioning, not impose restrictions on Internet access.
- Strictly forbidden the restriction of the personal freedom and physical punishment.
- Referring individuals with Internet misuse related mental disorders to medical facilities, and providing the medical treatment under the standard clinical diagnosis and treatment guidance.

The draft for public review released in 2009 by the Bureau of Disease Prevention and Control, the Ministry of Public Health of China

The Program of Comprehensive Prevention and Intervention for Online Game Addiction among Juveniles

- General Goal : Create a healthy and positive cyber culture ; minimize the harm of IA for Juveniles
- Department in Charge : The National Coordinating Group for Regulation on Net Bars and Online Games
- Department Involved: The Ministry of Education, Ministry of Culture, Ministry of Finance, Ministry of Public Security, Ministry of Health, and Cyberspace Administration of China, etc.

Jointly issued in 2013 by 15 national ministries and commissions of China

The Program of Comprehensive Prevention and Intervention for Online Games Addiction among Juveniles

Highlights :
* Integrate various governmental resources to deal with online game addiction and related mental and behavioral disorders.
* Encourage research institutions and mental health service providers to develop a set of localized evaluation and intervention approaches.
* Propose to create a legislative and regulatory framework for the prevention and treatment, thus stringently regulate all the entities which offer any services related to online games addiction.
* Urge all relevant government sectors and public institutions to actively take part in the program and ensure sufficient funding.

Jointly issued in 2013 by 15 national ministries and commissions of China

Challenges

* The substantial change of Internet access from PC to various portable ICTs products such as smartphones and tablet PCs
* The emergence of various ICTs with more immersive experience, such as virtual reality devices (VR), and mobile game with Augmented Reality (AR)
* No coordinated government body for the policy development , implementation and evaluation: The Ministry of Education? Ministry of Culture? Ministry of Health? or Cyberspace Administration of China? ...

Future Direction

* ICTs use related problem is one of public health and social issue in teenage in China
* To conduct studies to understand the nature, scope , diagnosis, natural course of ICTs use related problem.
* To intensify the implementation and evaluation on issued regulations and programs
* To evaluate the different intervention approaches.
* To recommend that ICD-11 to include the ICTs use related mental health problem in classification system.