



The Yale-China Health Journal

Autumn 2006 Volume 4

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Foreword

“Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.”

—Preamble to the Constitution of the World Health Organization¹

More than half a century ago, the World Health Organization (WHO) defined health as a state encompassing the physical, mental, and social dimensions. Great strides have been made since that time in improving people’s physical health worldwide, and this is well demonstrated by the dramatic improvement of global health indicators over the past half century. For example, global life expectancy has risen from 47 years in 1950–1955 to 65 years in 2000–2005, and is expected to reach 75 years in 2045–2050.¹ Infant Mortality has decreased from 157 per 1,000 births in 1950–1955 to 57 per 1,000 births in 2000–2005.¹ Despite these achievements, we must also note that there are regions of the world that are lagging behind. Furthermore, recent epidemics such as HIV/AIDS have even reversed health gains in some sub-Saharan African countries.

The case of China tells a story parallel to the generally positive global trend in the improvement of physical health, and this has been accomplished at a pace exceeding that of the global average. Life expectancy at birth has risen from 40.8 years in 1950–1955 to 71.5 years in 2000–2005; infant mortality has decreased from 195 deaths per 1,000 births in 1950–1955 to 34.7 per 1,000 births in 2000–2005.¹

The improvement of health indicators in China and many other parts of the world can largely be attributed to a number of important factors, including improvements on the economic front, which have helped to propel the rapid advances in medical sciences. Such combinations have led to a number of highly effective disease control mechanisms including antibiotics and vaccines. The combination of new tools and other effective disease control strategies has curbed many communicable diseases, an ultimate triumph that has led to the

¹ as adopted by the International Health Conference, New York, 19–22 June 1946; signed on 22 July 1946 by the representatives of 61 states (official records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.

drastic improvement of health indicators that we have observed in the past half century.

Like the rest of the world, while much progress has been made in the national physical health, improvements in mental health in China have largely lagged behind, and the field has only begun to receive attention in recent decades. This slow response has much to do with our lack of understanding of the physiological causes of mental illnesses, making diagnoses more difficult than many other physical illnesses. Furthermore, even when the causes are known, for a variety of reasons such as lack of available drugs, therapies, or resources, effective treatment often lags behind. Such gaps in knowledge and intervention also contribute to the enormous shame people feel about mental illness, which in turn further fuels the inaction in establishing effective policy and medical strategies to tackle mental illnesses.

In an effort to bring mental health issues into focus and highlight the severity of the problem, the Yale-China Association sponsored a conference dedicated to the topic of mental health in China on October 19 and 20. The two-day conference was held in Changsha, Hunan, in collaboration with Xiangya School of Medicine and the Mental Health Institute of the Second Xiangya Hospital. The conference showcased leading Chinese researchers in the field and covered such topics as current government policy, mental health legislation, community mental health strategies, psychiatric nursing, and the development of mental health care in China. In this issue of *The Yale-China Health Journal*, we present three articles by conference participants on topics of Internet overuse, domestic violence, and ethics in psychiatric clinical settings. They represent issues mental health researchers are examining that are not typical of the more traditional topics one reads on this subject. The following passages review the mental health challenges China faces and also some encouraging new developments that have been observed in recent years, based in part on presentations at the Changsha conference.

CHINA'S CURRENT STATE OF MENTAL HEALTH

What are the problems many of the countries that lack adequate mental health services face? In the 2001 *World Health Report* dedicated to the topic of mental health, the WHO set forth a set of recommendations to improve mental health services, based on some of the common deficiencies across nations. These included items such as integrating mental health services in primary care settings, making psychotropic drugs available, shifting patients from mental hospitals to care in the community, educating the public, setting national policies and legislation, and strengthening trained personnel. As many of the presenters

at the October 2005 Yale-China Mental Health Conference pointed out, China's mental health problems are by no means unique; many of the key challenges discussed at the conference echoed many of the same issues listed by the WHO.

There is only a limited number of country-wide, population-based epidemiological studies that examine mental illnesses in China. A 1982 survey of 12 regions in China estimated that 10.54 people out of 1,000 will suffer from mental illnesses at some time in their lives (lifetime prevalence), and a similar 1993 survey of 7 regions estimated the lifetime prevalence of mental illnesses to be 13.47 per 1,000 people.^{2,3} WHO's World Mental Health Survey in Beijing and Shanghai estimated that the twelve-month prevalence of any mental disorders for each city were 9.1% and 4.3%, respectively.⁴ All these estimates indicate that China has lower mental illness prevalence than some of the more developed Western countries.⁴ For example, the United States was estimated to have 26.3% twelve-month prevalence of any mental disorder, a number that is 3 to 7 times that estimated for China.⁴ Japan, a developed country in the same region, had a twelve-month prevalence of any mental health disorder of 8.8%, similar to that in China. This similarity may suggest cultural and regional factors that have contributed to the lower prevalence we observe in China in comparison to the West.

A closer look at the different mental disorders in China reveals that schizophrenia, depression, alcohol and drug dependence, Alzheimer's disease, and teenage behavior problems are the most prevalent psychiatric diseases and behavior disorders in China.⁵ The 1993 national epidemiological survey reported prevalence for schizophrenia, mood disorder, alcohol dependence, organic psychosis, and mental retardation at the time of the study as being 5.31‰, 0.52‰, 0.68‰, 0.47‰, 0.99‰, and 2.57‰, respectively.³

MENTAL DISORDERS: A HIDDEN PUBLIC HEALTH PROBLEM

Although the overall prevalence for mental disorders in China ranks lower than that of other developed countries, a mental disorder lifetime prevalence that is 13.47 cases per 1,000 people among a population of over 1.3 billion would indicate that in China, 17.5 million people will suffer from some form of mental illness over the course of their lifetimes. Furthermore, such figures alone only tell a small part of the story. The severity of the mental health problem becomes more apparent when we examine this number within its overall cultural, social, and economic context.

The first line of evidence indicating that mental illnesses pose a severe problem for China comes from the disease burden imposed by mental illnesses.

According to the Global Burden of Disease estimate, mental illnesses account for close to 20% of the total disease burden in China.⁶

Compounding the problem is the insufficiency of the current Chinese health system, which has failed to mitigate the heavy burden posed by mental illnesses. The overall trend from the 1980s has been for China's health care industry to become increasingly privatized. Government investment in health care has decreased since the late 1970s and, although there have been many efforts to reverse the trend, public investment has been vastly inadequate to meet the need and demand. A large percentage of the population pays for health care out of pocket, with nearly 70% of the total Chinese population lacking any health insurance.⁷ When people fall ill, the entire medical cost is paid out of pocket, and in the case of many mental illnesses, this causes great financial devastation to patients and their families.

Even when someone has health insurance, the current medical infrastructure is not equipped to meet the need for mental health services. Except for a few large urban centers where new medical technologies are available and trained mental health professionals are on staff, China's current psychiatric care infrastructure is greatly outdated and inadequate. The situation in the rural areas is even worse since China's current psychiatric service delivery system is based largely on a specialty psychiatric inpatient and outpatient service model that is concentrated in urban settings. Therefore, rural psychiatric disorder sufferers face difficulty in accessing any psychiatric care. This disparity in access also exists between coastal, more developed regions and the inland and western regions. The economically more developed regions along the coast lead the way in addressing mental health problems, not only in service provision but also in other areas related to mental health. For example, the city of Shanghai has led the nation in piloting community mental health service models and in instituting China's first regional mental health law. In most parts of China, community-based psychiatric care still does not exist. And for the 800 million rural residents, the situation is even more grave.

As many of the presenters at the Yale-China Mental Health Conference pointed out, China lacks sufficient trained professionals who can diagnose and treat psychiatric patients. With an estimated 17.5 million people suffering from some form of mental illness, only 15,000 psychiatric physicians are available, and of those, only 3,000 have university or higher degrees.ⁱⁱ Qualified psychiatrists with specialty training remain scarce. For example, it is estimated by Dr.

ⁱⁱ Based on presentation of Dr. Bing Xie at the October 2005 Yale-China Mental Health Conference in Changsha, China.

Xue-rong Li of the Mental Health Institute at Central South University Xiangya Second Hospital that China has approximately 150 university-trained child psychiatrists. These 150 child psychiatrists, who mostly work in major cities, are vastly outnumbered by the estimated 3 to 8 million children and adolescents who have mental health problems.ⁱⁱⁱ In addition, current medical school students are not receiving adequate training in mental health. For example, medical students at Xiangya School of Medicine in Changsha only receive between 40 and 60 hours of training in psychiatry out of their entire 5-year medical school training.^{iv} If China is to speed up the pace at which it addresses mental health problems, it is critical to train an adequate number of specialists who can diagnose and treat those who are suffering from mental illnesses, as well as generalists with adequate training to recognize patients who may suffer from psychiatric disease but not seek specialty treatment.

A further barrier that prevents mental illness sufferers from obtaining adequate medical care is perhaps more difficult to overcome and yet is also universal. In China as is in many parts of the world, there is strong cultural stigma attached to mental illness, which in part results from a lack of understanding of the disease and also the lack of available treatment and rehabilitation methods. This stigma presents an enormous barrier that prevents sufferers and their families from seeking help for fear of disclosing their disease status. It also discourages people from discussing mental illness, thus further fueling the isolation of those who suffer from psychiatric conditions.

RECENT DEVELOPMENTS

China's mental health problem is grave; however, national and regional policy makers, as well as many health care professionals and researchers, are starting to recognize that the impact of mental illness falls not just on those who suffer from the disease, and those whose family members suffer from the disease, but on society as a whole. In recent years, there have been initiatives and efforts stemming from the central and local governments, and there are individuals, groups, and agencies working to help bring about positive change.

These positive developments can be seen in some efforts initiated by legislative and government planning bodies. During the Mental Health Conference in Changsha, Dr. Bing Xie of the Shanghai Mental Health Center, who has been involved in developing China's first mental health law, discussed at length the

ⁱⁱⁱBased on presentation of Dr. Xue-rong Li at the October 2005 Yale-China Mental Health Conference in Changsha, China.

^{iv}Based on conversation with Dr. Wei Hao of Xiangya Second Hospital Mental Health Institute.

development of this document, then in its sixteenth draft. Key elements in this legislation include the process of informed consent, ways in which mental disorders should be determined, specific regulations on the use of seclusion and restraint, and rights of patients when receiving mental health services. Completion and final approval of this legislation, which has been developed over a twenty-year span since the first draft in 1985^v will truly be a landmark for China, although its success will depend on its actual implementation.

In addition to the legal front, the China Ministry of Health (MOH) has also established a working group to focus on piloting programs for serious mental illnesses in China. Dr. Hong Ma, Deputy Director of the Mental Health Center of the China Center for Disease Prevention and Control, has been leading the effort to develop and implement the program. She presented the work of the working group, which has been funded directly by the MOH. Furthermore, there has been increasing interest from within China to learn from different models that have worked well in other countries, including those in Australia and the United States.

China is in the midst of rapid and dramatic changes, bringing strengthened economic power and newfound confidence on the international stage, but much slower development has been seen in health. With its transition from a centrally planned socialist economy to a largely market-driven economy, many areas have fallen by the wayside in the push for economic progress. Many have argued that this transition, combined with the lack of adequate public investment in many areas, has led to the erosion or even collapse of a health system that previously tended to its citizens, though at very basic levels. The story of mental health, which is imbedded within this larger picture, has also been affected by the overall changes China is experiencing. However, the lack of attention to mental health has been persistent, existing before the economic reform era and continuing to this day.

Mental illnesses in China are of epidemic proportion and need immediate concerted multi-sectoral efforts. As China looks to re-examine and reinvent its health and social welfare system, mental health must figure in this overall planning.

—*The Editors*

^vBased on presentation by Dr. Bing Xie at the October 2005 Yale-China Mental Health Conference in Changsha, China.

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The Yale-China Mental Health Conference

Mental Illness in China: Status, Needs, and Strategies

*A conference sponsored by the Yale-China Association and
Xiangya School of Medicine*

*October 19 & 20, 2005
Changsha, Hunan province, China*

The conference brought together prominent researchers, policymakers, public health professionals, and clinicians to assess the status of mental health in China in the context of the overall health care system and corresponding policy, legal, and social environment.

CONFERENCE PRESENTATIONS

Study on Domestic Violence

Presenter: **Yu-ping Cao**
Mental Health Institute
Central South University
Changsha, Hunan, China

Teenager Internet Overuse-related Mental Health Issues in China

Presenter: **Xue-ping Gao**
Department of Child Psychiatry
Mental Health Institute
Central South University
Changsha, Hunan, China

Mental Health Services in Hunan: Current Status and Future Development

Presenter: **Tian-sheng Guo**
Vice President
Hunan Provincial Brain Specialty Hospital
Changsha, Hunan, China

Substance Abuse in China

Presenter: **Wei Hao**

Director, WHO Collaborating Center for Drug Abuse and Health
Deputy Director, Mental Health Institute
Central South University
Changsha, Hunan, China

With Hangzhou Experience: Strategies to Improve Community Mental Health Services in China

Presenter: **Ming He**

Department of Community Mental Health Services
Hangzhou 7th Hospital
Hangzhou, Zhejiang, China

Psychiatric Epidemiology in China

Presenter: **Yue-qin Huang**

Deputy Director & Professor
Beijing University Mental Health Research Institute
Beijing, China

The Role of Psychiatric Nurses in Providing Psychoeducation for Persons Suffering from Severe Mental Illness and Their Families – Implications for Psychiatric Nursing Education

Presenter: **Chung-man Kwong**

Department of Psychiatry
Queen Mary Hospital
Pokfulam, Hong Kong, China

From Challenges to Opportunities: Possibility to Support Children Orphaned by AIDS through Existing Family Planning System

Presenter: **Dong-li Li**

China Population and Development Research Center
Beijing, China

Informed Consent for Psychiatric Care of Schizophrenic Patients

Presenter: **Ling-jiang Li**

Director & Professor
Mental Health Institute
Central South University
Changsha, Hunan, China

Equity in Mental Health Care in China: A Proposed Demonstration Model of Urban Community Psychiatry in Suzhou

Presenter: **Ming Li**

President, Suzhou Guangji Psychiatric Hospital
Advisor, Central Health Administration in Health Policy in China
Suzhou, Jiangsu, China

The Child and Adolescent Psychiatry in China: Present and Prospect

Presenter: **Xue-rong Li**

Department of Child Psychiatry
Mental Health Institute
Central South University
Changsha, Hunan, China

Chinese Ministry of Health Program on the Management of Serious Mental Illnesses

Presenter: **Hong Ma**

Deputy Director
National Center for Mental Health
China Center for Disease Prevention and Control

New Trend in Community Psychiatry—Implications for Primary Healthcare Development

Presenters: **Siu-man Ng**

Associate Professor & Clinical Coordinator
Center on Behavioral Health
The University of Hong Kong, Hong Kong, China

Yue Kong

Department of Health Policy & Management
Beijing University
Beijing, China

Graduate Psychiatric Nursing in the US

Presenter: **Sandra Talley**

Associate Professor & Director
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Yale University School of Nursing
New Haven, Connecticut, USA

Status of Mental Health Service in Communities in Changsha

Presenter: **Jiang-ping Tang**

President
Changsha Psychiatric Hospital
Changsha, Hunan, China

Mental Health Problem and Social Capital in Rural China

Presenter: **Hong Wang**

Assistant Professor
Division of Global Health
Yale University School of Public Health
New Haven, Connecticut, USA

Public Health Approaches to Suicide Prevention

Presenter: **Shui-yuan Xiao**

Dean & Professor
School of Public Health
Central South University
Changsha, Hunan, China

Thoughts on the Current Chinese Mental Health Service Models

Presenter: **Ze-ping Xiao**

President, Shanghai Mental Health Center
Professor, Shanghai Second Medical University
Shanghai, China

Mental Health Legislation – China's Experiences

Presenter: **Bin Xie**

Vice President, Shanghai Mental Health Center
Member, Chinese Legislative team on mental health
Shanghai, China

Psychiatric Nursing Management

Presenter: **Dong-mei Xu**

Hui Long Guan Psychiatric Hospital
Beijing, China

The Indigenous Mental Detachment Psychotherapy

Presenter: **De-sen Yang**

Honorary Director, Mental Health Institute
Central South University
Changsha, Hunan, China

Rehabilitation of Psychiatric Inpatients

Presenter: **Yan-lan Zhang**

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Prevalence and Psychosocial Features of Internet Overuse among Adolescents

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ABSTRACT

To understand the prevalence of Internet Overuse (IOU) among adolescents in Changsha and to explore the psychosocial features associated with IOU, we surveyed a total of 2,311 middle school students from four middle schools in Changsha City in Hunan province of China using Young's Diagnostic Questionnaire for Internet Addiction (YDQ), the Strengths and Difficulties Questionnaire (SDQ), the Time Management Disposition Scale (TMDS), the Screen for Child Anxiety Related Emotional Disorders (SCARED), and the Eysenck Personality Questionnaire (the edition for children, EPQ). The mean age of the sample was 15.04 years. According to the YDQ criteria, 56 students diagnosed as Internet Overusers (mean age: 14.59 years) and 56 diagnosed as normal Internet users (mean age: 14.43 years) were included in a case-control study. The rate of Internet use among the surveyed middle school students was 90%. Among this group, IOU incidence was 2.4%. The IOU group differed significantly from the control group in psychosocial features such as personality, time management disposition, anxiety, emotional problems, conduct problems, hyperactivity, and pro-social behaviors. The present study suggests that IOU among middle school students is not rare and that middle school students with IOU differ in psychosocial features from control group students.

Key words: Internet Overuse; psychosocial feature

Abbreviations: Internet Overuse, IOU; Young's Diagnostic Questionnaire for Internet Addiction, YDQ; Strengths and Difficulties Questionnaire, SDQ; Time Management Disposition Scale, TMDS; Screen for Child Anxiety-Related Emotional Disorders, SCARED; Eysenck Personality Questionnaire, EPQ.

INTRODUCTION

In recent years, Internet use in China has increased rapidly. Data from the China Internet Network Information Center indicate that as of December 2004, 94 million people in China had used the Internet. These numbers rank China as the second largest Internet-user market in the world, behind only the United States. For many students, the Internet has become indispensable in obtaining information, entertainment, and interpersonal communication. Although the Internet has enriched the lives of countless middle school students, several undesirable effects have emerged, in particular the problem of Internet overuse.

Although there is no official diagnostic classification for a pathological preoccupation with the Internet, some professionals have proposed that this phenomenon be considered a type of addiction characterized by an impulse-control disorder that primarily involves psychological dependence on the Internet. Internet addiction is considered a behavioral addiction akin to pathological gambling. However, further in-depth studies are needed to clarify if it qualifies as a new diagnostic entity. Additionally, there remains some hesitation about the use of the term “addiction” to describe Internet overuse. In this study, we use the term “Internet overuse” to describe an overindulgence or abuse of the Internet to the extent that such use results in psychological dependence and a significant decline in psychosocial functioning (see Methods for criteria).

The aim of the present study is to investigate the incidence of Internet overuse (IOU) among adolescents in Changsha and to explore the psychosocial features of IOU. A Chinese version of a questionnaire first developed by Young et al., which measures IOU by asking respondents 8 questions related to Internet usage, was used to survey our subjects. Fifty-six IOU students and fifty-six controls were subsequently selected and additional tools were used to compare the IOU group with the control group in various psychosocial features.

METHODS

Subjects

Two middle schools were selected randomly from each of the two types of middle schools in Changsha City: regular middle schools and key middle schools. We used a 2-stage sampling method to select 3 classes from each of the following grades: the 1st and the 2nd grades of junior middle schools where the mean age for 1st grade is 13.34 years and the mean age for 2nd grade is 14.48 years, grade 1 of senior middle schools and the 1st and 2nd grades where the mean age for 1st grade is 16.07 years, and the mean age for 2nd grade is 17.08 years. From the selected classes, 2,311 students participated in this research study.

Instruments

The Basic Information Questionnaire was used to collect demographic information such as gender, age, year in high school, last semester's grade point average, and Internet experience.

Young's Diagnostic Questionnaire for Internet Addiction (YDQ)¹ consisting of eight "yes" or "no" questions was translated into Chinese. YDQ consisted of the following questions: (1) Do you feel preoccupied with the Internet (think about your previous online activity or anticipate your next online session)? (2) Do you feel the need to use the Internet with increasing amounts of time for satisfaction? (3) Have you repeatedly made unsuccessful efforts to control, decrease, or cease your Internet use? (4) Do you feel restless, moody, depressed, or irritable when attempting to decrease or cease your Internet use? (5) Do you stay online longer than originally intended? (6) Have you jeopardized or risked the loss of a significant relationship, job, educational or career opportunity because of the Internet? (7) Have you lied to family members, therapists, or others to conceal the extent of your Internet use? (8) Do you use the Internet as a way to escape from problems or to relieve a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, or depression)? Respondents who answered "yes" to questions 1 through 5 and any of the remaining three questions were classified as Internet overusers.² The other respondents were classified as normal Internet users.

The Time Management Disposition Scale (TMDS)³ consisted of 44 items and was divided into three subscales to measure the subject's sense of control over time, sense of value of time, and sense of time efficacy.

The Strengths and Difficulties Questionnaire (SDQ)^{4,5} is composed of 25 items: 10 strengths, 14 difficulties, and 1 neutral item. The 25 items are divided into 5 subcategories, which measure hyperactivity, emotional symptoms, conduct problems, peer problems, and prosocial behavior. Each subcategory has 5 items and each item has 3 possible answers, each of which is assigned a value 0, 1, or 2. The score for each subcategory is generated by summing the scores of the 5 subcategories to produce scores ranging from 0 to 10. A total difficulties score is derived by adding the scores of each subcategory, except pro-social behavior, to produce a total score ranging from 0 to 40. The SDQ total difficulties score uses a cut-off score of 13 for the normal band, 14 to 16 for the borderline band, and 17 to 40 for the abnormal band. The psychometric properties of the Chinese version of the SDQ have been described as satisfactory.⁶ Patient rating was collected in the current study using the parent SDQ version.

The Screen for Child Anxiety-Related Emotional Disorders (SCARED) was created by Birmaher to assess anxiety disorders in children and to assist psychologists with diagnoses, scientific research, and epidemiological investigations. It

consists of 41 items encompassing 5 factors including somatization/panic, general anxiety, social phobia, school phobia, and dissociative anxiety. It was scored on 3-point scales (0=never, 1=sometimes, and 2=often)^{7,8}. The questionnaire was translated into Chinese. Wang Kai developed the norms of the SCARED for urban Chinese children. The 80th percentile rank of the total score of the norm served as the cut-off score (the total score ≥ 23). Previous use of SCARED in China has shown that it is reliable and valid as a tool for conducting psychometric analysis.⁹

We used an adapted version of the Eysenck Personality Questionnaire (the edition for children, EPQ)¹⁰ which consists of 88 items that use four subcategories: neuroticism, extraversion/introversion, psychoticism, and lie.

Procedure

Two regular and two key middle schools were selected randomly from each school category in Changsha in May 2000. Students were selected using stratified sampling of 1st- and 2nd-year junior and senior middle school students from the four selected middle schools. After the researchers had explained the procedures and requirements, survey participants completed the questionnaires in class. The questionnaires were collected upon completion. Teachers distributed the SDQ questionnaires for students to give to their parents for completion. The questionnaires were collected one week after their distribution. All individuals assisting with the surveys were trained in the survey standards and collection procedures.

All statistical analyses were conducted with SPSS 11.0 for Windows. According to the YDQ criteria, 56 students with Internet Overuse were included in the case group, 56 normal students matched by sex, age, year in school, and class were included in the control group. In addition, a chi-square test was performed to determine if statistical differences existed between the cases and controls.

RESULTS

The mean age of the 2,311 students was 15.04 years (ranging from 12 to 18 years). 2,081 (90%) reported having used the Internet, while 230 (10%) denied previous use. Of the 2,081 students who reported using the Internet, 1,102 were male (53%) and 979 were female (42%) (Table 1).

According to the YDQ criterion, 56 students (2.4%) were Internet overusers. The 56 Internet overusers were comprised of 47 males (84%) and 9 (16%) females.

Eysenck Personality Questionnaire (EPQ) revealed significant differences between the IOU group and the control group (Table 2).

Table 3 shows a comparison of the average TMDS score of the IOU group and the control group. The IOU group displays significant differences in its overall TMDS score in comparison to the control group (differences are also seen in each subcategory of TMDS).

TABLE 1: GRADE AND GENDER DISTRIBUTION OF THE SUBJECTS

Grade	Age	Male students	Female students	Total
	(years)	n (%)	n (%)	n (%)
Grade 1 of junior middle school	12 to 14	323 (52.5)	292 (47.5)	615 (26.6)
Grade 2 of junior middle school	13 to 15	310 (50.8)	300 (49.2)	610 (26.4)
Grade 1 of senior middle school	15 to 17	248 (51.7)	232 (48.3)	480 (20.8)
Grade 2 of senior middle school	16 to 18	302 (49.8)	304 (50.2)	606 (26.2)
Total		1,160 (50.2)	1,151 (49.8)	2,311 (100.0)

TABLE 2: DIFFERENCE BETWEEN IOU GROUP AND THE CONTROL ON EYSENCK PERSONALITY QUESTIONNAIRE (EPQ), (MEAN \pm SD)

Variables	IOU group (n = 56)	Control group (n = 56)	t	p
Extraversion/introversion	17.73 \pm 4.77	18.15 \pm 4.10	0.49	>0.05
Neuroticism	15.09 \pm 5.64	10.18 \pm 5.50	4.66	<0.01
Psychoticism	6.52 \pm 2.80	4.00 \pm 2.33	5.14	<0.01
Lie	8.50 \pm 2.97	11.75 \pm 4.37	4.57	<0.01

TABLE 3: DIFFERENCE BETWEEN IOU GROUP AND THE CONTROL ON TIME MANAGEMENT DISPOSITION SCALE (TMDS), (MEAN \pm SD)

Variables	IOU group (n = 56)	Control group (n = 56)	t	p
Sense of time control	65.25 \pm 15.33	76.86 \pm 16.06	3.91	<0.01
Sense of time efficacy	29.61 \pm 6.71	35.45 \pm 7.00	4.51	<0.01
Sense of time value	35.50 \pm 8.16	39.13 \pm 7.16	2.50	<0.05
Total score	130.36 \pm 26.15	151.43 \pm 27.49	4.16	<0.01

Table 4 compares average SDQ scores of the IOU group and the control group. In comparison to the control group, the IOU group shows significantly higher levels of emotional symptoms, conduct problems, hyperactivity, and overall difficulty scores. Additionally, the IOU group scored lower in pro-social behaviors than the control group.

Similar to the TMDS and SDQ, SCARED also revealed significant differences between the IOU group and the control group (Table 5).

TABLE 4: DIFFERENCE BETWEEN IOU GROUP AND THE CONTROL ON PARENT-RELATED STRENGTHS AND DIFFICULTIES QUESTIONNAIRE (SDQ) SCORES OF THE CHILD, (MEAN \pm SD)

Variables	IOU group (n = 56)	Control group (n = 56)	t	p
Emotional symptoms	3.63 \pm 2.34	2.61 \pm 1.99	2.48	<0.05
Conduct problems	3.70 \pm 1.67	2.33 \pm 1.69	4.29	<0.01
Hyperactivity	5.82 \pm 1.91	3.74 \pm 2.52	4.85	<0.01
Peer problems	2.79 \pm 1.70	3.02 \pm 1.54	0.75	>0.05
Total difficulties	15.93 \pm 5.41	11.62 \pm 5.13	4.25	<0.01
Prosocial behaviors	6.34 \pm 2.32	7.36 \pm 1.53	2.74	<0.01

TABLE 5: DIFFERENCE BETWEEN IOU GROUP AND THE CONTROL ON SCREEN FOR CHILD ANXIETY-RELATED EMOTIONAL DISORDERS (SCARED), (MEAN \pm SD)

Variables	IOU group (n = 56)	Control group (n = 56)	t	p
Somatization/panic	8.59 \pm 6.20	5.20 \pm 4.08	3.40	<0.01
General anxiety	8.93 \pm 4.25	5.63 \pm 3.54	4.46	<0.01
Social phobia	7.45 \pm 3.65	5.45 \pm 3.40	2.98	<0.01
School phobia	3.41 \pm 2.06	1.66 \pm 1.63	4.98	<0.01
Dissociative anxiety	6.09 \pm 3.79	3.41 \pm 2.38	4.48	<0.01
Total score	34.46 \pm 16.30	21.46 \pm 12.50	4.74	<0.01

DISCUSSION

This study focused primarily on exploring psychosocial features of Chinese middle school students with IOU. Our results indicate that some students (2.4%) use the Internet excessively and qualify as IOU. The IOU percentage identified in this study is lower than that found in other similar studies. This lower rate for IOU could be attributed to the different categories and standards applied to our study. However, the male to female ratio for IOU students of 5.2:1 (47 males and 9 females) is comparable to that in other studies, possibly indicating a gender disparity in IOU incidence.^{11,12}

The EPQ results indicated that the IOU group has higher scores in the neuroticism and psychoticism temperament categories than the control group, suggesting that children with high scores in these temperament categories may be more likely to exhibit IOU behavior than their peers. Higher scores in the Lie category may be interpreted as a certain degree of maturity, and may be beneficial for the development of conduct. The IOU group scored lower in the Lie category (which reflects socially desirable responding) than the control group,

suggesting that children who are less mature may be more inclined to become IOUs. Similar research in other countries also demonstrated this phenomenon. In Yang's investigation of personality characteristics of Korean high school students with Internet Overuse using 16-PF, Internet Overusers were found to be easily affected by feelings, emotionally less stable than their peers, imaginative, absorbed in thought, self-sufficient, experimenting, and preferring their own decisions.¹³

The total TMDS score reflects the overall level of an individual's time management ability. An individual's sense of control over time reflects a person's concept and ability to use and manage time. The sense of time efficacy reflects an individual's confidence in time management and his/her own time management conduct ability estimation. The sense of time value reflects an individual's stable concept and attitude towards the value and function of time. IOU students scored lower in the total and each subcategory in TMDS, indicating that in comparison to their peers, the IOU students have less ability in overall time management and in each subcategory time management disposition. IOU students' weaker sense of time management may result in lack of planning for study and daily life, lack of time monitoring, and lack of self management. In comparison to their peers, once the IOU students go online, they may be more likely to lose control over time spent online. Additionally, IOU students' poor time management ability may lead them to allocate and to use time inefficiently and can lead to more emotional and psychological problems.¹⁴

Internet overusers' SDQ difficulty total scores and emotional, conduct, and hyperactivity-inattention scores are all higher than the control group's scores, while their pro-social score was lower than that of the control. The average score on the total difficulties score reported by IOU students was not high enough to indicate a significant abnormality. Nevertheless, the IOU students revealed more psychiatric symptoms than the control group. These results indicate that IOU is related to behavioral and emotional problems. We speculate that the observed difference may be related to several factors. First, IOU students inherently may have more behavioral or emotional problems in their daily lives than members of the control group. For example, IOU students may have conduct, hyperactivity, and concentration problems, which often cause them to be criticized by parents and teachers. Such tendencies may lead these students to use the Internet as a way to vent their anger and to build a sense of achievement. Also, these students may use Internet games and Internet chat rooms to find a sense of self-satisfaction. Second, students who have conduct and hyperactivity-inattention problems are more impulsive than students in the control group. This lack of self-control may in part explain why children with IOU are more likely to be addicted to Internet

usage than their peers. Similar research in other countries has also shown this trend. For example, a study by Yoo et al. reported hyperactivity and attention deficit disorder to be risk factors associated with IOU.¹⁵

The SCARED screen revealed that the IOU students exhibited substantial anxiety-related emotional problems in comparison to the control group as indicated by high total and subcategory scores in the anxiety test (see Table 5). On average, IOU students scored higher than the designated cut-off score for the SCARED screening. A prior study by one of the authors in this study found that symptoms often observed for anxiety disorder among this age group include social phobias, naive behaviors, obsessive-compulsive symptoms, inability to concentrate, aggressive behaviors, unwillingness to obey orders, and reluctance to go to school.¹⁶ These symptoms and related behaviors may lead students to use the Internet as a tool to avoid and relieve the anxiety they experience and obtain some form of emotional balance through such activities.

Internet overuse is a problem that has been observed in different cultures and settings. Griffiths previously showed the potential problems associated with excessive use of technological equipment such as computers, TV, video, and the Internet.¹⁷ Young et al. described Internet addiction through a survey conducted among 596 individuals to further distinguish patterns of use of high-tech equipment.¹⁸ The authors found differences in frequency of use and types of activities between the Internet-addicted group and the control group. They also found Internet addiction to be correlated with academic achievement, relationship, financial and work-related matters, and substance abuse problems. Chou and Hsiao explored Internet addiction in 910 Taiwanese college students with an Internet-related addictive behavior inventory described by Brenner et al. and the YDQ scale similar to the one used in this current study.^{1,19,20} They found that 5.9% of the college students in their study were addicted to the Internet. In addition, they also found high communication pleasure scores to be correlated with Internet-dependence. The study did not find linkages between Internet addiction and hours of Internet use, high email use, or gender. A study among Australian college students, however, found Internet dependency to be independent of the students' psychosocial maturity and general self-efficacy.²¹ In this study, 9.6% of the college students were found to have Internet Addictive Disorder. In the study carried out by Morahan-Martin and Schumacher, the authors found that 8.1% of surveyed US students had four or more symptoms of pathological Internet use.¹¹

In the current study, we found Internet overuse to be 2.4% among the surveyed middle school students. Our results suggest that incidence of IOU is not rare. Chinese middle school students with IOU differ in psychosocial features from control group students. Among the Internet Overusers, boys outnumber

girls. Furthermore, this study could benefit from refinement of the diagnosis of Internet addiction with standardized diagnostic tools to improve the reliability and validity. IOU is a subject that warrants further in-depth study.

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A Comparison Study of Domestic Violence in Hunan, China

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ABSTRACT

This study investigates domestic violence in various geographic settings, age and family groups in Hunan, China. Using a multi-stage sampling strategy, 9,451 households involving 32,720 persons in urban, rural and industrial areas were surveyed. A lifetime history of family violence was reported by 1,533 households (16.2%). A total of 1,098 households (11.6%) reported at least one incident of family violence in the previous year. The lifetime prevalence of spousal, child, and elder abuse was 10.2%, 7.8%, and 1.5%, respectively. The prevalence of domestic violence varied by geographic settings and family compositions. The prevalence of domestic violence in urban, rural, and industrial areas was 17.3%, 5.8%, and 25.0%, respectively. The lifetime odds of spousal and child abuse were significantly higher among industrial district and urban households as compared to rural households. This pattern was reversed, however, for elder abuse, which was significantly less common in urban and industrial areas, as compared to rural areas. These differing patterns may reflect, to some degree, the changing demographic patterns and development in China. In urban areas, the families are increasingly living in nuclear family arrangements. In rural areas, extended families (including the elderly) are still the norm. Households composed of remarriages, couples with one child, and multigenerational families were twice as likely to report a history of family violence as couples with no children.

Studies on the prevalence of domestic violence on six continents show that domestic violence is a near universal phenomenon, affecting individuals in the developed and developing world alike.¹ Research on domestic violence in China, however, has progressed relatively slowly, impeded in part by reluctance on the part of the government to acknowledge domestic violence as a significant social problem.² It was only in 1995 that the Chinese government issued its first clear statement in opposition to family violence.³ In the “Program for Women’s Development, 1995–2000,” submitted to the United Nations’ Fourth World Conference on Women, the Chinese government outlined eleven major planning goals for the development of women by the end of the century. The eleventh planning goal proposed legal protections to ensure the equal status of women in the home. Since then, domestic violence has gradually begun to receive greater attention.

Since the late 1970s, dramatic social and economic reforms have taken place in China. These reforms have significantly altered the nature of domestic life. While economic development has brought drastic improvements in the standard of living, it may also be associated with a weakening of the family and communal relationships that form the backbone of Chinese society.⁴ The rate of divorce has risen exponentially since the 1980s, from 4.7 percent in 1979 to 8.9 percent in 1992 to 19 percent in 2000.² According to the 1994 *White Paper of Chinese Women’s Status*, an estimated one-fifth of divorces in China cited spousal abuse in the divorce documents. A document released by the Hunan division of the Women’s Federation, a government-sponsored agency whose mission is to represent and safeguard women’s rights and interests, showed that nearly one in four requests for assistance in the years 1995 to 1999 were from individuals experiencing family violence.⁵ The severity of reported violence ranged from verbal abuse to deprivation of personal freedom, physical abuse (including genital mutilation), sexual abuse, and murder. In 1999, the Women’s Studies and Information Center in Beijing announced that in its survey of four cities across China, acts of violence between intimate partners happened more frequently in the economically advanced regions along the southeastern coastal areas, providing further evidence of the human costs of economic development and rapid social change.⁶

There has been only one nationally representative survey of intimate partner violence in China to date. The 1999–2000 Chinese Health and Family Survey included a probabilistic sample of the adult population (aged 20–64).⁷ During an hour-long computer-based interview, respondents were asked whether their partner had ever assaulted them (i.e. slapping, hitting, kicking, not including hitting in a joking or playful way). Respondents were also asked whether they had ever assaulted their partner. Out of a sample of 3,323 respondents, 34.0%

reported male-to-female violence and 18.3% reported female-to-male violence. Twelve percent of women and 5.0% of men had been beaten to the point of causing cuts, bruises, bleeding, swelling, or severe pain and injury. Despite evidence of reciprocal violence, these data indicate that women are more likely to be victimized by their male partners and are more likely to suffer serious injury as a result. The rates of male-to-female violence also reported by Parish et al.⁷ are supported by another large-scale study of 23 provinces, municipalities, and autonomous regions conducted jointly by the All-China Women's Federation and the State Statistics Bureau, which showed that 29% of women had been physically beaten by their husbands.³ However, a weakness in both these national surveys is that each assessed only physical assaults between intimate partners and did not assess other forms of violence such as verbal, psychological, and sexual abuse in children and elders.

Despite high profile events such as the 1995 United Nations Fourth World Women's Conference in Beijing, comparatively little is known about the prevalence of child maltreatment and elder abuse.⁸ Some researchers have asserted that the "one-child" policy has had the indirect effect of reducing rates of child abuse and neglect;⁹ however, recent empirical evidence suggests high rates of physical and sexual abuse of children. For example, one survey of 483 schoolchildren in Shanghai and Yanji found that 71% had experienced family violence in the past year.¹⁰ Another study reported that 16.7% of female and 10.5% of male high school students in Hubei, Henan, Hebei, and Beijing reported unwanted sexual experiences prior to age 16.¹¹ However, estimates of the prevalence of child abuse have not been assessed among representative samples of the population. Similarly, although studies of elder abuse conducted in Hong Kong found that approximately 2.0–2.5% of the elders in the study reported physical violence in the past year,^{12,13} population-based surveys of the elderly have not been previously conducted in China.

To date, federal laws prohibiting family violence have not been adopted or enacted in China, though the 2001 Marriage Law assures the fundamental rights of family members to mutual respect and safety. However, there is progress being made at the local level towards establishing greater protections for victims of violence. The south central province of Hunan has led the effort to investigate the problem of domestic violence and develop prevention and intervention strategies. In November 1999, influenced by widely publicized accounts of domestic violence-related deaths, Hunan became the first to pass a provincial regulation outlawing family violence.¹⁴ By the end of 2000, thirteen provinces and municipalities across the nation had drafted local statutes and regulations against domestic violence.¹⁵ (pp179-192)

With the increased awareness of domestic violence as an important public health and mental health issue, we conducted the present study as the first population-based survey to examine the prevalence of domestic violence within various geographic settings and diverse family constellations in China. Unlike previous studies which have focused primarily on physical violence between family members, the present research expands the definition of domestic violence to include physical, mental, or sexual abuse occurring between family members and forms of abuse including spousal, child, and elderly abuse.

METHODS

Sampling procedures

The data for this paper come from our research on “Domestic Violence and Intervention Strategies in Hunan China.” Hunan is an interior province located in south central China. It has an area of 211,800 square kilometers, and is the 11th largest of China’s 31 provinces. Hunan has a total population of 66 million residents, of which 21 million live in urban areas and 45 million reside in rural areas. A multi-stage sample of residences was drawn following standard procedures for complex samples.¹⁶ Detailed descriptive methods have been published elsewhere.¹⁷

1. *Multi-stage sampling*: Because of substantial differences among urban, rural, and industrial areas with regard to culture, economy, and lifestyle, cluster sampling was used to randomly select three research sites to represent the resident population in Hunan. The selected sites were Chenzhou City (urban), Yongshun County (rural), and Xiangtan industrial district, which are located in southern, western, and central Hunan, respectively. Random selection was used to identify several communities, villages, and factory compounds within each of these three areas for sampling.

2. *Evaluating sample size*: Because the present study was planned prior to the release of findings from the Chinese Health and Family Survey, sample size calculations were based on prevalence estimates drawn from Western population-based epidemiologic literature, which indicate that 10–28% of families report a lifetime history of family violence.^{18,19} Therefore, 30% was hypothesized as an estimate of the prevalence of family violence in the present study. Measurement error was estimated at 1% in the study. According to the formula of evaluating sample size: $n=4p(1-p)/d^2$, where n refers to sample size, p represents the estimated prevalence in the population, and d refers to allowed error, the minimum sample size needed was estimated at 8,400 households:

$$n=4 \times 0.3 \times (1-0.3)/0.01^2 = 8,400 \text{ (households)}$$

However, considering the complexity involved in assessing family violence, the target sample size was enlarged to at least 9,000 households. A total of 9,451 families involving 32,720 individuals were selected randomly: 3,087 families involving 8,975 people from Chenzhou; 3,070 families involving 13,210 people in Yongshun; and 3,294 families involving 10,535 people in Xiangtan. All members of the household over six years old (including extended-family members) were surveyed for their experiences as both a victim and perpetrator of abuse. Child abuse was designated in cases where the victim was less than 18 years of age. Incidents of child abuse were predominantly reported by the head of household or the adult perpetrators themselves although some incidents were reported by the children themselves with parent or teacher consent. Elder abuse was designated in cases where the victim was 60 years old or older and the perpetrator was a family member other than a spouse (e.g., an adult child abusing a parent or grandparent).

Definition of Domestic Violence

In this study, domestic violence was defined as physical, mental, or sexual abuse occurring between family members, including hitting, slapping, kicking, verbal insults, threats or intimidation, social isolation, deprivation, neglect, and sexual assault,¹⁴ regardless of whether the abuse occurred inside or outside the home. Social isolation included depriving another of freedom, or forbidding contact with individuals outside of the family.

Questionnaire Design and Staff Training

In this paper the data reported were collected using a 10-item semi-structured screening questionnaire that took approximately 3–5 minutes to administer. The questionnaire began with demographic questions regarding age, gender, family structure, and number of family members in the household. Next, respondents were presented with a list of abusive behaviors, followed by three questions regarding their personal experiences with domestic violence: “Have you ever been a victim of any of the following behaviors from members of your family?,” “Have you ever been a perpetrator of any of the following behaviors towards members of your family?,” and “Have you ever witnessed any of the following behavior between members of your family?” The types of behaviors included on the list were as follows: (1) verbal insults, (2) physical beating with bare hands, such as slapping, grabbing, shoving, choking, biting, kicking, punching, or hair-pulling, (3) physical beating with implements such as binding, whipping, burning, etc., (4) destroying furniture or other home furnishings when angry with family members, (5) causing suffering through such acts as forcing someone to do heavy labor, using threats or intimidation, limiting food consumption and/or

adequate clothing, forcibly restricting one's personal freedom, or forbidding contact with individuals outside the family, (6) physical neglect or abandonment, (7) sexual assault, (8) murder, or (9) other violent behaviors. If the respondent answered "yes" to any of the questions, he/she was to specify the nature of the relationship (i.e. to/by a young child, adult child, marital partner, parent, elder, sibling, other) as well as the time frame (i.e. within the last 12 months or more than 12 months ago). Lifetime prevalence was defined as any incident of family violence reported by the respondent, including events occurring within the past 12 months.

An interdisciplinary team of thirty investigators including psychiatrists, physicians working in the provincial department of public health, psychologists, and officials in the Women's Federation collaborated in the present study. All members of the research team were college-educated and had several years' experience in social or clinical work. The college-educated staff included nine people with a master's or doctorate degree, and fifteen with middle and senior professional titles. All participated in three days of systematic training which provided an overview of the goals, procedures, and content of the survey, and instruction in interviewing techniques and communication skills.

Inter-rater reliability of the screening questionnaire was excellent, yielding a pairwise agreement rate of 0.97 for 25 interviewers assessing the same 10 families.²⁰ Validity was evaluated using pilot interviews conducted with 100 randomly selected families. Sensitivity of the measure was 95%, and the specificity was 100%.¹⁷ The incidence of specific types of violent behaviors was not assessed separately, because family violence often involves a combination of assaultive behaviors, verbal abuse, sexual aggression, and intimidation.²¹

Data Collection

The investigation was conducted between December 2001 and November 2002. In each geographic area studied, there were several survey teams. Each team was composed of at least one male and one female interviewer. A combination of multiform clue investigation and face-to-face interview procedures was adopted in accordance with the design and family violence screening protocol adopted in the present investigation.^{14,17} The multiform clue investigation referred to supplemental information obtained from multiple sources, such as colleagues, community leaders, teachers, relatives, neighbors, and friends. It was used to address respondents' tendency to underreport domestic violence. Interviewers also made repeated visits to respondents' homes in order to obtain complete data. In short, extensive measures were taken to keep the level of underreporting of abuse as low as possible.

The oral and written instructions emphasized that the primary goal of this study was to document all of the respondents' experiences with domestic violence and identify strategies for helping victims attain a higher quality of life. Respondents were informed that the survey was entirely voluntary and confidential; after they had an opportunity to ask questions, individuals who agreed to participate provided both oral and written informed consent, and in the case of illiterate respondents, only oral informed consent was obtained. To protect respondents' privacy, interviews usually took place in a location of the respondent's choosing, such as in a private room, a meeting facility, or in a chosen outdoor field. Wherever possible, family members were interviewed separately in order to guard against risk of harm as a result of disclosing family violence to the interviewers. In addition, many schoolchildren were interviewed at school with full consent of school officials, in order to protect the confidentiality of their responses. These precautions assisted in the establishment of rapport and the development of an atmosphere of safety and trust. Many respondents made it clear that they were in favor of us carrying out the current study, and many victims stated that they appreciated the opportunity to talk with others about their private pain stemming from family violence.

Quality Control

To monitor data quality, a three-grade supervisory system was established that included the Task Responsibility Unit, the Coordinating Unit, and the Survey Team Supervision Unit. This arrangement helped to identify and resolve problems early in the data collection process. In the first round of review, both survey team supervisors examined all aspects of the data for inconsistencies, spending at least 60 days reviewing data collected from each survey region. A second review involving spot investigations and checking for missing data was carried out by the task responsibility unit. For cases of missing data, supplemental interviews were carried out by the survey teams in October and November 2002. This multi-stage review process carried out over two months helped to ensure quality and accuracy of data reporting.

Data Analysis

Data are reported on lifetime and 12-month prevalence rates for any family violence, spousal violence, child and elder abuse. Simple cross-tabulations were performed to calculate prevalence rates. Chi-square tests were conducted to explore the unadjusted relationship between geographic setting and household setting with family violence. Family violence was scored dichotomously as either present or absent in the household.

RESULTS

Demographic Characteristics

A total of 9,451 families involving 32,720 people were surveyed in the present study. The interview subjects consisted of 18,421 (56.3%) men and 14,299 (43.7%) women between the ages of 5 and 88 years old. Household size ranged from 1 to 14 family members, with an average of 3.5 family members. The gender distribution and average household size of the sample was comparable to that recorded in the 2000 Hunan census ($p > 0.05$).²²

There was an average of 3.5 ($SD = 1.2$) family members within each household in the study. With regard to household composition, over 40% were couples with one child ($n = 4,025$), 14.9% ($n = 1,410$) were multigenerational families, 19.9% ($n = 1,878$) were couples with more than one child, 13.3% ($n = 1,261$) were couples with no children, 4.7% ($n = 442$) were single-parent families, 2.0% ($n = 190$) were families joined by remarriage, and 2.6% ($n = 245$) reported other household compositions. Chi-square tests revealed that the distribution of households varied by geographic location [$\chi^2(12, N = 9,451) = 3,345.22, p = 0.000$] (see Table 1). Pairwise tests revealed that compared to urban and industrial households, a significantly greater proportion of rural households consisted of couples with more than one child and multiple generations living under the same roof (all $ps < .0001$). Contrasting the rural household comparison, a significantly greater proportion of industrial and urban households consisted of couples with only one child or no children at all. Urban households were distinguished by a greater proportion of remarriages compared to rural and industrial households; rural households had significantly fewer remarriages, as compared to the other two geographic groups. Finally, compared to those in industrial areas, single-parent families comprised a greater proportion of households in urban and rural areas. Reported pairwise differences were all significant at $p < .0001$. (See Table 1)

Prevalence of Domestic Violence

The lifetime prevalence of any form of family violence within the household was 16.2% (95% confidence interval [CI], 15.5–16.9); the 12-month prevalence rate was 11.6% (95% CI, 10.9–12.3). Approximately 10% of households reported a lifetime history of spousal abuse (95% CI, 10.9–12.3); 5.0% reported an act of spousal violence within the previous year (95% CI, 3.6–6.9). The lifetime prevalence of child abuse was 7.8% (95% CI, 7.3–8.3), while the 12-month prevalence was 4.6% (95% CI, 3.1–6.1), respectively. Lifetime and 12-month prevalence rates of elder abuse were 1.5% (95% CI, 1.3–1.7) and 0.9% (95% CI, 0.1–1.7), respectively. (See Table 2)

Comparison on Domestic Violence by Geographic Setting

Both lifetime and 12-month prevalence rates of any form of family violence varied significantly by geographic setting [$\chi^2(2, N=9,451)=434.48, p=0.000$, and $\chi^2(2, N=9,451)=300.78, p=0.000$, respectively]. The associations between geographic setting and lifetime domestic violence are presented in Table 2. The lifetime odds of spousal and child abuse were significantly higher among industrial district and urban households as compared to rural households. The relative odds of lifetime spousal violence for industrial district households and urban households versus rural households were roughly 5:1 and 4:1, respectively. For child abuse, the relative odds for industrial and urban versus rural households were approximately 42:1 and 14:1, respectively. This pattern was reversed, however, for elder abuse, which was significantly less common in urban and industrial areas compared to rural areas (relative odds 0.3:1 and 0.4:1, respectively).

An identical pattern of associations was also reported for 12-month prevalence of spousal abuse, child abuse, and elder abuse (all with $p<.0001$, not shown). The 12-month prevalence of any form of family violence was 18.1% for industrial households, 12.1% for urban households, and 4.2% for rural households. Twelve-month prevalence rates for spousal abuse were 7.7% for industrial households, 4.4% for urban households, and 2.5% for rural households. Prevalence of child abuse showed even more variation: 11.3% of industrial households, 1.7% of urban households, and 0.4% of rural households reported acts of child abuse in the previous 12-month period. Again, a reversal of this trend was found for elder abuse. The rural site reported the highest 12-month prevalence rate (1.8%), which was significantly higher than the industrial (0.7%) and rural sites (0.2%).

TABLE 1: DISTRIBUTION OF RESPONDENT HOUSEHOLDS BY FAMILY COMPOSITION AND GEOGRAPHIC SETTING

Family Composition	Rural area	Urban area	Industrial district	Total Sample
	N=3070 n (%)	N=3087 n (%)	N=3294 n (%)	N=9451 n (%)*
Couple with no children	169 (5.5)	628 (20.3)	464 (14.1)	1,261 (13.3)
Couple with 1 child	477 (14.6)	1,648 (53.4)	1,930 (58.6)	4,025 (42.6)
Couple with >1 child	1,381 (45.0)	212 (6.9)	285 (8.7)	1,878 (19.9)
Multigenerational family	795 (25.9)	134 (4.3)	481 (14.6)	1,410 (14.9)
Remarriage	48 (1.6)	114 (3.7)	28 (0.9)	190 (2.0)
Single-parent family	195 (6.4)	172 (5.6)	75 (2.3)	442 (4.7)
Other	35 (1.1)	179 (5.8)	31 (0.9)	245 (2.6)

* $\chi^2(12, N=9,451)=3,345.22, p=0.000$

TABLE 2: COMPARISON OF TYPES OF DOMESTIC VIOLENCE: LIFETIME PREVALENCE AND RELATIVE RISK RATIOS BY GEOGRAPHIC SETTING AND HOUSEHOLD COMPOSITION

Characteristic	%					Relative risk ratios (95% confidence interval)				
	(N=9451)	Any Domestic Violence	Spousal Abuse	Child Abuse	Elder Abuse	n/a	Any Domestic Violence	Spousal Abuse	Child Abuse	Elder Abuse
Total sample	100	16.2	10.2	7.8	1.5	n/a	n/a	n/a	n/a	n/a
Geographic Setting										
Rural area	32.5	5.8	3.3	0.5	2.6	1.0	1.0	1.0	1.0	1.0
Urban area	32.7	17.3	12.4	5.9	0.8	3.4	4.2	13.8	7.97-23.74)**	0.3**
Industrial district	34.9	25.0	14.5	16.3	1.0	5.4	5.0	42.5	(3.36-5.29)**	(0.20-0.50)
										0.4**
										(0.25-0.60)
Household Composition										
Couple with no children	13.3	10.6	9.0	2.3	0.2	1.0	1.0	- ^a	- ^a	- ^a
Couple with 1 child	42.6	20.1	12.5	10.4	0.6	2.1	1.4	1.0	1.0	1.0
Couple with >1 child	19.9	11.0	7.1	3.4	2.1	1.0	0.8	0.3	0.3	3.8**
Multigenerational family	14.9	20.0	11.4	12.4	4.1	(0.82-1.31)	(0.59-1.00)*	(0.23-0.10)**	(0.23-0.10)**	(2.26-6.34)
Remarriage family	2.0	21.0	14.7	7.9	2.6	(1.68-2.62)**	(1.01-1.67)*	(1.01-1.48)*	(1.01-1.48)*	(4.59-12.15)
Single-parent family	4.7	8.1	2.7	4.8	0.7	(1.52-3.32)**	(1.11-2.71)*	(0.43-1.27)	(0.43-1.27)	(1.77-12.51)
Other	2.6	9.8	4.9	5.3	2.9	0.7	0.3	0.4	0.4	1.2
						(0.51-1.10)	(0.15-0.51)**	(0.28-0.68)**	(0.28-0.68)**	(0.36-3.98)
						(0.58-1.44)	(0.28-1.00)*	(0.28-0.86)*	(0.28-0.86)*	5.1**
						$\chi^2=159.60^{**}$	$\chi^2=85.73^{**}$	$\chi^2=190.37^{**}$	$\chi^2=106.71^{**}$	

* $p < .05$

** $p < .0001$

^a Couples with no children were excluded from these comparisons because typically both children and elderly are absent in these households.

Note: Demographic characteristics refer to current household characteristics, whereas the rates reported are lifetime prevalence rates.

Comparison of Domestic Violence by Family Composition

Both lifetime and 12-month prevalence rates of any form of family violence varied significantly by household composition [lifetime $\chi^2(6, N=9,451)=159.60, p=0.000$ and 12-month $\chi^2(6, N=9,451)=62.26, p=0.000$]. As shown in Table 2, families composed of remarriages, couples with one child, and multigenerational families were twice as likely to report a history of family violence as couples with no children (Odds Ratios [ORs] ranging from 2.1–2.2). In particular, among all groups examined these three groups were associated with the highest risks of spousal abuse (ORs ranging from 1.3–1.7). Compared to couples with one child, couples with more than one child and single-parent households had a significantly lower relative risk of lifetime child abuse (ORs 0.3 and 0.4, respectively), while multigenerational families were at elevated risk for lifetime child abuse (OR 1.2:1). By definition, multigenerational families were approximately seven times more likely than couples with one child to report a lifetime incidence of elder abuse; couples with more than one child, remarriages, and single-parent families were also at significantly higher risk for elder abuse (See Table 2).

DISCUSSION

Using data from a population-based probability sample, this study presents the first combined household estimates of the prevalence of domestic violence involving spouses, children, and the elderly. It is also the first comparison study in various geographic settings and various family compositions in China. Results indicate that domestic violence affects roughly one out of six families in Hunan, China, with one out of ten reporting abuse within the previous year. Spousal and child abuse were the most common forms of family violence, reported in 10.2% and 7.8% of households, respectively. Rates of elder abuse were substantially lower, at a rate of 1.5%. While these figures appear to contradict the higher prevalence rates reported in other surveys of intimate partner violence⁷ and child abuse in China,^{10,11} it is important to acknowledge the differences in the sampling unit across studies. While other studies cite the percentage of individual men, women, boys, and girls who have experienced acts of physical violence, the present study reports the percentage of households affected by family violence, with data provided by all members of the household over the age of five years old.

Furthermore, the wide variability in sampling procedures, inclusion criteria, definitions of domestic violence, assessment procedures, and question wording makes it exceedingly difficult to compare the present results to other population-based studies conducted both inside and outside of China. Nevertheless, with

regard to spousal abuse in particular, it appears that the prevalence rates found in the present study are lower than what would be expected, given previous reports. As mentioned earlier, two national surveys conducted in China showed that physical violence towards women was reported by approximately 30% of adults in intimate relationships.⁷ In contrast, the present study found a 10.2% household prevalence of spousal abuse, despite the fact that a broader definition of abuse was applied.

The comparatively lower rates of violence found in the present study may be interpreted in a number of ways. First, while we have little reason to suspect that this is the case, it is possible that domestic violence occurs less frequently in Hunan, as compared to other provinces in the country. Unfortunately, because other national estimates of domestic violence have not included data from Hunan,⁷ additional studies are needed to rule out this possibility. A second, and perhaps more likely explanation has to do with regional variation in norms regarding violent behavior in familial relationships.²³ Because most Chinese recognize some degree of fighting and quarreling in the family as normative behavior, estimates of family violence are likely to be affected by differences in community and individual thresholds for judging a behavior as abusive. The idea that physical beatings are a valid method of providing corrective feedback, and thus expressing familial love, is revealed in a number of traditional proverbs, e.g., “Beating and scolding help children grow up to become talented people,” “Beating and scolding are a special expression of care and concern,” and “Education by beating can forge a good man.” Community attitudes that condone a certain degree of domestic violence may lead to underreporting by both victims and perpetrators in cases where the abuse is not perceived as severe enough to warrant designation as “domestic violence.” A recent study conducted in Hunan found that 29.1% of Chinese perpetrators and 21.9% of Chinese victims of domestic violence condoned violence as a normative conflict resolution strategy; an additional 51.7% of perpetrators and 40.6% of victims condoned family violence under certain circumstances.²⁴ Moreover, one in six victims of family violence in Hunan blamed themselves for the abuse (e.g., they talked too much, did not work hard enough, etc.).²⁵ Within this cultural context, it seems likely that the prevalence rates found in the present study are an underestimate of the true prevalence of family violence in the population.

Other comparison studies also showed that violence risk was associated with geographic setting and household composition. While Parish et al. found that intimate partner violence was more common in rural areas versus urban, our results are consistent with other surveys which have found the reverse trend.⁶ In the present study, spousal and child abuse were much less common in rural

households compared to households in urban and industrial settings. The lifetime odds of spousal and child abuse were significantly higher among industrial district and urban households compared to rural households. The relative odds of lifetime spousal violence for industrial district and urban households versus rural households were roughly 5:1 and 4:1, respectively. For child abuse, the relative odds for industrial and urban versus rural households were approximately 42:1 and 14:1, respectively. Given these conflicting results, it is again important to consider regional response styles as a possible source of measurement error. The lower prevalence rate of domestic violence found in the rural sample of our study should be interpreted against the finding that 83.5% of rural victims of violence in Hunan felt that family violence was acceptable under certain circumstances.²⁶ As suggested earlier, such widespread community acceptance of domestic violence may have raised the threshold for reporting domestic violence for our rural sample, in particular. Furthermore, in contrast to the escalating divorce rates in urban areas, family cohesion may be higher in rural areas out of sheer economic necessity. In agricultural areas especially, family members must work together to keep the household and farm running. This financial interdependence may serve to create more tight-knit households, which may lead to greater acceptance of violent behaviors within the family. A qualitative study of battered women in rural China provides some support for this theory. In commenting on their subjects, the authors wrote that “to them, it is perfectly reasonable and normal for a couple to use violence to resolve marital conflicts. They expressed their ideas calmly and rationally, as if they were explaining that it snows in the winter and rains in the summer.”²⁷ This acceptance was reflected in the language used to describe experiences of marital violence; all women used the word “fighting” to describe their husbands’ violence, rather than the word “beating.” And although the women had been in abusive relationships for an average of five years, eight out of ten reported that they were “satisfied” or “very satisfied” with their marriages and family lives.²⁷ However, the pattern mentioned above was reversed for elder abuse, which was significantly less common in urban and industrial areas, as compared to rural areas (relative odds 0.3:1 and 0.4:1, respectively). One explanation for this may be that multigenerational families are less likely in urban areas. Furthermore, the multigenerational families were more likely to report a lifetime incidence of elder abuse. Thus, it is not surprising that the elderly are at greater risk in rural areas.

Our study also showed that households living in the industrial district reported the highest rates of domestic violence. This may be due to the fact that families living in these areas, while exposed to many more business opportunities, have also been most affected by the disintegration of many state-run enterprises over

the last five years. Although not directly assessed in the present study, economic distress, including objective financial difficulties as well as subjective stress and worries about money, has been empirically linked to family violence via a number of causal pathways.^{28,29}

The present study also examined whether rates of violence differed by household composition. We found that the prevalence of domestic violence is highest among such “three-person families,” remarriages, and multigenerational families, suggesting that there are unique constellations of risk surrounding these particular family groupings.

With the modernization of Chinese society, the multigenerational family so common in ancient China has been gradually replaced by the nuclear family. Since the passage of China’s one-child policy, families consisting of two parents and their biological offspring have become the norm, especially in urban areas. In particular, spousal and child abuse were reported in 12.5% and 10.4% of households of nuclear families, respectively. According to a number of studies conducted in China, child education is one of the top-ranked reasons why physical violence occurs in the home.^{30,31,32} Again, a review of ancient proverbs reveals that physical punishment of children is grounded in the principle of “rigorous control.” Given the restriction on the number of children allowed per household, Chinese parents hold high hopes that their child will grow up to be successful, enabling them to live comfortably in old age. As a result, many of them are very strict with their children, using physical beatings as an educational strategy.³³

The prevalence of spousal violence was highest among remarriages, where one or both of the partners were previously married to someone else. Although divorce is becoming increasingly more common in China, to some extent divorcees (women in particular) continue to be stigmatized by society and blamed for the failure of their marriages. Given the added challenges associated with merging households, especially when a child is involved, remarriages may be vulnerable to high levels of marital stress that may escalate to violence in some couples.

Rates of all three types of abuse were elevated in multigenerational families. The simplest explanation is that with increased household density, there is greater risk for family conflict. Overcrowded living conditions, a lack of privacy, and caregiver burden may serve to stress the multigenerational relationships between family members.¹ Fantuzzo et al. found that children were disproportionately present in households with spousal violence, and that an average of 20% of abused women across sites indicated that their child was a factor in the eruption of the dispute.¹⁸ Yan and Tang’s study of elder abuse in Hong Kong families showed that elders who were dependent on their adult offspring for

caregiving were more vulnerable to the latter's abusive behaviors.¹² Another aspect not to be overlooked is the elevated prevalence in multigenerational families. The violence may be passed down through generations—a violent parent may raise a child who is also violent. When elder abuse occurs, in some cases the son or daughter who is abusive to the elderly parent has been raised in a violent household. The elderly parent may now be frail and unable to defend himself or strike back, but may have himself been abusive in younger years.

Despite the present study's finding of a 16.2% household prevalence of domestic violence, a lower number than estimated by other reports, this is still a significant number given China's population. Because there are approximately 350 million households in China, this prevalence indicates that 57 million households are affected by domestic violence.

In conclusion, this study indicates that domestic violence is a significant public health problem in China. The primary weakness of this study is its reliance on a relatively brief screening measure for estimation of population prevalence rates. Upcoming reports, based on more comprehensive interviews with a subset of the original sample, will examine the correlates, causes, and consequences of family violence. Although we have tried here to ground these findings in the larger context of China's modernization, additional studies are needed to systematically examine how the problems and promises associated with China's booming economy are affecting conceptions of marriage and family, traditional values of patriarchy and filial piety, and tolerance for violence within the home. Further considerations will be taken.

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The Attitude of Schizophrenic Patients, their Caregivers, and Clinicians Towards Informed Consent to Psychiatric Care

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ABSTRACT

We conducted a survey of 55 schizophrenic patients, 46 caregivers, and 61 psychiatrists to investigate the attitude of schizophrenic patients, their family caregivers, and their clinicians towards informed consent to psychiatric care using the Informed Consent Attitude Survey Questionnaires. Our result showed that answers to 17 of the 35 questions in the survey differed significantly between schizophrenic patients, family caregivers, and clinicians, on topics including general perception, information supply, decision-making competence, coercion, decision-making procedures, and confidentiality. Our results indicate that the knowledge and attitudes towards Informed Consent for psychiatric care varied significantly between schizophrenic patients, their caregivers, and psychiatrists.

Key Words: Informed consent; schizophrenic patient; caregiver; psychiatrist

The idea that the clinical practitioner should avoid anything that could be detrimental to the patient is expressed in the Hippocratic Oath, an oath traditionally taken by physicians pertaining to the ethical practice of medicine that can be traced back to the ancient Greek physician Hippocrates of Cos in 400 B.C. This oath can be interpreted as a paternalistic approach to the ethical conduct of physicians, implying that only the clinical practitioner knows what is best for a patient; the patient in this context assumes a purely passive role. More recently, however, the idea of “informed consent” has been widely promoted as a means to ensure that a human subject involved in a clinical or research project is also an “autonomous” human being, possessing all fundamental rights and deserving full respect.¹

The concept of informed consent finds its roots in the US, a country with a long tradition and history of commitment to individuality and rights. Informed consent can be seen through at least two lenses.² The first relates to the concept of autonomous authorization of a medical intervention. This position is in direct contrast to the separately conceived paternalistic concept of the clinical practitioner acting in the patient’s best interest.^{3,4} A second alternative concept mandates that a legally valid consent be obtained prior to a medical procedure, thereby placing informed consent in the realm of social rules and institutional contexts.² The components of informed consent include voluntariness, competence, understanding, disclosure, and consent.⁵

Similar to their Western counterparts, Chinese clinical practitioners have traditionally tended to assume patriarchal roles in clinical interactions with their patients. Recently, however, increasing numbers of Chinese people have begun to emphasize the rights of the individual, and China has recently adopted legal proceedings to make informed consent a legally binding requirement for clinical practitioners. Item 26 of the recently published “Law of Chinese Certificated Doctors” specifically states that “doctors should provide information about the patient’s diagnosis, medical care procedure, and other related medical conditions to the patient himself or his caregivers, but should take precautions to avoid bringing harmful consequences to patients. If a doctor is to carry out experimental clinical treatment on a patient, he/she should first get permission from the hospital and the patient himself or his caregivers.” With the goal of strengthening the actual implementation of the informed consent process, the “Regulation on the Handling of Medical Accidents” implemented on September 1, 2002 and its supplemental items further explained and emphasized the importance of informed consent to ensure that patients or caregivers have complete self determination in deciding whether or not the patient should receive clinical treatment.⁶

However, psychiatric care presents more difficulty for the implementation of informed consent in comparison to other practices. For example, schizophrenic patients in our study are special persons whose abilities for reality testing and judgment are impaired, and who often have no or only limited insight into their own mental condition. Consequently, the informed consent of these patients may be very different from other patients. Therefore, examining how schizophrenic patients, their caregivers and doctors recognize the informed consent mechanism and their attitudes towards the informed consent procedure is a critical part of successful implementation of the legally binding informed consent process and its subsequent improvement. In an effort to guide our own implementation of the informed consent process in our clinical work, we conducted a survey regarding the attitudes towards the informed consent process among patients, their family members/caregivers, and doctors.

METHODS

Sample

All potential subjects who met the criteria set forth by the study (see below) were given both oral and written informed consent, and those who had difficulty with reading were given oral informed consent. Those who consented to participate in the study were included in the study.

Fifty-five schizophrenic patients receiving inpatient care at the Mental Health Institute of Xiangya Second Hospital of Central South University and 46 of their family members/caregivers were recruited for this study. In this study, patients were chosen first, followed by their caregivers. Because some caregivers refused to take part in this research, the caregiver sample size is smaller than that of patients.

Clinicians who participated in this study included 61 psychiatrists, graduate students (medical), and visiting medical clinicians working or studying at the Mental Health Institute of Xiangya Second Hospital of Central South University.

Inclusion Criteria of the Sample

Schizophrenic patients:

1. Receiving inpatient care at the Mental Health Institute of Xiangya Second Hospital of Central South University
2. 18–60 years old
3. Diagnosed as schizophrenic according to the Diagnostic & Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) standard (diagnosed by the chief-doctor in inpatients wards)

4. Able to complete the questionnaire
5. Lacking other neuropsychosis that influences cognitive function

The family caregivers:

1. Family members of patients participating in the study
2. 18–60 years old
3. Guardian of the patient
4. Able to complete the questionnaire
5. Lacking other neuropsychosis which influences cognitive function

Clinicians:

1. Psychiatrists, graduate students (medical), and visiting medical clinicians working or studying at the Mental Health Institute of Xiangya Second Hospital of Central South University
2. 18–60 years old
3. Able to complete the questionnaire
4. Lacking other neuropsychosis which influences cognitive function
5. Professional title: resident or higher

Instruments

The “Attitude Towards Informed Consent Questionnaire” (draft form) was developed to evaluate the attitudes and knowledge of patients, family caregivers, and clinicians. It is a semi-structured survey questionnaire, with all questions using descriptive language to convey specific items that are included in the informed consent procedure. The questionnaire includes 35 questions that cover six different topic areas including:

1. General perception (items 1–5, 35);
2. Information supply (items 17–19, 23–26);
3. Decision-making competence (items 8, 9, 10, 34);
4. Coercion (items 14–16);
5. Procedure of decision-making (items 6, 7, 11–13, 31–33);
6. Confidentiality (items 20–22, 27–29, 30).

Study Procedure

Subjects were recruited at the Mental Health Institute of Xiangya Second Hospital. Those who met the inclusion criteria and agreed to participate in this study after the informed consent procedure were included in our study. Patients, caregivers, and clinicians were administered the questionnaires separately. A total of 55 patients, 46 caregivers, and 61 clinicians participated in this study. Most

patients who participated in this research did the survey after their symptoms had improved. Thirty-five patients were also evaluated using the Brief Psychiatric Rating Scale (BPRS).

Statistical Analysis

SPSS 11.0 was used for non-parametric tests to compare the attitudes of patients, their caregivers, and clinicians towards the process of informed consent. There are significant differences when $p < 0.05$.

RESULTS

The average age of the 55 patients in our study (19 male, 36 female) is 27 ± 10 years. Of the 35 patients evaluated with the BPRS, their average BPRS value is 37.8 ± 12.3 . The average age of the 46 caregivers (26 male, 20 female) is 40 ± 12 years. The average age of the 61 clinicians (38 male, 23 female) is 31.8 ± 8.2 years.

Significant differences were found between the three subject groups in their answers to 17 of the 35 items in the survey questionnaire: these in turn indicated differences between the three groups in all six elements of the informed consent process including “general perception,” “information supply,” “decision-making competence,” “coercion,” “decision-making procedure,” and “confidentiality.” The following sections list the items where we found significant differences with the exception of item 12.

General Perception

As shown in Tables 1 and 2, patients, caregivers, and clinicians differed in their perception about the purpose of informed consent as well as the circumstances under which informed consent is required. While the majority of patients, caregivers, and the vast majority of clinicians thought obtaining a signed informed consent “protects not only clinicians, but also patients,” only 21.7% of the caregivers and 26.5% of the patients, and even fewer clinicians (1.6%) thought informed consent is for the protection of patients. We observed that the patient and caregiver groups differed from the clinician group once again when the three groups were asked whether informed consent should be administered if a certain party requested such procedure (Table 2). While most patients and caregivers felt that administering informed consent should be based on “a guardian or patient’s requirement,” most clinicians agreed with the assertion that it should depend on the court’s requirement.

TABLE 1: ANSWERS TO ITEM 4 OF THE QUESTIONNAIRE:
 “The purpose of a patient signing an informed consent form for medical care is to:” (%)

	Patients	Caregivers	Clinicians
Protect the doctors	2.0%	8.7%	6.6%
Protect the patients	26.5%	21.7%	1.6%
Protect both the doctor and the patient	67.4%	59.2%	90.2%
Not clear	12.2%	2.2%	1.6%

$\chi^2=6.7, p=0.035$

TABLE 2: ANSWERS TO ITEM 35 OF THE QUESTIONNAIRE:
 “Whether to obtain a patient’s informed consent for clinical care is determined by” (%)

	Patients	Caregivers	Clinicians
Requirement by the court	12.0%	4.3%	49.2%
Requirement by relevant institutions	2.0%	2.2%	16.4%
Requirement by patients or guardians	57.1%	67.4%	19.7%
Requirement by clinicians	28.6%	26.1%	6.6%
Not clear	0.0%	0.0%	8.2%

$\chi^2=29.9, p=0.000$

Information Supply

Tables 3–5 list the responses from the three groups on questions regarding information supply. Again, we observed patients and caregivers holding different views from those of clinicians. While most patients and caregivers would like to receive information patients regarded as necessary, most clinicians in the survey would only like to provide information they themselves deemed necessary. When the three groups were asked how doctors should disclose treatment plans (Table 4), the majority of the patients and caregivers in our survey believed that clinicians should present the treatment plan which the clinicians deemed most appropriate for the patients. The clinicians appeared to favor presenting treatment plans only to those patients who had partial or full insight, a view not shared by any of the patients or caregivers in the survey. This same sharp divide also appeared in subjects’ views about the type of information clinicians should supply to patients (Table 5). Here, half of the clinicians again favored their judgment of what information might be relevant for patients, whereas close to half of both patients and caregivers regarded all information as necessary.

TABLE 3: ANSWERS TO ITEM 18 OF THE QUESTIONNAIRE:
 “What kind of information should the doctor give to a
 schizophrenic patient about his/her disorder?” (%)

	Patients	Caregivers	Clinicians
No information	2.0%	13.0%	0.0%
Only name of the disorder	6.0%	2.2%	3.3%
Only information deemed necessary by the patients	52.0%	54.3%	11.5%
All information	40.0%	30.4%	8.2%
All information during treatment	0.0%	0.0%	32.8%
Only information deemed necessary by the clinicians	0.0%	0.0%	44.3%

$\chi^2=71.1, p=0.000$

TABLE 4: ANSWERS TO ITEM 23 OF THE QUESTIONNAIRE:
 “How should the doctor present the treatment plan to a schizophrenic patient?” (%)

	Patients	Caregivers	Clinicians
Present the patient no treatment plan	0.0%	10.9%	0.0%
Present the patient the treatment plan which the doctor thinks is the most appropriate	58.0%	69.6%	36.1%
Present the patient with various treatment alternatives	18.0%	10.9%	11.5%
Not sure	26.0%	8.7%	3.3%
Present the treatment plan only to patients who have partial or full insight	0.0%	0.0%	49.2%

$\chi^2=35.0, p=0.000$

TABLE 5: ANSWERS TO ITEM 25 OF THE QUESTIONNAIRE:
 “What kind of information should the doctor introduce to a schizophrenic patient
 regarding his treatment?” (%)

	Patients	Caregivers	Clinicians
No information	6.0%	6.5%	0.0%
Only the medication name	4.0%	8.7%	3.3%
Only the information which the patient thinks is necessary	38.0%	43.5%	21.3%
All information (e.g. risks, benefits, cost, duration, dosage and so on)	52.0%	41.3%	24.6%
Only the information which the clinician thinks is necessary	0.0%	0.0%	50.8%

$\chi^2=36.6, p=0.000$

Decision-making Competence

As shown in Table 6, one-third of the patients and most caregivers and clinicians felt that patients should only be making the decision about treatment acceptance when they are well enough to be released from the hospital. Twenty percent of the patients thought that a patient should be able to decide on this matter at any time, a view shared by few caregivers or clinicians. A similar result was seen when the subjects were asked about decision-making during acute stage of illness. While 14% of patients still insisted that they should decide on whether or not to receive medical care, none of the caregivers or clinicians agreed with this view. Our question regarding use of proxy indicates that most caregivers and clinicians agreed or totally agreed to the existence of proxy, while only one-half of patients agreed or totally agreed with this view (Table 7).

TABLE 6: ANSWERS TO ITEM 8 OF THE QUESTIONNAIRE:
 “When can the schizophrenic patient make the decision regarding whether or not to receive medical care, including hospitalization, hospital discharge, and treatment acceptance?” (%)

	Patients	Caregivers	Clinicians
Any time	20.0%	0.0%	0.0%
Only during the acute stage	14.0%	0.0%	0.0%
Only during chronic stage	10.0%	2.2%	1.6%
Only during the recovering stage, well enough to be released	34.0%	63.1%	70.5%
Never	22.0%	30.4%	24.6%

$$\chi^2=13.8, p=0.001$$

TABLE 7: ANSWERS TO ITEM 9 OF THE QUESTIONNAIRE:
 “How do you feel about a rule that states that under certain conditions, a patient with schizophrenia must have someone else consent for him/her in the informed consent process?” (%)

	Patients	Caregivers	Clinicians
Totally agree	10.0%	21.7%	18.0%
Agree	36.0%	43.5%	62.3%
Neither agree nor disagree	28.0%	17.4%	8.2%
Disagree	16.0%	13.0%	11.5%
Totally disagree	10.0%	4.3%	0.0%

$$\chi^2=13.8, p=0.001$$

Coercion

We asked the subjects about their view on forcing a schizophrenic patient into treatment (non-emergency) that was turned down by the patient’s guardian, but was beneficial to the patient (Table 8). While half of the patients (47%) and

caregivers (50%) either totally agreed or agreed with forcing the patient into treatment, most of the clinicians in our survey disagreed or totally disagreed with this statement.

**TABLE 8: ANSWERS TO ITEM 16 OF THE QUESTIONNAIRE:
“Under non-emergency situation, if a schizophrenic patient refuses medical care a doctor prescribes, the patient should be forced to receive the treatment for his own good, even without permission from his guardian.” (%)**

	Patients	Caregivers	Clinicians
Totally agree	18.4%	6.5%	6.6%
Agree	28.6%	43.5%	11.5%
Neither agree nor disagree	20.4%	10.9%	8.2%
Disagree	30.6%	32.6%	65.6%
Totally disagree	2.0%	6.5%	8.2%

$\chi^2=18.7, p=0.000$

**TABLE 9: ANSWERS TO ITEM 6 OF THE QUESTIONNAIRE:
“In a non-emergency, if the doctor thinks a schizophrenic patient is mentally unable to make decisions for medical care, the doctor should:” (%)**

	Patients	Caregivers	Clinicians
Do nothing	0.0%	0.0%	0.0%
Ask the patient’s guardian or family to make decisions for medical care	60.0%	58.7%	85.2%
Make the decision for medical care by doctor himself	30.0%	32.6%	9.8%
Not sure	12.0%	8.7%	4.9%

$\chi^2=11.9, p=0.003$

Decision-making Procedure

When asked who should decide about medical treatment if a patient was deemed incapable of making a decision, the majority of the patients and caregivers and the vast majority of clinicians we surveyed wanted to engage the patients’ guardian or family in making a decision (Table 9). In addition, even though one-third of the patients and caregivers would endorse the doctor’s decision regarding medical care, fewer than 10% of the clinicians chose this option. Regarding the person who could make a decision on the patient’s behalf with regard to receiving hospitalization (when a patient lacked the ability to give informed consent), most caregivers and clinicians chose legal guardians (Table 10). About one-third of the patients chose this option while another one-third chose doctors instead.

We also asked who would be the most appropriate person to make the final decision about treatment if the schizophrenic patient were incompetent and unable to give informed consent, most patients and caregivers chose a “doctor,” while most clinicians chose a “legal guardian” (Table 11).

Eighty percent of the patients, 59% of the caregivers, and 65% of the clinicians chose “agreed” or “totally agreed” when asked about their opinion regarding doctors adjusting treatment plans to accommodate patients’ wishes (Table 12). However, while we had a similar percentage of caregivers and clinicians who either disagreed or totally disagreed (30%), only about 10% of patients disagreed or totally disagreed.

TABLE 10: ANSWERS TO ITEM 11 OF THE QUESTIONNAIRE:
“If the schizophrenic patient is incompetent to give informed consent, who is the most reasonable decision-maker for the final decision about admission to the hospital?” (%)

	Patients	Caregivers	Clinicians
Only legal guardian	34.0%	56.5%	72.1%
Any family member	8.0%	6.5%	13.1%
Doctor	30.0%	15.2%	3.3%
Family and patient together	28.0%	21.7%	9.8%
Others (such as the leader of the patient’s office, schoolmate, friends, and so on	6.0%	2.2%	1.6%

$\chi^2=22.6, p=0.000$

TABLE 11: ANSWERS TO ITEM 13 OF THE QUESTIONNAIRE:
“If the schizophrenic patient is incompetent to give informed consent, who is the most reasonable decision-maker for the final decision about treatment?” (%)

	Patients	Caregivers	Clinicians
Only legal guardian	18.0%	32.6%	54.1%
Any family member	8.0%	6.5%	6.6%
Doctor	54.0%	50.0%	32.8%
Family and patient together	18.0%	10.9%	6.6%
Others (such as the leader of the patient’s office, schoolmate, friends, and so on	2.0%	2.2%	0.0%

$\chi^2=16.6, p=0.000$

TABLE 12: ANSWERS TO ITEM 32 OF THE QUESTIONNAIRE:
 “The doctor should generally try to tailor treatment to the desires of the schizophrenic patient within the limits of good clinical practice.” (%)

	Patients	Caregivers	Clinicians
Totally agree	36.0%	13.0%	8.2%
Agree	44.0%	45.7%	57.4%
Neither agree nor disagree	8.0%	10.9%	4.9%
Disagree	8.0%	23.9%	23.0%
Totally disagree	4.0%	6.5%	6.6%

$\chi^2=12.6, p=0.002$

Confidentiality

We asked our subjects to choose the individuals they thought the doctor should notify concerning a patient’s diagnosis if the patient did not wish to know the status (Table 13). Most of the patients, caregivers, and clinicians all chose having the doctor only tell the patient’s guardian or family about the patient’s disorder. About one-third of the clinicians thought that it would be necessary to also disclose some information about his condition to the patient, a view not shared by any of the patients or caregivers.

In the case of the guardian not wanting to know treatment risks, benefits, and alternatives (Table 14), 41% of the clinicians still thought it necessary that they be told about some information in these areas, but none of the patients or caregivers saw this as necessary. Slightly over half of the patients and caregivers, and a little under half of the clinicians, selected the option of still notifying the guardian about the proposed treatment.

TABLE 13: ANSWERS TO ITEM 20 OF THE QUESTIONNAIRE:
 “If the schizophrenic patient tells the doctor he would rather not know anything about his disorder, what should the doctor do?” (%)

	Patients	Caregivers	Clinicians
Do not disclose to anybody anything — about the patient’s disorder	8.0%	2.2%	1.6%
Tell patient’s guardian or family about — the disorder	78.0%	78.3%	65.6%
Still tell the patient about his disorder	4.0%	8.7%	4.9%
Not sure	12.0%	10.9%	1.6%
Tell the patient something appropriate — related to his condition	0.0%	0.0%	26.2%

$\chi^2=8.3, p=0.016$

TABLE 14: ANSWERS TO ITEM 28 OF THE QUESTIONNAIRE:
 “If the schizophrenic patient’s guardian tells the doctor that he would rather not know anything about treatment risks, benefits, and alternatives, what should the doctor do?” (%)

	Patients	Caregivers	Clinicians
Do not disclose to anybody anything about the proposed treatment	8.0%	9.1%	3.3%
Still tell the guardian about the proposed treatment	52.0%	56.8%	47.5%
Tell the patient about the proposed treatment	24.0%	25.0%	4.9%
Not sure	18.0%	9.1%	3.3%
Tell the guardian something about side effects of drugs, treatment plan, and other things to pay attention to	0.0%	0.0%	41.0%

$\chi^2=10.8, p=0.004$

In the event that a patient does not wish his/her doctor to tell the guardian or family about treatment risks, benefits, and alternatives (Table 15), most patients, caregivers, and clinicians thought that the doctor should still tell the patient’s guardian or family the proposed treatment. About one-third of the clinicians thought that the doctor should also tell the guardian something related to the treatment, a view not shared by any of the patients or caregivers.

TABLE 15: ANSWERS TO ITEM 29 OF THE QUESTIONNAIRE:
 “If the schizophrenic patient asks the doctor not to tell his guardian or family about his treatment risks, benefits, and alternatives, what should the doctor do?” (%)

	Patients	Caregivers	Clinicians
Do not disclose to anybody anything about the proposed treatment	8.0%	6.5%	0.0%
Only tell the patient’s guardian or family about the proposed treatment	66.0%	80.0%	60.7%
Only tell the patient about the proposed treatment	18.0%	6.5%	1.6%
Not sure	8.0%	6.5%	1.6%
Only tell the guardian information related to treatment	0.0%	0.0%	34.4%

$\chi^2=16.6, p=0.000$

When asked their views regarding what the doctor should do when a schizophrenic patient’s guardian or family asks the doctor not to tell the patient information regarding treatment risks, benefits, and alternatives (Table 16), more

than 60% of the patients and caregivers wanted the doctor to inform the patient's guardian or family of the proposed treatment, a view shared by only 30% of the clinicians. Among clinicians, more than half thought the doctor should disclose what he/she considered necessary to the patient, a view not shared by the patients or guardians.

TABLE 16: ANSWERS TO ITEM 30 OF THE QUESTIONNAIRE:
 "If the schizophrenic patient's guardian or family asks the doctor not to tell the patient about the treatment risks, benefits, and alternatives, what should the doctor do?" (%)

	Patients	Caregivers	Clinicians
Do not disclose to anybody anything			
— about the proposed treatment	14.3%	15.2%	8.2%
Only tell the patient's guardian or family			
— about the proposed treatment	63.3%	63.0%	32.8%
Tell the patient about the proposed			
— treatment	6.1%	15.2%	1.6%
Not sure	16.3%	6.5%	3.3%
Tell the patient what the clinicians think			
— is necessary	0.0%	0.0%	54.1%

$\chi^2=30.8, p=0.000$

DISCUSSION AND CONCLUSION

Bioethicists view informed consent as the practical embodiment of respect for persons and for individual autonomy. Autonomy includes notions of self-governance, liberty, rights, and privacy.² This moral framework holds the patient's right and ability to make choices that are consistent with his/her values and preferences to be the main rationale for informed consent.^{2-4,7} From an ethical perspective, the physician's disclosure obligation is a prerequisite for the exercise of patient autonomy rather than the central focus of informed consent.⁷

At the center of informed consent is patient autonomy, which became the sacrosanct principle governing medical ethics in most dire need of protection.⁸ From the patient's perspective, however, the notion of autonomy is frequently distorted in the clinical setting. Patients necessarily relinquish their full autonomy to experts, and in this regard, they cannot be truly autonomous, but must instead ultimately rely on the competence and goodwill of their healthcare providers to represent their best interests.^{7,8} Indeed, physicians have incorporated informed consent into their practice as a means of improving patient satisfaction. Perhaps most important, shifting responsibility to the patient provides a potent

tactic to combat malpractice suits.⁸ Our survey suggests that most physicians, caregivers, and patients think informed consent not only protects patients but also clinicians.

The process of informed consent has been routinely carried out in Chinese psychiatric hospitals. When psychiatric patients are admitted into the inpatient units, attending psychiatrists customarily administer both oral and written informed consent; if the patients and caregivers have difficulty with reading, they are given oral informed consent. Before medical or clinical treatment is administered or before the patients are released from the hospital, attending psychiatrists customarily give both oral and written informed consent again (or oral alone for people with reading difficulties).

This study illustrates that even though informed consent is being administered, major differences exist among patients, caregivers, and physicians in their interpretation of the purpose of informed consent. For example, 67.4% of the patients, 59.2% of the caregivers, and 90.2% of the clinicians thought that informed consent would protect not only doctors but also patients, which is a biased perception, in part brought about by China's current healthcare environment. At the present time, the implementation of laws and regulations in the medical field is still unsatisfactory. Patients, their families, and physicians all feel a sense of insecurity about medical procedures, originating from their own perspectives, and doctors and patients lack mutual trust. Many medical disagreements cannot get adequate and timely legal resolution. Therefore, both patients and, even more so, physicians may prefer having a contract-like informed consent form to prevent potential negative impacts to their own rights imposed by the other party. In fact, from both ethical and legal perspectives, informed consent is a procedure meant to protect the rights of patients, not doctors. In our study only 1.6% of clinicians considered informed consent a process for the protection of patients' rights.

Informed consent may also have particular cultural contexts.^{3,4} While informed consent may fit comfortably within most Western societies, some other cultures may not consider it a universal ideal. In China, people may place the family unit and its wellbeing above the individual. In this survey, we observed that when patients or caregivers demanded that clinicians not tell the patient's condition to anyone, just a small portion of clinicians, caregivers, and patients agreed; most of them believed that the legal guardians or families should be notified of the situation, a belief supported by the legal requirement in the informed consent procedure under current Chinese law.

Most people agree that patients should be given adequate information about their health and any planned medical interventions. The difficulty is defining

what constitutes adequate information. Most of the clinicians we surveyed held the professional standard for information disclosure, which requires disclosure consistent with the standards of other professionals in the same community acting in the patient's best interest. Such standards, however, risk disproportionately reflecting the values of professionals, not patients. In our survey, patients and caregivers generally appreciated that physicians disclose information tailored to the needs of each patient, or disclose information using a subjective standard. Patients and caregivers desired to know more about the medical condition and treatment information, and they wanted to be told all relevant information, or at least what the patients regard as necessary information. None of the patients and caregivers we surveyed agreed with the clinicians' view that only information the clinicians regarded as relevant needed to be disclosed to patients or caregivers. At the same time, though, patients and caregivers also preferred that clinicians refrain from providing too many treatment choices. In this last case, they preferred that only information deemed necessary by clinicians be disclosed.

A complication in informed consent in schizophrenic patients often lies in the impaired competence of patients. Under such circumstances, are they still able to make decisions on their own? Jeste et al.⁹ have reported that the extent of the damage to schizophrenic patients' cognitive ability and the severity of psychopathology are related to patients' decision-making capacity. Moser¹⁰ has pointed out that not all mentally ill patients lack competence for informed consent. On the contrary, similar to many normal people, many patients have the ability to make decisions on matters such as hospitalization and treatment. Our survey suggests that only 22% of the patients, 30.4% of the caregivers, and 24.6% of the clinicians we surveyed felt that schizophrenic patients could not make the decision about whether to accept treatment by themselves at any time, and that the decision should be made by their legal guardians. In our current psychiatric clinical practice, legal caregivers/guardians normally make decisions about treatment on behalf of psychiatric patients. Patients themselves are essentially excluded from the decision-making process. We should acknowledge that if a patient's competence for informed consent is determined to be intact following a comprehensive evaluation of his/her ability in this regard, we should let the patient decide on his/her own medical treatment. With regard to patients who are in the acute stage of mental illnesses, none of the caregivers or clinicians in our survey believed that such patients could make decisions about treatment acceptance. Therefore, the right party to give informed consent may vary depending on the patients' decision-making capacity.

Based on previous research conducted by others, four factors should be considered in deciding whether a person has the capacity to make decisions on medical care. These are:

1. whether the patient can accurately comprehend related information;
2. whether the patient understands his/her own condition;
3. whether the patient can rationally analyze the consequences of participating in the research/treatment;
4. whether the patient can accurately express his/her own decisions.

The criteria listed above have been widely recognized and accepted by many clinicians and researchers.¹¹ The MacArthur Competence Assessment Tool (MacCAT-T)^{12,13} quantifies competence using the criteria listed above. Bloch et al.¹⁴ regard mental illnesses as a special disorder and argue that there might always be the need for surrogates. Therefore, if the patients' judgment is impaired by illness, an appropriate surrogate should be chosen to grant informed consent.

Based on the reasons listed above, before carrying out informed consent for a schizophrenic patient, one can first conduct a comprehensive evaluation of the patient's ability for informed consent and base the decision for the actual implementation procedure for informed consent on the evaluation result. It is particularly important for clinicians to realize that a patient's agreement with the treatment plan does not necessarily equate with his/her competence. Therefore, the comprehensive evaluation is a necessary step before carrying out informed consent. If it is determined that a patient is incapable of making an informed consent, the next step is finding the appropriate surrogate for the patient. The ranking of the surrogates is clearly defined by current Chinese law, with spouses, parents, children, and other relatives serving in such a role in descending order.¹⁴ However our survey suggests that not all patients want their relatives to make decisions for treatment on their behalf. Approximately one-third of patients chose doctors as their surrogates, suggesting that doctors' medical knowledge is still an important factor for patients' trust in clinical treatment.

In summary, informed consent is a basic right of the patient. Clinicians have an obligation to ensure that informed consent is properly carried out. However, there are still some problems that need to be researched and addressed in order for this process to be implemented smoothly. Clinicians overall should do a better job in informing patients. Patients and their caregivers can then give well-informed consent. In addition, patients' privacy should also be carefully protected during the course of the informed consent process.

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