



Prevention & Treatment of Pathological Internet Use in China

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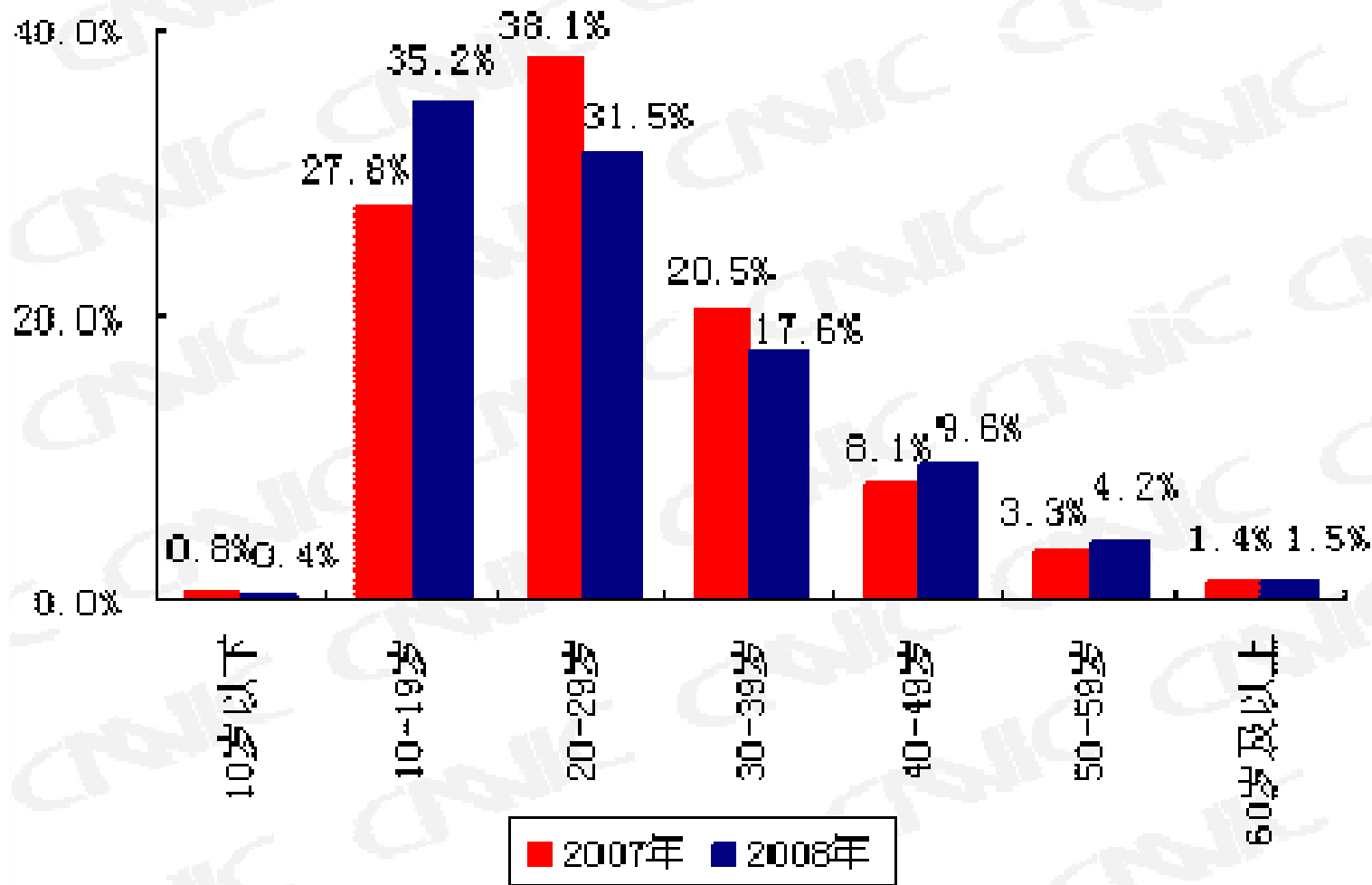


Part A: Background

Internet Users in China

- **298 million users in 2008**
- **22.6% of the general population (21.9% in the world)**

China Internet Network Information Center(CNNIC). 2009.1.12.[2009-5-8]
<http://www.cnnic.net.cn/html/Dir/2009/01/12/5447.htm>.



Age distribution of Internet users

National survey in 2007

Investigators:

- ❁ Central China Normal University
- ❁ Beijing University of Posts and Telecommunications
- ❁ Market Development Center, Ministry of Culture

Sponsors:

- ❁ Ministry of Culture
- ❁ Ministry of Finance

Samples

- ❁ 18 provinces (1 metropolis, 1 city, 1 county, 1 town in each province)
- ❁ 104600 questionnaires distributed, 100201 collected
- ❁ 8 populations
 - ❁ primary school
 - ❁ secondary school
 - ❁ high school
 - ❁ college
 - ❁ parents
 - ❁ off-campus youth
 - ❁ administrators
 - ❁ internet cafe operators

Results

- ❁ 79.3% of adolescents had played internet games
- ❁ Negative effects on physical health were generally mild. Some users had fatigue and impaired vision.
- ❁ Internet game addiction*
 - ❁ 2.9% in children and adolescents
 - ❁ 3.5% in adults

* Cui LJ. Identification of Internet addiction and Internet game addiction with Angoff's method. *Applied Psychology*, 2006, 12(20):142-147



Part B: Diagnostic Criteria

Prevalence of PIU

- ROK 2.9%-6.1%
- Singapore 17.1%
- UK 18.3%
- Taiwan, China 5.9%
- Mainland China 2.4%-15%

Harms of PIU

- Physical
- Psychological
- Academic achievement
- Social
- Other social functioning

PIU: Operational definition

PIU is a syndrome characterized by inappropriate behaviors of internet users driven by over-strong desire, unaccepted by social norms, or severely harmful to themselves. These behaviors are not for economic benefits, but for self-satisfaction psychologically. The users have uncontrollable desire and strong interest to use internet, feel nervous before and relaxed after internet use.

Item sources

- Young's 8 criteria
- Beard's 5 + 3 criteria
- Ko's A, B, C criteria
- Gao's 8 criteria

integration

12 symptoms
severity
duration
exclusion

Subjects

- 79 inpatients with internet use problems in a general hospital

gender: 77 males , 2 females

age: 17.9±3.1yrs (range 12-29 yrs)

education: 10.7±2.6 yrs (range 6-19 yrs)

- 44 male first graders in a high school

age: 15.2±0.4 yrs (range 14-16 yrs)

education: 10.0 yrs

Interview

- All interviewer (also raters) were psychiatrists and professors/associate professors
- Diagnoses were based on the operational definition of PIU and ICD-10 chapter F.
- For 79 inpatients
 - ▶ Two psychiatrists in a group interviewed subjects alternatively.
 - ▶ Consensus diagnosis of PIU was taken as a positive case, otherwise negative
- For 44 high school students
 - ▶ Each psychiatrist separately interviewed a group of subjects
 - ▶ If one psychiatrist identified a PIU case, another one was to re-interview the very subjects and made a consensus diagnosis

Diagnosis

Diagnosis	Inpatients (N=79)	Students (N=44)
Consensus PIU (+)	54	-
Consensus PIU (-)	18	-
No consensus	7	1
Single evaluation (-)	-	43

Inter-rater reliability: Kappa=0.812 , P<0.001

- ❁ Inter-rater reliability of 12 symptoms:

- ❁ Poor for symptoms 4 and 11 (kappa<0.5)

- ❁ Logistic regression:

- ❁ Symptoms 2, 5, 6,10 contributed little to the diagnosis of PIU

Symptom # & diagnosis

symptom #	sensitivity	specificity
1	95.4	71.8
2	94.5	78.8
3	88.1	85.9
4	78.9	95.3
5	53.2	100.0
6	22.0	100.0

Severity criteria

The original descriptions were rephrased according to the test results.

Duration of illness

range : 2-120 months

median : 12 months

Recommended: 3 or 6 months?

Comorbidity

ADHD	7
Major depressive disorder	7
Dysthymia	4
Other mood disorder	3
Conduct disorder	3
OCD	1
Borderline personality	1
Adjust disorder	1

Revised Diagnostic Criteria of PIU

- A Symptom criteria (at least 4 items)
1. Has strong desire or impulse, and try every efforts, to use internet.
 2. Is preoccupied with internet use, recalls previous experience, or expects to use internet next time;
 3. Lies to family, relatives, teachers, schoolmates or professionals, hides his/her extent of internet use, including real time and money spent;
 4. Has ever tried to control, reduce or stop internet use but failed;
 5. Feels agitated, irritable, anxious or boring after stop using internet for a few days, re-use of internet can relieve or avoid these symptoms;
 6. Continues to use internet while is aware that internet use can induce or precipitate pre-existing physical or psychological problems.

Revised Diagnostic Criteria of PIU

- B Severity criteria (at least 1 item)
 Because of Internet use
 1. Relation with family and friends was significantly influenced ;
 2. Or academic achievement and work performance was severely decreased;
 3. Or violate laws, regulations or school rules, e.g., absenteeism, trancy, physical fights.

- C Illness duration of 3 months or longer.

- D Exclusion of psychotic disorder, substance abuse



Part C: Prevention Strategy

Prevention Strategy

- ❁ State Council (2004)
- ❁ Ministries of Culture, Health, Public Security, Education, Industry & Commerce, etc.(2002, 2004,2005,2007,2008,2009)
 - ❁ legal Internet cafes (quantity control, ID checking)
 - ❁ illegal internet cafes
 - ❁ internet access in schools
 - ❁ game-related gambling
 - ❁ review and rating of internet games
 - ❁ Internet service in public welfare
 - ❁ MOH is responsible for the prevention and intervention of PIU (diagnostic criteria, manual, theme of mental health day)



Part D:
Treatment (?)



Danke!