Drug & Alcohol Services South Australia

WHO Multi-Site Project on Methamphetamine-induced Psychosis: A descriptive report of findings from participating countries.

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ABBREVIATIONS

ATS	Amphetamine-type stimulant
Benz	Benzodiazepine
Hep B	Hepatitis B virus
Hep C	Hepatitis C virus
HIV	Human immunodeficiency virus
Meth	Methamphetamine
THC	Tetrahydrocannabinol (cannabis)

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EXECUTIVE SUMMARY

This report presents findings from a multi-site study of amphetamine-induced psychosis, sponsored by the World Health Organisation (WHO). The project was conducted between August 2000 and April 2002 at four centres in the Asia-Pacific region, with coordination of international data collection conducted through the Australian participating site, Drug & Alcohol Services South Australia in conjunction with the National Addiction Centre at the Maudsley Hospital in London.

The project aimed to address several broad questions concerning the nature of adverse health, psychotic and other psychiatric symptoms and their management in persons presenting with methamphetamine-induced psychotic disorders to treatment services.

The target population for the study was male and female methamphetamine users aged between 18 and 59 years who had been admitted to hospital due to a methamphetamine-induced psychotic disorder across four participating countries. In total, 50 participants were recruited in each of Australia, Thailand and the Philippines while 43 were recruited in Japan.

Demographics

Both similarities and differences were identified in the demographic characteristics of each country's participants. Overall, the majority of participants were male and in their mid to late twenties with at least some secondary education. While the proportion of male and female participants was consistent between Australia, Thailand and Philippines there was a much higher proportion of females within the Japanese sample. Differences appeared when other demographic categories were examined, for example participants from Thailand were much more likely to be employed and living with parents than participants from the other three countries.

Source of referral and past diagnosis

Distinct differences between the countries were identified when the source of referral and past diagnoses variables were examined. Australian participants reported the least amount of family involvement in both referral and accompaniment to hospital of all countries. Almost all referrals from Thailand and the Philippines came from family members and the overwhelming majority of participants from all countries except Australia had a family member with them when they were admitted to hospital. It is possible that cultural differences and access to alternative health agencies may have influenced the results with respect to the person referring the participant to hospital. Referral practices may differ between countries and the extremely high number of police referrals for Australian participants by comparison warrants further investigation.

Information provided by participants about their past psychiatric diagnoses was at times confused. A number of participants who stated that they had not received a past psychiatric diagnosis reported that they had previous diagnoses for a substance-induced disorder (data was unavailable for Thailand). This must be taken into account when interpreting the results and a certain amount of caution is advised in drawing conclusions. Excluding individuals who reported no past history of a psychiatric disorder a substantial number of participants had experienced previous episodes of a substance-induced disorder. Perhaps unsurprisingly, Australian and Japanese participants were the most highly medicated, probably as a result of the availability of medicines. Despite this difference, the majority of all participants were not taking any prescribed medication at the time of their admission to hospital.

Extent, patterns and routes of methamphetamine administration

There were very few similarities between the participants from each of the four countries concerning the extent, patterns and routes of methamphetamine administration. Australian participants were by far the most experienced drug users with respect to the number of different drugs that they had tried in their lifetimes and the age at which they began to use methamphetamines. In contrast, participants from the Philippines and Thailand had used a much smaller range of drugs, which could be related to availability rather than choice. Interestingly Australian participants also recorded a high rate of cannabis use compared to participants from the other three countries.

A dichotomy appeared with respect to the route of administration of methamphetamine which was not unexpected. Japanese and Australian participants were predominantly injectors of methamphetamine while participants from the Philippines and Thailand were almost exclusively smokers. All participants had increased their frequency of use in the months, days and hours leading up to admission to hospital.

Consequences of methamphetamine use

The majority of participants from each of the countries met the diagnostic criteria for methamphetamine abuse or dependence. A notable exception was reported with nearly a third of participants from the Philippines not meeting the criteria for methamphetamine dependence. Once again Australian participants recorded the more extreme levels of abuse and dependence and this was also true for self reported cravings for methamphetamines.

All participants listed a number of problems attributed to their use of methamphetamine but there was no consistency in the type of problems experienced by participants in each country. Higher arrest rates were noted for Australian and Japanese participants who also recorded higher rates of past imprisonment. Participants from the Philippines and Thailand were more likely to have family and friends who used methamphetamine compared to Australian and Japanese participants perhaps suggesting a more social pattern of use.

Physiological and psychological symptomatology

Differences emerged between the four countries with respect to levels of physical disability with Japanese participants suffering the highest degrees of physical disability and participants from the Philippines the lowest.

Differences were also seen between countries with respect to psychiatric morbidity (other than psychosis) with participants from Australia found to be the most morbidly depressed whilst the highest proportion of morbidly anxious participants were those from the Philippines.

Symptoms of psychosis were comparable between countries. Participants from each country exhibited more positive than negative symptoms and delusions were the most commonly experienced symptom among all participants with auditory hallucinations more common than visual hallucinations.

A quarter of the participants from the Philippines failed to be diagnosed using the MINI Plus as having a substance-induced psychotic disorder. In contrast though, these participants exhibited significantly higher levels of morbid hallucinations, incoherent speech, negative symptoms of schizophrenia and poverty of speech. The different psychological profile exhibited by the participants from the Philippines is difficult to reconcile. It is possible that the diagnostic instrument or the timing and duration of its delivery was not appropriate for participants from the Philippines where, as dictated by the treatment protocol, the interview and tests with participants were taken in the acute ward during the first three days of admission. Additionally, whilst every effort was taken to train the study interviewers and standardise delivery of the instrument, it is possible, and in the case of the Philippines likely, that some interviews were delivered by untrained staff, including medical interns.

Sexual risk taking and injecting behaviour

Small numbers of participants from each country reported sexual behaviour in the month prior to admission and the results must be treated with caution. The majority of participants who had sex with their regular partner in the month prior to interview did not use a condom in the last month. While condom use increased with casual or paid sex partners, half or more of participants from all countries who reported sex with a casual partner in the month prior to admission, stated that they “never” used a condom. Several participants from Australia, Japan and the Philippines reported they had had sex with multiple partners, while no participants from Thailand reported having multiple partners.

An analysis of injecting risk taking behaviour was restricted to Australian and Japanese participants as very few, if any, participants from Thailand or the Philippines reported injecting. Japanese participants were much more likely to share needles than Australian participants and perhaps as a consequence had higher rates of Hepatitis C.

Treatment contact

Very few participants reported past treatment for psychological or psychiatric conditions excluding methamphetamine-induced psychosis except for Australians where over 60% of the sample had received some form of treatment. Approximately twice as many participants from the Philippines and Thailand reported past treatment specifically for methamphetamine-induced psychosis with Thai participants reporting the highest number of treatment episodes.

A distinct difference was identified in past treatment for methamphetamine use with less than 10% of Australians reporting past treatment compared to half of the participants from the other three countries. Treatment in Thailand and the Philippines consisted primarily of inpatient program participation, while in Japan approximately equal numbers had attended inpatient and out-patient programs.

On admission to hospital, Japanese participants were found to be the most highly medicated group and participants from the Philippines the least. Participants from Thailand and the Philippines were less likely to be taking antipsychotic medication in comparison to Australian and Japanese participants. The most commonly reported antipsychotic being used on admission was different for each country, no doubt reflecting differences in both availability and prescribing practices.

Treatment and care on discharge from the current admission

Differences existed between the four countries in the treatment of methamphetamine-induced psychosis, including duration of hospitalisation, preferred type of discharge follow-up and when and what type of medications were used. In the Philippines treatment follows a defined protocol whereas treatment in the other countries tends to be symptomatic and not standardised. Information about discharge medications was inconsistently recorded and should be interpreted with caution. However, in Australia, the most commonly prescribed antipsychotic was olanzapine while in the other three countries it was haloperidol. This differed from the most used antipsychotic found on admission in Thailand and the Philippines.

Participants from the Philippines recorded the shortest duration of hospitalisation for the current episode of methamphetamine psychosis (mean stay three and a half days) whilst those from Japan, who recorded the longest duration, were hospitalised for a mean of almost 28 days.

The most frequently offered type of after discharge care in all four countries was out-patient care but acceptance of this service was reported to be much higher in the Philippines and Thailand (up to 100%) than in Australia or Japan (less than 50%).

Conclusion

A large amount of information was gathered on a sample of participants admitted to hospitals in four different countries for an initial diagnosis of methamphetamine-induced psychosis. Differences and similarities were identified between the participants suggesting that the profile of methamphetamine-induced psychosis and the range of factors leading up to an episode can vary both within individuals and between countries.

Recommendations

Several recommendations have come from this research:

- Recognition of this disorder and its psychological and behavioural consequences should be enhanced in treating institutions, in services that sufferers may access (including drug and alcohol treatment services), and among law enforcement officials who may encounter affected individuals.
- Greater collaboration should be established between mental health services and drug and alcohol treatment services for dealing with methamphetamine-induced psychosis.
- Inpatient treatment for methamphetamine-induced psychosis should include interventions targeted at individuals' substance (particularly methamphetamine) abuse and/or dependence. Patients' poly-drug use should also be addressed.
- Inpatient treatment should include interventions targeted at individuals' blood borne virus risk behaviour, to reduce the incidence of transmission of blood borne viruses such as HIV and hepatitis C.
- A randomised controlled trial of inpatient treatment for the acute manifestations of methamphetamine-induced psychosis should be conducted to determine the most effective form of intervention for the psychotic symptoms of this disorder.
- A randomised controlled trial of assertive out-patient follow-up should be conducted to determine the most effective ways of providing psychiatric and drug and alcohol related support to patients when they are discharged from hospital, to maintain improvements in discharged patients' psychological health, and to reduce rates of relapse.
- Clinicians treating patients with methamphetamine-induced psychosis should be aware that patients might be suffering from an affective or anxiety disorder and may benefit from treatment of these conditions.
- Prevention initiatives should incorporate the findings of the present research in strategies to increase community awareness of the disorder, including presenting the "risk factors" (such as injecting and using large amounts of methamphetamine regularly) that might increase the likelihood of developing methamphetamine psychosis.

SECTION 1 INTRODUCTION

1.1 Background

This report presents findings from a multi-site study of amphetamine-induced psychosis, sponsored by the World Health Organisation (WHO). The project was conducted at four centres in the Asia-Pacific region, with coordination of international data collection conducted through the Australian participating site the Drug & Alcohol Services Council of South Australia in collaboration with the National Addiction Centre at the Maudsley Hospital in London.

The multi-site project was initially discussed during a meeting of WHO international experts in Bangkok in November 1999. A consensus was reached at this meeting that a priority area for study should be the nature and clinical management of methamphetamine-induced psychotic disorders in high prevalence countries, among patients who present to treatment services.

The collaborating sites for the present research include Australia, Japan, the Philippines and Thailand. These, sites were chosen because they exhibit a high prevalence of methamphetamine use, and of methamphetamine-induced psychotic symptoms in individuals who present to acute care health services. This research represents a unique and timely exploration of this significant public health issue as methamphetamine-related psychosis has increasingly emerged as a global problem in recent years.

1.2 Study aims

The project aimed to address several broad questions concerning the nature of adverse health, psychotic and other psychiatric symptoms and their management amongst persons presenting with methamphetamine-induced psychotic disorders to treatment services. These questions included:

- What are the extent and nature of the patients' physical and psychiatric symptoms and disorders, and their social consequences?
- What are the extent, patterns and routes of administration of methamphetamine use, and of other substance use?
- Among those presenting with amphetamine-related psychotic symptoms, what are their past psychiatric diagnoses, sources of recent referral, current treatments and care received, length of inpatient stay, discharge details and follow-up treatment received?

- What is the relationship between psychotic symptoms and methamphetamine use?

This project provides opportunity for cross-cultural comparisons of the nature and antecedents of this disorder, allows identification of potential opportunities for appropriate interventions for individuals who experience methamphetamine-induced psychotic disorders, and provides the context for the development or refinement of treatment approaches for this condition.

1.3 Structure of the report

This report is divided into five sections. This brief introduction comprises **Section One.** In **Section Two**, a brief literature review is presented to provide the background and rationale for the study methodology and aims. **Section Three** details the methods used in conducting the clinical interviews. **Section Four** presents the results. Findings from the study are discussed in **Section Five**, and are accompanied by recommendations arising from this work.

2.1 Pharmacology and use of methamphetamine

2.1.1 Pharmacology and neurobiological actions of methamphetamine

The amphetamine-type stimulants (ATS) include amphetamine itself, dexamphetamine, methamphetamine, and fenfluramine, amongst others (Holman, 1994). In addition to the amphetamines are related compounds such as methylphenidate, methylenedioxymethamphetamine (MDMA, or ecstasy) and methylenedioxyamphetamine (MDA) (Brands, Sproule & Marshman, 1998). The focus of the present research is on a particular amphetamine-type stimulant – methamphetamine. Closely chemically related to amphetamine, methamphetamine is lipophilic, facilitating its penetration of the blood-brain barrier and resulting in the central effects of methamphetamine being more pronounced than those of amphetamine (Iwanami et al., 1994; Meredith, Jaffe, Ang-Lee & Saxon 2005)). Although each drug is slightly different, the general mode of action is the same – increasing extracellular concentrations of dopamine and noradrenaline (Holman, 1994).

Methamphetamine is an indirectly acting sympathomimetic drug that primarily increases the actions of dopamine, noradrenaline and serotonin in the central nervous system and the actions of noradrenaline in the peripheral sympathetic nervous system (Cho & Melega, 2002). Methamphetamine blocks the reuptake and increases the direct release of dopamine from newly synthesised pools, blocks the reuptake of noradrenaline and also causes its release but in general has a lesser effect on serotonin (King & Ellinwood, 1997). The mood changes associated with methamphetamine use may be due to the action of methamphetamine on the dopamine neurons in the mesolimbic area, with similar actions on the mesocortical dopamine neurons likely to mediate methamphetamine's effects on judgement and insight. The increased arousal associated with methamphetamine is likely to result from the methamphetamine-enhanced activity of noradrenaline neurons in the reticular-activating system, and the greater sustained action of the catecholamines at the postsynaptic site may account for the behavioural effects of methamphetamine (Miller, 1991). The potential for abuse of methamphetamine is thought to be primarily due to its euphorigenic effects and its psycho-motor stimulating properties (King & Ellinwood, 1997).

2.1.2 *Routes of methamphetamine administration*

Methamphetamine can be administered orally (by swallowing or rubbing on gums), nasally (snorted), intravenously (injected), or smoked (either in a pipe by itself or in combination with cannabis). The intensity and timing of the methamphetamine "rush" (which results primarily from the release of high levels of dopamine in the brain) depends in part on the route of administration employed. Injecting or smoking methamphetamine results in an almost immediate effect, whereas the effects from snorting methamphetamine occur approximately five minutes after administration, and are less intense. The effects of methamphetamine when consumed orally are felt in about half an hour, and are less intense than the effects generated by snorting methamphetamine (Anglin, Burke, Perrochet, Stamper & Dawud-Noursi, 2000). Smoking as a route of administration therefore results in a very rapid onset of drug action, comparable to intravenous injection, without the injection-related risks (Brands, Sproule & Marshman, 1998). The elimination half-life of methamphetamine is approximately 12 hours (Meredith, Jaffe, Ang-Lee & Saxon 2005).

2.1.3 *Effects of methamphetamine*

Methamphetamine use produces a number of effects including wakefulness, alertness, increased energy, reduced hunger and an overall feeling of wellbeing or euphoria (Brands, Sproule & Marshman, 1998). Chronic use of methamphetamine, however, can result in the development of dependence and a variety of psychological consequences, such as depression, paranoia, hallucinations (Domier, Simon, Rawson, Huber & Ling, 2000), sleep problems, anxiety, panic attacks (Williamson, Gossop, Powis, Griffiths, Fountain & Strang, 1997), and mood swings (Vincent, Shoobridge, Ask, Allsop & Ali, 1998; Winger, Woods & Hofmann, 2004). Adverse behavioural consequences of methamphetamine consumption include violent or aggressive behaviour (Asnis, Smith & Crim, 1978; Vincent et al., 1998; Wright & Klee, 2001; Winger, Woods & Hofmann, 2004) and arguably the most extreme adverse psychological consequences of methamphetamine consumption, methamphetamine-induced psychosis (e.g., Davis & Schlemmer, 1980).

2.1.4 *Methamphetamine abuse and dependence*

Amphetamine abuse and dependence are defined in the DSM-IV under the category of Amphetamine Use Disorders (American Psychiatric Association, 1994). Amphetamine abuse is defined within the broader substance abuse disorder definition as "a maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the repeated use of substances" (p.198). Abuse becomes dependence when the problems associated with amphetamine use "are accompanied by evidence of tolerance, withdrawal, or compulsive behaviour" (p.206).

Evidence of amphetamine dependence and aspects of dependence such as withdrawal have been demonstrated in a number of research studies. For example, amphetamine users have been shown to experience measurable withdrawal from amphetamines (see Srisurapanont, Jarusuraisin & Jittiwutikan, 1999a; 1999b), and are motivated to readminister amphetamine in order to avoid or relieve withdrawal symptoms (e.g. Topp & Mattick, 1997).

2.2 Methamphetamine psychosis

2.2.1 *Past research into amphetamine-induced psychosis*

Researchers have known about amphetamine-induced psychosis since the late 1930's. Young and Scoville (1938) were the first to report the occurrence of psychosis arising from the use of amphetamine-type stimulants, publishing a report of individuals who had developed paranoid psychoses, including delusions of persecution and hallucinations, after being treated with benzedrine for narcolepsy. Many other case histories and small studies were subsequently published in this area and several literature reviews have also been published see for example Connell (1958), Davis and Schlemmer (1980), Sato (1992), Baker and Dawe (2005). Some of the findings from the present research have also been published (Srisurapanont, Ali, Marsden et al. 2003).

2.2.2. *Symptoms of methamphetamine psychosis*

Presentations of methamphetamine psychosis are very similar to paranoid schizophrenia (Davis & Schlemmer, 1980; Baker and Dawe, 2005), with some suggesting that the presentations of the disorders are indistinguishable (e.g. Connell, 1958). The positive symptoms of methamphetamine psychosis are particularly similar to those of paranoid schizophrenia, consisting mainly of delusions (particularly of persecution, but also delusions of reference) and hallucinations. Delusions of persecution are frequently reported to be characteristic of methamphetamine-induced psychosis (e.g. Connell,

1958; Griffith, Cavanaugh & Oates, 1970; Wada and Fukui, 1990; Winger, Woods & Hofmann, 2004). The recurrent nature of methamphetamine psychosis is also suggested as another apparent similarity, as recurring methamphetamine psychosis may mimic the clinical course of endogenous schizophrenia (Tomiyama, 1990).

The presence of hallucinations is almost universally reported by researchers however different kinds of hallucinations have been noted between studies. Auditory hallucinations have been reported by some research to be more prevalent than visual hallucinations (e.g. Bell, 1965; Sato, Chen, Akiyama & Otsuki, 1983, Chen, Lin, Sham et.al. 2003). Other types of hallucinations have been noted such as olfactory disturbances or hallucinations (e.g. Griffith, Cavanaugh & Oates, 1970) and tactile hallucinations (e.g. Davis & Schlemmer, 1980, Chen, Lin, Sham et.al. 2003).

In addition to hallucinations, other symptoms have been reported including affective blunting (e.g. Bell, 1965), thought disorders (e.g. Bell, 1965; Sato et al., 1983), violent behaviour (e.g. Fukoshima, 1994; Winger, Woods & Hofmann, 2004), and self-mutilation and self-injurious behaviour (e.g. Kratofil, Baberg & Dimsdale, 1996).

2.2.3 Duration of methamphetamine psychosis

There is considerable variation in the reported duration of amphetamine and methamphetamine-induced psychoses. It appears as if in the majority of cases the initial symptoms diminish within a few days (Davis and Schlemmer, 1980; Srisurapanont, Kittiratanapaiboon & Jarusuraisin, 2004). However a number of studies have identified longer recovery periods. Iwanami et al. (1994) reported that psychotic symptoms disappeared within a week for 39% of the sample, 1 to 2 weeks for 16% of the sample, between 2 weeks and a month for 6%, and 10% of the sample experienced the psychotic state for between one and 3 months. Approximately one quarter of methamphetamine users recruited from a Taiwanese psychiatric hospital experienced psychosis for more than a month after ceasing the drug and almost 13% suffered psychosis for over six months (Chen, Lin Sham et.al. 2003).

Sato (1986), Wada and Fukui (1991), and Iwanami et al. (1994) each proposed that there are two kinds of methamphetamine psychosis, which can be differentiated by the duration of the psychoses. The first of these types is said to be a shorter psychotic state that begins to improve along with changes in the acute central action of

methamphetamine, whereas the second type of methamphetamine psychosis is experienced for considerably longer periods of time (up to or beyond 6 months). Sato (1986) suggests that chronic methamphetamine use results in a lasting change in neural dopaminergic and non-dopaminergic systems relating to the psychotic state. Wada and Fukui's (1991) description included an "early disappearing type" of methamphetamine psychosis, where the symptoms resolve within a month, (although they may relapse), and a "delayed lasting type", in which the symptoms may last a month or more, in some cases cycling through lulls and relapses. Iwanami et al (1994) classified the subjects into "transient type" and "persistent type", the former including the 52% of the sample whose psychotic symptoms resolved within a week and the latter including the 16% whose duration of psychotic state was more than three months.

2.2.4 Recurrence of methamphetamine psychosis

Many studies have reported the recurrent nature of methamphetamine psychosis (Sato et al., 1983; Sato, 1986; Yui, Goto, Ishiguro, & Ikemoto, 1997; Yui, Goto, Ikemoto, & Ishiguro, 2000a; Yui, Goto, Ikemoto, Nisi Jima, Kamada, & Ishiguro, 2000b; Yui, Goto, Ikemoto, Nishijima, Yoshino, & Ishiguro, 2001). The high potential for recurrence of this disorder is highlighted by Sato's (1992) review of studies relating to the first and second epidemics of amphetamine abuse in Japan. Sato reported that nearly half of the admissions for amphetamine-induced psychosis during the second epidemic were persons who suffered a recurrence, some who had been readmitted for amphetamine-induced psychosis more than 10 times. In a review of Japanese hospital separations data from 1978 to 1987 Nakatani et al (1989) identified that only 20% of admissions for methamphetamine-induced psychosis were for a first episode, suggesting substantial rates of recurrence.

The triggers for recurrence of methamphetamine-induced psychosis can include methamphetamine use (Sato, 1986), or other drug use (Tomiyama, 1990), psychosocial stressors (Yui and colleagues, 1997; 2000a; 2000b; 2001), sleep deprivation (Wright, 1993) or other non-specific stimuli (Wada & Fukui, 1991). Notably, if methamphetamine use is recommenced, a significantly shorter period of abuse may be sufficient to reproduce the psychotic state than that which produced the initial episode (Sato, 1986).

2.2.5 *Treatment for methamphetamine psychosis*

Several case studies of treatments such as risperidone (Misra & Kofoed, 1997) and olanzapine (Misra, Kofoed, Oesterheld & Richards, 2000) for methamphetamine psychosis have been published, and several papers on methamphetamine psychosis refer to the use of antipsychotic medication to ameliorate some of the symptoms, at least in the acute phase (e.g. Sato, 1986; Curran et al, 2004). However, a Cochrane review in 2004 found no controlled trials of treatment for methamphetamine psychosis (Srisurapanont, Kittiratanapaiboon, & Jarusuraisin, 2004).

2.3 Methamphetamine use in the four sites

2.3.1 *Methamphetamine use in Australia*

Methamphetamine use and abuse is extremely prevalent in Australia. The 2003 Global Survey of Ecstasy and Amphetamines published by the Office on Drugs and Crime (Vienna) reported that Australia ranked second after Thailand in levels of methamphetamine abuse in 2001 (United Nations Office of Drugs and Crime, 2003). Local monitoring reports have identified a steady increase in the proportion of illicit drug users reporting methamphetamine use by all routes. In 2004, 48% of participants taking part in a National survey of injecting drug users (N=943) reported amphetamine as the first drug ever injected and 29% reported that methamphetamine (including pharmaceutical stimulants) was the drug most often injected in the month prior to participating in the survey (Stafford et al., 2005). Methamphetamine is commonly known as 'meth', 'crystal meth' or 'speed' in Australia.

2.3.2 *Methamphetamine use in Thailand*

Worldwide, Thailand has recorded the highest levels of methamphetamine abuse according to the 2003 Global Survey of Ecstasy and Amphetamines. Thailand has had a recognised methamphetamine problem for a number of years, primarily among occupational groups such as truck and bus drivers, fishermen, construction labourers and factory workers. However, in recent years Thailand's methamphetamine problem has significantly increased with widespread abuse being reported among school-age children (United Nations Office of Drugs and Crime, 2003). Methamphetamine is commonly known as 'ya ba' in Thailand.

2.3.3 Methamphetamine use in the Philippines

Methamphetamine abuse in the Philippines is almost as prevalent as in Thailand, but is lower than in Australia. According to the 2003 Global Survey of Ecstasy and Amphetamines 70-90% of drug abuse is related to methamphetamine. According to the latest population estimates approximately 1.3 million or 2.7% of 15 to 64 year olds may be using methamphetamine in the Philippines (United Nations Office of Drugs and Crime, 2003). Methamphetamine is commonly known as 'shabu'.

2.3.4 Methamphetamine use in Japan

Methamphetamine is the most common drug of abuse in Japan according to the 2003 Global Survey of Ecstasy and Amphetamines. Japan has a long history of amphetamine use dating back to the end of the Second World War when large government stockpiles of amphetamines became widely available to the general public. Crystal methamphetamine is the predominant form used within Japan, with powdered methamphetamine the least common form (United Nations Office of Drugs and Crime, 2003).

2.4 Summary

The increase in use of amphetamine-type substances and methamphetamine in particular throughout the world has serious implications for law enforcement and health agencies. The rising number of cases of methamphetamine-induced psychosis is presenting a challenge to medical practitioners from a diagnosis and treatment perspective. The preceding literature review has provided a description of the disorder and highlighted areas where knowledge is deficient.

The present project will provide an opportunity for cross-cultural comparisons of the nature and antecedents of methamphetamine-induced psychosis. The results will allow identification of potential opportunities for appropriate interventions for individuals who experience methamphetamine-induced psychotic disorders, and provides the context for the development or refinement of treatment approaches for this condition.

3.1 Method

3.1.1 Study questionnaire

The questionnaire (Appendix 1) was designed and developed by Associate Professor Robert Ali (Drug and Alcohol Services South Australia, Adelaide, South Australia) and Dr. John Marsden (National Addiction Centre, Institute of Psychiatry, London) with input from the other principal international investigators. The questionnaire focused on demographic information, sexual and risk taking behaviour, legal issues, the participants' use of methamphetamine over various time periods, their other drug usage and psychiatric symptoms. The interview schedule also incorporates several established assessment tools for measuring various health parameters and symptom profiles.

Incorporated into the study questionnaire are items from the HIV Risk Taking Behaviour Scale (HRBS), one of the six outcome domains assessed in the Opiate Treatment Index (Darke, Hall, Wodak, Healther & Ward, 1992). The HRBS consists of a set of items focussed on injecting practices and sexual behaviour that places individuals at risk of either contracting or transmitting Human Immunodeficiency Virus (HIV). This instrument is of demonstrated validity and reliability (Darke et al., 1992).

The SF-12 (Ware, Kosinski & Keller, 1996) was also incorporated into the interview to provide a measure of patients' perceived health status. The SF-12 is a shorter version of the SF-36 and is comprised of eight subdomains: general health, physical functioning, role functioning (physical), role functioning (emotional), bodily pain, vitality, mental health and social functioning. Two measures are produced via a weighted sum of all 12 items, creating separate composite scores for patients' physical and mental health. The Physical Component Summary (PCS) score focuses mainly on limitations in physical functioning, role limitations due to physical health problems, bodily pain and general health, whereas the Mental Component Summary (MCS) focuses mainly on role limitations due to emotional problems, social functioning, mental health and vitality.

The Mini International Neuropsychiatric Interview (the MINI Plus) (Sheehan et al., 1998), a structured diagnostic interview, was used to investigate participants' psychiatric symptoms. The present research employed components M (Psychotic Disorders – Part 1), A (Major Depressive Episode), B (Dysthymia), D ((Hypo) Manic Episode), and J (Post-traumatic Stress Disorder).

Also incorporated to assess participants' psychiatric symptoms was the Manchester Scale (Krawiecka, Goldberg & Vaughan, 1977). This tool consists of eight 5-point rating scales which assess the severity of patients' psychiatric symptoms in the following areas:

- Depression
- Anxiety
- Coherently expressed delusions
- Hallucinations
- Incoherence and irrelevance of speech
- Poverty of speech, muteness
- Flattened / incongruous affect
- Psychomotor retardation

Ratings are made on the scale according to patients' behaviour and replies to questions, with each symptom being rated from "0" (absent) to "5" (severe).

The study questionnaire provided a structured interview format comprising forced-choice or short answer questions, which were recorded by the interviewers on the interview schedule. Due to the lack of published measures, many ordinal scales were designed for use in this study. These were presented to participants in the form of cue cards, from which participants could choose the response that best represented their situation.

3.1.2 Interviewers

The interviews were conducted by trained research officers at each participating site. However, in the case of the Philippines, it is likely that untrained medical interns performed some of the interviews.

3.1.3 Subject recruitment

The target population for the study was male and female methamphetamine users aged between 18 and 59 years who had been admitted to hospital due to a methamphetamine-induced psychotic disorder. The total number of participants recruited at each site is presented in Table 3.1.

Table 3.1 Location of data collection and number of interviews conducted at each site.

	Australia	**Japan**	**Thailand**	**Philippines**
Number of participants	50	43	50	50

Patients were identified as being potentially appropriate for the study (in terms of exhibiting symptoms of a drug-induced psychosis) by the ward-staff of the hospitals involved. Interviewers then visited the wards in which potential participants were inpatients, and reviewed case notes to determine whether the patient was suitable for the study and assess whether the patient had any recorded prior history of non-drug-induced psychotic disorder. Patients with prior history of non-drug-induced psychotic disorder (e.g. schizophrenia) were excluded from the study. Also excluded from the study were patients who posed a significant risk of violence to clinical staff, were at severe risk of self-harm, or who had impaired sensorium to such an extent that they could not participate adequately in the research.

Ideally, participants were recruited and interviewed within 3 to 7 days of admission to hospital. However, due to circumstances involving inter-hospital transfers and the often initially florid (and sometimes violent) nature of psychotic disorders, it was occasionally necessary to delay the interview for a longer period after admission.

3.1.4 Procedure

Potential participants were introduced to the interviewers by ward-staff, and a brief explanation of the nature and purpose of the study was given. Potential participants were then given an information sheet to read, and the consent form relevant to the hospital in which they were an inpatient, and asked whether they would like to participate in the research. If these patients agreed to participate in the research, and signed the consent form (retaining a copy of this and the information sheet for themselves), the researcher proceeded with the interview. Each interview took between 45 and 90 minutes. Interviewers were provided with duress alarms by ward staff as an additional safety precaution.

A template for the recording of data was developed by Drug and Alcohol Services South Australia in SPSS version 11 and used locally by all four participating countries for direct data entry. Due to the small number of participants recruited at each site, analyses were mainly descriptive. Where possible, inferential analyses i.e. Chi square or one-way ANOVA were conducted using SPSS for Windows version 11.0.

3.1.5 Ethics approval

Conduct of this study was approved in each country by the relevant human research ethics committees.

4.1 Demographic characteristics of the sample

4.1.1 Age and gender distribution

Table 4.1 presents the results of a comparison between countries by age and gender. As can be seen the median age of participants ranged from 23 to 29, the youngest participants came from Thailand (median 23 years) while Japan (median 29 years) registered the oldest participants in the study. Japanese participants were significantly older than participants from other countries particularly in comparison with the Thai participants, $F(3) = 6.047$, $p = 0.001$.

Table 4.1 Age and gender by country

		Australia (N = 50)	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Age*	Mean	26.5	31.1	25.3	26.0
	St Deviation	6.0	9.4	7.3	5.6
	Median	26.0	29.0	23.0	25.0
	Range	18 - 42	17 - 53	17 - 48	17 – 42
Gender**	% Male	76.0	60.5	82.0	78.0
	% Female	24.0	39.5	18.0	22.0

* $F(3) = 6.05$, $p = 0.001$, ** $\chi^2(3) = 6.34$, $p = 0.096$

With respect to gender, each country had a greater number of male than female participants. There was some fluctuation in the distribution of males and females between the four countries but the differences did not prove to be significant. Overall Thailand had the highest proportion of males (82%) and Japan the lowest (60.5%).

4.1.2 Educational profile

There were significant differences between each of the countries with respect to education. As can be seen in Table 4.2 the majority of participants in each country had at least some secondary education. A greater percentage of participants from the Philippines (20%) had completed some form of university study, in contrast there were no part or otherwise university educated participants from Thailand.

Table 4.2 Education level attained by country

Percentage of participants		**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Education level*	Some primary	4.0	-	36.0	18.0
	Some secondary	76.0	83.7	50.0	48.0
	Some trade or tech	16.0	4.7	14.0	14.0
	Some university	4.0	7.0	-	20.0
	Other	-	4.7	-	-

*Includes those who completed each level

A variable reflecting attainment of some level of post secondary education was created by collapsing the trade/tech and university categories. A Chi square analysis revealed a significant relationship between country and higher level of education obtained by the participants, with participants from the Philippines more likely to have received some university education and those from Thailand more likely to have only received some primary education, $\chi^2(6) = 39.994$, $p = 0.000$.

4.1.3 Employment profile

A high rate of unemployment across the four countries was identified (Table 4.3). Of the thirteen Australian participants (26%) who reported being in the "other" category, three people reported they performed home duties while ten others did not specify. While the employment profiles for Australia, Japan and the Philippines were similar, the profile of Thai participants was very different. A comparison between those who were employed full-time with others, confirmed the significance of this relationship, $\chi^2(3) = 23.258$, $p = 0.000$.

Table 4.3 Employment status by country

Percentage of participants		**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Employment status	Full-time work	8.0	14.0	42.0	12.0
	Part-time work	10.0	18.6	22.0	18.0
	Unemployed	52.0	60.5	30.0	68.0
	Student pt-time	2.0	-	2.0	-
	Student f-time	2.0	4.7	4.0	2.0
	Other	26.0	2.3	-	-

For those engaged in some form of employment, there was no consistent trend in occupational category, within or between countries other than in Thailand where the majority were employed as labourers (Table 4.4).

Table 4.4 Occupational category by country

Number of participants		**Australia**	**Japan**	**Thailand**	**Philippines**
Type of work*	Manager/Admin	-	2	-	1
	Professional	1	1	4	-
	Tradesperson	4	-	7	-
	Clerk	1	2	1	-
	Sales person	1	1	3	2
	Machine operator/driver	1	1	2	2
	Labourer	4	4	15	5
	Other	-	-	-	6

* Six individuals from the Philippines identified their occupation as 'sex worker' in response to the 'other' category.

4.1.4 Marital status and living arrangements

Table 4.5 presents information on the marital status of participants across the four countries. Within each country, the majority of participants were single. A comparison across countries reveals that Australia (82%) recorded the highest number of single participants, Japan (21%) had the highest number of divorced participants, Thailand (18%) had the highest number of married participants, and the Philippines (18%) had the highest number of cohabitating participants.

Table 4.5 Marital status by country

Percentage of participants		**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Marital status	Married	6.0	4.7	18.0	8.0
	Cohabitating	8.0	9.3	6.0	18.0
	Single	82.0	55.8	62.0	68.0
	Divorced	2.0	20.9	8.0	-
	Separated	2.0	7.0	4.0	6.0
	Other	-	2.3	2.0	-

The differences between the four countries with respect to marital status need to be seen within the context of difference socio-cultural influences on the status of

marriage and divorce. Similar influences may impact on the living arrangements of participants as seen in Table 4.6 where significant differences were identified by country.

Table 4.6 Living arrangements

Percentage of participants		**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 47)**	**Philippines (N = 49)**
Living arrangements	Parents in house/flat*	34.0	46.5	83.0	65.3
	Friends in house/flat	14.0	-	-	2.1
	Partner/children in house/flat	16.0	18.6	4.3	28.6
	Boarding	4.0	-	-	2.0
	Live alone in house/flat	16.0	27.9	12.8	2.0
	Refuge/shelter	2.0	2.3	-	-
	Other	14.0	4.7	-	-
Satisfaction with living arrangements	mean rating** (st dev) (1 = very dissatisfied; 7 = very satisfied)	4.50 (2.19)	3.68 (1.40)	4.86 (1.85)	5.02 (1.80)

* Living with parents versus all others $\chi^2(3) = 22.508$, p = 0.000, ** F(3) = 4.525, p = 0.004

Overall, significant majorities of Thailand (83%) and Philippine (65%) participants were still residing with their parents compared to Australian (34%) and Japanese (47%) participants. An examination of the profile of living arrangements each of the countries reveals the following:

- Australian participants showed little consistency in their living arrangements other than the majority reporting living with parents. Responses were almost equally divided between living with friends, partners and alone.
- Japanese participants had a higher reported rate of living with parents. Sizable proportions also reported living alone and with partners.
- The overwhelming majority of Thailand participants reported living with parents. Only 4.3% of the sample reported living with a partner with the remainder reporting living alone.
- Philippine participants were more likely to report living with parents or partners with very few reporting alternative living arrangements.

Participants' level of satisfaction with their current living situation was examined using a 7 point scale where 1 indicated "very dissatisfied", 4 indicated "satisfied", and 7 indicated "very satisfied". The overall ratings indicated a basic level of satisfaction among all participants. Participants from the Philippines (mean = 5.02, st. dev. = 1.80) recorded the highest satisfaction rating while Japanese (mean = 3.68, st. dev. = 1.40) participants recorded the lowest. The relationship between satisfaction with living arrangements and country was significant, $F(3) = 4.525$, $p = 0.004$.

4.1.5 Participant profiles

The demographic information gathered from the participants has been combined to construct a profile of methamphetamine psychosis patients for each country. The results demonstrate a high number of similarities and only one point of discord among each country:

- Australia: Single, male in mid-twenties, some secondary education, currently unemployed and living with parents.
- Japan: Single, male in late-twenties, some secondary education, currently unemployed and living with parents.
- Thailand: Single, male early to mid-twenties, some secondary education, employed full-time as a labourer and living with parents.
- Philippine participant: Single, male in mid-twenties, some secondary education, currently unemployed and living with parents.

4.1.6 Summary

Both similarities and differences were identified in the demographic characteristics of each country's participants. Overall, the majority of participants were male and in their mid to late twenties with at least some secondary education. While the proportion of males and females were consistent between Australia, Thailand and the Philippines there was a much higher proportion of females within the Japanese sample. Differences appeared when other demographic categories were examined, for example participants from Thailand were much more likely to be employed and living with parents than participants from the other three countries.

4.2 Source of referral and past diagnoses

4.2.1 Sources of referral for hospital admission

Information on source of referral is presented in Table 4.7 along with information regarding who accompanied the participant to hospital. Data on the source of referral

for Japanese participants were unavailable. A greater proportion of participants from Japan (53.5%), Thailand (76%) and the Philippines (90%) were referred to hospital by family members than Australian (26%) participants. Australian participants were referred in roughly equal proportions by themselves (32%), family (26%) and police (30%).

Table 4.7 Source of referral for hospital admission

Percentage of participants		**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Source of referral to hospital*	Self	32.0	27.9	16.0	6.0
	Family	26.0	53.5	76.0	90.0
	Friend	2.0	2.3	2.0	-
	Welfare	-	9.3	2.0	-
	Police	30.0	30.2	4.0	2.0
	Other	10.0	4.7	-	2.0
Persons accompanying patient at admission**	No-one	16.0	9.3	2.0	-
	Family	32.0	72.1	94.0	98.0
	Friend	2.0	2.3	4.0	2.0
	Welfare	-	4.7	-	-
	Police	42.0	30.2	4.0	2.0
	Other	18.0	7.0	-	2.0

** more than one response was allowed

Distinct differences can be seen among the countries with respect to who accompanied the participants to hospital. Participants from Japan (72%), Thailand (94%) and the Philippines (98%) were accompanied by family members in greater proportions than Australian (32%) participants who were more likely to have been accompanied by police.

4.2.2 Past psychiatric history

Information about participants self-reported past psychiatric history is presented in Table 4.8. Data for Thailand were unavailable. As can be seen in Table 4.8 not all participants had a history of past psychiatric illness. Participants from the Philippines were less likely to have recorded a past diagnosis while Australian participants were more likely to have had multiple past psychiatric conditions. The diagnosis of a substance-induced psychosis had been made in approximately equal proportions across the three countries. (Note that some participants reported both no past history and multiple episodes)

Table 4.8 Past psychiatric history

Number of participants		**Australia (N = 50)**	**Japan (N = 38)**	**Philippines (N = 50)**
Past psychiatric history*	None	21	21	35
	At least one past psychiatric diagnosis	29	17	15
	Two past psych diagnoses	7	7	5
	Three past psych diagnoses	13	1	1
	Substance-induced psychosis	18	16	16

* data not available for Thailand

4.2.3 Medications prior to admission

An analysis of medications participants were reportedly taking prior to admission reveals that the Japanese participants were the most highly medicated group and participants from the Philippines the least (see Table 4.9). Participants from Thailand and the Philippines were less likely to be taking antipsychotic medication in comparison to Australian and Japanese participants. The most commonly reported antipsychotic was different for each country, no doubt reflecting differences in both availability and prescribing practices.

Table 4.9 Current medications (prior to admission)

Number of participants	**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
No medication	36	23	47	44
Total number of medications identified	14	19	3	7
Number of antipsychotics	9	11	3	1
Most used antipsychotic	Olanzapine	Haloperidol	Trifluoperazine	Chlorpromazine

4.2.4 Participant profiles

The information gathered from the participants has been combined to construct a profile of the source of referral to hospital for this treatment episode for each country along with past psychiatric history. The results demonstrate distinct differences among each country:

- Australia: More likely to be self or police referred to hospital and, perhaps as a consequence, more likely to be accompanied on admission by police. Less

likely to be taking medication. More likely to have had at least one past psychiatric diagnosis of which substance-induced psychosis was one.

- Japan: More likely to be accompanied on admission by family. More likely to be taking medication. More likely to have had at least one past psychiatric diagnosis with a high probability of a past diagnosis of a substance-induced psychosis.
- Thailand: More likely to be referred and accompanied to hospital by family. Highly unlikely to be taking medication.
- Philippines: More likely to be referred and accompanied to hospital by family. Unlikely to have a past diagnosis of a psychiatric disorder but where present a high probability of a past diagnosis of a substance-induced psychosis exists. Highly unlikely to be taking medication.

4.2.5 Summary

Distinct differences between the countries were identified when the source of referral and past diagnoses variables were examined. Australian participants reported the least amount of family involvement in both referral and accompaniment to hospital than the other countries. Almost all referrals from Thailand and the Philippines and over half from Japan came from family members and the overwhelming majority of participants from all countries except Australia had a family member with them when they were admitted to hospital. It is possible that cultural differences and access to alternative health agencies may have influenced the results with respect to the person referring the participant to hospital. Referral practices may differ between countries and the extremely high number of police referrals for Australian participants by comparison warrants further investigation.

A number of participants who stated that they had received a past psychiatric diagnosis reported that they had previous diagnoses for a substance-induced disorder (data were unavailable for Thailand). A substantial number of participants had experienced previous episodes of a substance-induced disorder.
Perhaps unsurprisingly the Australian and Japanese participants were the most highly medicated, probably as a result of the availability of medicines. Despite this difference, the majority of all participants were not taking any prescribed medicine at the time of their admission to hospital.

4.3 Extent, patterns and routes of methamphetamine administration

4.3.1 Lifetime amphetamine type substance use

The mean age at which participants first used an amphetamine type substance ranged from a median of 16 years of age in Australia to 19.5 years of age in the Philippines (see Table 4.10). While Australian participants had the lowest median age of initiation, there was no significant difference between the countries overall, $F(3) = 1.235$, $p = 0.298$.

Table 4.10 Age of first methamphetamine use

		Australia (N = 50)	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Age of first use*	Mean	18.48	19.58	19.78	20.74
	Median	16.0	19.0	18.0	19.5
	Std Dev	5.9	4.9	6.5	5.99
	Range	13 - 40	10 - 36	13 - 39	12 - 40

* $F(3) = 1.235$, $p = 0.298$

An examination of the types of amphetamines, other than methamphetamine, used by the participants demonstrated a range of experience according to country (see Table 4.11). Australian participants had used a wider range of amphetamine type substances in their lifetime compared to the other countries. In stark contract to both Australia and Japan, participants from Thailand and the Philippines recorded use of only two amphetamine-type stimulants.

Table 4.11 Types of amphetamine-type stimulants used

Percentage having used each type	**Australia (N = 50)**	**Japan (N = 42)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Ephedrine	40.0	9.5	-	2.0
Ecstasy	72.0	9.5	4.0	-
Caffeine tablets	24.0	2.4	-	-
Methylphenidate	12.0	2.4	-	-
Dexamphetamine	52.0	-	-	-
Other	4.0	-	-	-

4.3.2 Frequency of methamphetamine use in last 12 months

Participants were asked to nominate how often they had used methamphetamine in the last 12 months. The results are presented in Table 4.12. The majority of participants in all countries except for the Philippines reported using methamphetamine at least weekly. Thai participants reported weekly use as the norm compared with other country's participants who recorded a broader spectrum of use patterns. Participants from the Philippines reported monthly use more often than weekly use. Very few participants, regardless of country, reported using methamphetamine daily.

Table 4.12 Frequency of methamphetamine use

Percentage of participants	**Australia (N = 50)**	**Japan (N = 42)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Daily	8.0	4.8	8.0	2.0
Weekly	60.0	54.8	78.0	40.0
Monthly	32.0	40.5	14.0	58.0

Information was also obtained on the frequency of methamphetamine use in the week prior to admission and the results are presented in terms of the hours expiring since the participant's last use before admission and the average number of days used in the week leading up to admission (see Table 4.13). The time between last use and admission was least for participants from the Philippines, a median of 5 hours, and the most for Australian and Japanese participants with a median of 48 hours. Caution needs to be exercised in interpreting these results as it is unclear whether participants were in custody for a period of time prior to admission to hospital which may have made access to methamphetamine difficult.

Table 4.13 Use of methamphetamine in the lead up to admission

Levels of methamphetamine use prior to admission		**Frequency of use**			
		Mean	Median	SD	range
Australia (N=50)	No. of hours since last use before admission	110.88	48.0	191.17	1 - 1200
	Average days used in week prior to admission	2.94	2.0	2.54	0 - 7
Japan (N=43)	No. of hours since last use before admission	73.85	48.0	123.74	0 – 720
	Average daily use in week prior to admission	2.57	2.0	1.80	0 – 7
Thailand (N=50)	No. of hours since last use before admission	39.64	24.0	38.37	1 – 168
	Average daily use in week prior to admission	3.66	3.0	2.19	1 – 7
Philippines (N=50)	No. of hours since last use before admission	22.38	5.0	43.34	1 – 240
	Average daily use in week prior to admission	1.90	1.0	1.68	0 - 7

Average daily use in the week prior to admission was fairly similar across the four countries with use reported on one to three days. The participants from the Philippines recorded the lowest daily use and Thailand participants the highest.

4.3.3 Route of methamphetamine administration

The routes by which participants administered methamphetamine was assessed by asking which of four methods they had ever employed, the results are presented in Table 4.14. It is evident from Table 4.14 that considerable variation is present in the route of administration of methamphetamine by country. Within Australia, participants were equally as likely to have injected, swallowed or snorted methamphetamine compared to smoking. Japanese participants were primarily injectors, closely followed by equal experience in smoking and swallowing with least experience in snorting. Participants from Thailand and the Philippines were almost exclusively smokers of methamphetamine, although a sizeable proportion of Thai participants had swallowed methamphetamine. A comparison of route of administration by country confirmed the significant relationship between country and preferred route of administration.

Table 4.14 Routes of methamphetamine administration

Percentage of participants	**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Ever smoked	20.0	41.9	96.0	100.0
Ever injected	80.0	97.7	-	-
Ever swallowed	78.0	41.9	42.0	4.0
Ever snorted/sniffed	86.0	11.6	-	10.0

A comparison of smoking and injecting across the four countries highlights the differences in preferred route of administration in the three months prior to admission (see Table 4.15). Apart from a small number of Japanese participants, a dichotomy between smoking and injecting can be readily seen with Thailand and the Philippines participants not engaging in any injecting behaviour in the three months before admission.

Table 4.15 Smoking and injecting patterns in the last three months

Percentage of participants	**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Smoking	-	18.6	68.6	98.0
Injecting	92.5	90.7	-	-

The data in Table 4.16 provides information on the frequency and route of recent methamphetamine administration in the three months prior to admission and contrasts this with the frequency of administration for all routes combined over the past three and 12 months. All participants reported an increase in weekly use by all routes of administration in the three months prior to admission when compared to the 12 months prior to admission. Only Japanese participants recorded a decrease in weekly methamphetamine use by injection and/or smoking in the three months prior to admission when compared to administration by all routes in the preceding 12 months. Australian participants went from 68% reporting weekly use over the proceeding 12 months to 80% reporting weekly injecting in the three months prior to admission. Participants from the Philippines went from 42% reporting weekly use over 12 months to 98% reporting weekly smoking in the three months prior to admission. Finally, Thai participants went from 86% reporting weekly use over 12 months to 96% reporting weekly smoking in the three months prior to admission.

Table 4.16 Routes and frequency of methamphetamine administration

		Australia	Japan	Thailand	Philippines
Inject	N	32 (40)	23 (43)	-	-
	% used weekly in last 3 months	80.0	53.5	-	-
Smoke	N	-	8 (43)	48 (50)	49 (50)
	% used weekly in last 3 months	-	18.6	96.0	98.0
All routes	N	34 (50)	25 (43)	43 (50)	21 (50)
	% used weekly in last 12 months	68.0	58.1	86.0	42.0
	% used weekly in last 3 months	96.0	67.4	88.0	46.0

4.3.4 Availability and substitution

Participants from each country reported periods where they were unable to obtain methamphetamine (see Table 4.17). Japanese participants experienced the greatest shortage in availability compared to the other three countries. Not all participants who were unable to obtain methamphetamine resorted to drug substitution with Australian participants most likely to use another substance followed by participants from Japan, Thailand and the Philippines. Alcohol was the most commonly substituted substance across all countries.

Table 4.17 Substances used when methamphetamine not available

Percentage of participants	**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
% unable to obtain methamphetamine	66.0	76.7	64.0	60.0
Used another substance (N)	51.3 (33)	37.2 (16)	30.0 (15)	20.0 (10)
Top three substituted substances (N)	Alcohol (10)	Alcohol (14)	Alcohol (10)	Alcohol (6)
	THC (8)	Hypnotic (2)	Caffeine (3)	Cannabis (3)
	Benzo (4)	Thinner (2)	Glue (3)	-

4.3.5 Other drug use

In addition to questions regarding their methamphetamine use, participants were asked whether they had used a range of other drugs, and the age at which they had first tried these other drugs. These results are presented in Table 4.18.

Alcohol was the most commonly used drug for each participating country followed by cannabis. Australian participants reported the widest range of use of other drugs as well as the earliest age of initiation for every drug except cocaine and ketamine where one participant from the Philippines reported an age of first use at 15 and 17 respectively.

Table 4.19 reports the participants' level of use of other drugs in last 12 months and last 90 days. As can be seen, alcohol use is prevalent and frequent in all participants. Over three quarters of Australian participants reported weekly use of cannabis. Weekly use of drugs other than alcohol and cannabis was rare in Japan, Thailand and Philippine participants. The absence of a reported increase in weekly use of other substances, particularly alcohol, in the three months prior to admission suggests that use of these substances is an unlikely explanation for the current episode of psychosis.

Table 4.18 Other drugs ever used and age of first use

		Australia (N = 50)	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
alcohol	% ever used	96.0	88.4	100.0	62.0
	Median age	14	16	15	17
	Range	4 - 25	8 - 30	7 - 32	13 - 35
cannabis	% ever used	94.0	39.5	48.0	38.0
	Median age	14	19	16.5	16
	Range	7 – 23	15 – 40	13 – 28	13 – 25
LSD/mushrooms	% ever used	80.0	4.7	-	2.0
	Median age	16	22	-	16
	Range	11 - 31	19 - 25	-	16 – 16
cocaine	% ever used	56.0	11.6	2.0	2.0
	Median age	21	23	20	15
	Range	13 - 35	18 - 26	20 - 20	15 – 15
heroin	% ever used	52.0	4.7	12.0	-
	Median age	19	25.5	19.5	-
	Range	13 - 35	19 – 32	16 - 20	-
illicit benzodiazepines	% ever used	48.0	34.9	-	-
	Median age	18	21	-	-
	Range	9 - 28	16 – 51	-	-
other illicit opiates	% ever used	38.0	-	-	-
	Median age	21	-	-	-
	Range	15 – 32	-	-	-
solvents	% ever used	38.0	51.2	30.0	-
	Median age	14	15	15	-
	Range	8 - 26	11 - 19	9 - 19	-
crack cocaine	% ever used	24.0	2.3	-	-
	Median age	18.5	19	-	-
	Range	12 - 30	19 – 19	-	-
ketamine	% ever used	20.0	-	-	2.0
	Median age	20	-	-	17
	Range	15 - 36	-	-	17 - 17

Table 4.19 Use of other drugs in last 12 months and last 90 days

Number of participants using drug at least weekly	Australia		Japan		Thailand		Philippines	
	Weekly use in 12 months	Weekly use in 3 months	Weekly use in 12 months	Weekly use in 3 months	Weekly use in 12 months	Weekly use in 3 months	Weekly use in 12 months	Weekly use in 3 months
alcohol	18	15	21	25	22	21	6	7
cannabis	37	37	-	-	1	2	7	6
LSD/mushrooms	1	1	-	-	-	-	-	-
cocaine	-	-	-	-	-	-	-	-
heroin	3	0	-	-	-	-	-	-
illicit benzodiazepines	4	3	6	6	-	-	-	-
other illicit opiates	1	1	-	-	-	-	-	-
solvents	-	-	2	2	1	1	-	-
crack cocaine	-	-	-	-	-	-	-	-
ketamine	-	-	-	-	-	-	-	-

4.3.6 Participant profiles

The information gathered from the participants has been combined to construct a profile of the extent, patterns and routes of methamphetamine administration for each country. The results demonstrate distinct differences among each country:

- Australia: Typically commenced using methamphetamine at age 16. Is experienced in using a wide range of amphetamine type substances including ecstasy and dexamphetamine by a diverse range of routes on a weekly basis, a high level of injecting is seen although less likely to engage in smoking of methamphetamine. Likely to substitute methamphetamine with alcohol when methamphetamine is unavailable and has used a wide range of other substances over their lifetime, including other stimulants such as crack cocaine. Frequent alcohol and cannabis use (weekly) is high among this population.
- Japan: Typically commenced using methamphetamine at age 19. Is experienced in using a range of amphetamine type substances including ephedrine and ecstasy by a diverse range of routes on a weekly basis, a high level of injecting is seen although less likely to engage in snorting of methamphetamine. Likely to substitute methamphetamine with alcohol when methamphetamine is unavailable and has used a wide range of other substances over their lifetime. Frequent alcohol use (weekly) is high among this population.

- Thailand: Typically commenced using methamphetamine at age 18. Has experience in using only two amphetamine type substances, methamphetamine and ecstasy, primarily through smoking and swallowing, highly unlikely to have injected methamphetamine. Likely to substitute methamphetamine with alcohol when methamphetamine is unavailable and has limited use of other substances over their lifetime other than cannabis and solvents. Frequent alcohol use (weekly) is high among this population.
- Philippines: Typically commenced using methamphetamine at age 20. Has experience in using only methamphetamine, primarily through smoking and less often through swallowing and snorting, highly unlikely to have injected methamphetamine. Has occasionally used alcohol as a substitute for methamphetamine and has limited use of other substances over their lifetime other than cannabis. Frequent alcohol use (weekly) is not as high among this population.

4.3.7 Summary

There were few similarities between the participants from each of the four countries concerning the extent, patterns and routes of methamphetamine administration. However, the majority of participants from all four countries commenced using methamphetamine in their late teens and all participants had increased their frequency of use in the months, days and hours leading up to admission to hospital. Australian participants were by far the most experienced drug users with respect to the number of different drugs that they had tried in their lifetime and the age at which they began to use methamphetamine. In contrast, participants from the Philippines and Thailand had used a much smaller range of drugs, which could be related to availability rather than choice. However, it should also be noted that methamphetamine is available in the Philippines at a lower cost than ecstasy and other stimulants (2006, Sunga A., personal communication). Interestingly, Australian participants also recorded a high rate of cannabis use compared to participants from the other three countries.

A dichotomy appeared with respect to the route of administration of methamphetamine which was not unexpected. Japanese and Australian participants were predominantly injectors of methamphetamine while participants from the Philippines and Thailand were almost exclusively smokers.

4.4 Consequences of methamphetamine use

4.4.1 Methamphetamine abuse and dependence

Participants were asked questions devised to address the DSM-IV criteria for methamphetamine abuse. To qualify for a diagnosis of methamphetamine abuse, participants had to indicate that they had experienced at least one of the features listed in Table 4.20 within the previous 12 months.

Table 4.20 DSM-IV criteria for methamphetamine abuse

Percentage of participants	**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Meth use led to neglect or problems with social/home/work roles	92.0	93.0	74.0	64.0
Continued meth use despite social/relationship problems	82.0	86.0	86.0	76.0
Meth used in risky situations (e.g. driving vehicle)	74.0	65.1	58.0	16.0
Problems with the law relating to meth use	42.0	32.6*	24.0	10.0
Participants reporting one or more features qualifying for abuse diagnosis	98.0	97.7	92.0	82.0

* one missing response

The majority of participants from each country met the DSM-IV criteria for methamphetamine abuse. Australia (98%) recorded the highest number of participants meeting the abuse criteria and participants from the Philippines the least (82%). Nine participants from the Philippines did not meet the criteria for methamphetamine abuse, four from Thailand, and one each from Australia and Japan.

In terms of rank order, Australian and Japanese participants ranked neglect or problems with social/home/work roles as a result of methamphetamine abuse highest and problems with the law lowest. In comparison, participants from Thailand and the Philippines ranked continuing to use methamphetamine despite social/relationship

problems highest. Participants from the Philippines were less likely than participants from other countries to use methamphetamines in risky situations such as driving.

Participants were asked a series of questions (N = 7) to assess their level of dependence on methamphetamines. To qualify for a DSM-IV diagnosis of methamphetamine dependence, participants had to indicate that they had experienced at least three dependent symptoms. As can be seen in Table 4.21, the majority of participants from each country qualified for the diagnosis of methamphetamine dependence.

Table 4.21 Methamphetamine dependence symptoms by country

		Australia (N = 50)	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Dependent features*	Mean	4.78	4.14	4.64	3.64
	St Dev	1.87	1.70	2.06	1.97
	Median	5	5	5	3.5
	Range	1 - 7	0 - 6	1 - 7	0 - 7

The median number of methamphetamine dependent symptoms experienced by participants in Australia (5), Japan (5) and Thailand (5) was greater than the median number experienced by participants from the Philippines (3.5). Nine (21%) Japanese and Thai (18%) participants, seven (14%) Australians and 14 (28%) participants from the Philippines did not meet the criteria for methamphetamine dependence. Of these, six (12%) Australian and Thai participants, eight (18.6%) Japanese and seven (14%) participants from the Philippines met the criteria for methamphetamine abuse. Additionally, seven (14%) participants from the Philippines along with one (2%) Australian, one (2.3%) Japanese and three (6%) Thai participants failed to meet the DSM-IV criteria for either methamphetamine abuse or dependence.

Data from the seven methamphetamine dependence symptoms and the number of participants from each country reporting their occurrence are presented in Table 4.22 Distinct differences can be seen between the four countries in the frequency of which participants reported experiencing each symptom. Feeling sick or unwell as the effects of methamphetamine wore off was the most common symptom reported by Australian participants, continuing to use despite physical or psychological problems was common to Japanese participants, using methamphetamines in larger amounts

or longer than intended was the most common symptom among participants from Thailand, while having difficulty in cutting down, controlling how often or how much methamphetamine is used was the most common symptom reported by participants from the Philippines.

Table 4.22 DSM-IV criteria for methamphetamine dependence

Percentage of participants experiencing problems in last 12 months*	**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Have you had any difficulty in cutting down, controlling how often OR how much ATS you used?	48.0	34.9	74.0	70.0
Have you found that you needed to use more ATS to get the desired effect OR the same amount had less of an effect?	76.0	58.1	56.0	54.0
Have you reduced or given up work, recreational or social activities as a result of your ATS use?	74.0	83.7	70.0	60.0
Have you continued to use ATS despite having physical or psychological problems with it?	68.0	85.7*	64.0	56.0
Have you felt sick or unwell when the effects of ATS have worn off?	92.0	67.4	78.0	66.0
Have you used ATS in larger amounts OR for a longer period of time than you intended?	82.0	76.7	84.0	62.0
Have you taken large amounts of time obtaining OR using OR recovering from the effects of ATS?	88.0	69.8	82.0	58.0

* one missing response

Although not specifically listed as a DSM-IV criterion item, “craving” (feeling a strong or persistent desire to use the substance) is likely to be experienced by most (if not all) individuals with substance dependence (American Psychiatric Association, 1994). It was found that 98% of Japanese participants, 92% of Australian participants, 88% of participants from the Philippines and 76% of Thai participants experienced craving in the previous 12 months (see Table 4.23). The degree of craving varied between countries. Just over a third of all Australian participants experienced daily cravings in the previous year compared to small numbers of participants from the other three countries. Thailand recorded the highest number of participants claiming to have not experienced craving the past 12 months.

Table 4.23 Frequency of methamphetamine craving by country

Percentage of participants	Australia (N = 50)	Japan (N = 43)	Thailand (N = 50)	Philippines (N = 50)
Never	8.0	2.3	24.0	12.0
1 - 2 times in 12 months	4.0	4.7	6.0	16.0
3 - 5 times in 12 months	4.0	-	4.0	10.0
Once every two months	2.0	11.6	4.0	12.0
Monthly	2.0	7.0	6.0	8.0
2 - 3 times a month	8.0	14.0	12.0	12.0
Once a week	14.0	16.3	10.0	12.0
2 - 3 times a week	10.0	27.9	10.0	14.0
4 - 6 times a week	12.0	9.3	12.0	2.0
Daily	36.0	7.0	12.0	2.0

The patterns of methamphetamine abuse and dependence symptoms vary between country and the major findings are summarised below:

- Australia: The majority of participants met the DSM-IV criteria for methamphetamine abuse or dependence. Abuse of methamphetamine was more likely to lead to neglect or problems with social/home/work roles. The majority reported feeling sick or unwell as the effects of methamphetamine wore off. A third of participants reported experiencing cravings on a daily basis in the last 12 months.
- Japan: The majority of participants met the DSM-IV criteria for methamphetamine abuse or dependence. Abuse of methamphetamine was more likely to lead to neglect or problems with social/home/work roles. The majority reported continuing to use despite physical or psychological problems. Almost a third reported experiencing cravings 2 to 3 times a week in the last 12 months.
- Thailand: The majority of participants met the DSM-IV criteria for methamphetamine abuse or dependence. Most continued to use despite social/relationship problems. Experience of cravings was variable with a larger proportion reporting weekly rather than monthly cravings in the last 12 months, with almost one quarter reporting they did not experience cravings in the last 12 months.
- Philippines: The majority of participants met the DSM-IV criteria for methamphetamine abuse or dependence although a third was not considered dependent. Most continued to use despite social/relationship problems.

Experience of cravings was variable with a larger proportion reporting monthly rather than weekly cravings in the last 12 months.

4.4.2 Problems and experiences related to methamphetamine use

Participants were also asked about problems they had experienced as a consequence of using methamphetamine within the past 12 months. Each problematic experience was specifically attributed to methamphetamine. The results are presented in Table 4.24.

Table 4.24 Problems and experiences related to methamphetamine use

Frequency of problems experienced in last 12 months (%)		**never**	**rarely**	**sometimes**	**often**	**always**
How often have you felt sick or unwell as a result of using ATS?	Australia	20.0	24.0	34.0	14.0	8.0
	Japan	20.9	44.2	20.9	14.0	-
	Thailand	36.0	22.0	20.0	16.0	6.0
	Philippines	20.0	36.0	26.0	18.0	-
How often have you wished the effects of ATS would reduce or stop?	Australia	34.0	14.0	22.0	16.0	14.0
	Japan	44.2	18.6	20.9	9.3	7.0
	Thailand	24.0	6.0	38.0	26.0	6.0
	Philippines	16.0	28.0	24.0	20.0	12.0
How often have you felt anxious or nervous as a result of using ATS?	Australia	18.0	10.0	18.0	24.0	30.0
	Japan	7.0	9.3	30.2	39.5	14.0
	Thailand	26.0	14.0	12.0	32.0	16.0
	Philippines	18.0	26.0	28.0	20.0	8.0
How often have you had an accident and hurt yourself when using ATS?	Australia	68.0	20.0	8.0	2.0	2.0
	Japan	76.7	20.9	2.3	-	-
	Thailand	66.0	20.0	6.0	8.0	-
	Philippines	76.0	10.0	8.0	4.0	2.0
How often have you driven a vehicle (car/bike etc) when you were using ATS?	Australia (N = 49)	30.6	40.8	28.6	30.6	8.2
	Japan	23.3	16.3	24.9	14.0	11.6
	Thailand	28.0	16.0	22.0	24.0	10.0
	Philippines	92.0	2.0	2.0	4.0	-
How often have you missed work/school as a consequence of using ATS?	Australia (N = 49)	34.7	18.4	22.5	18.4	6.1
	Japan (N = 37)	21.6	13.5	24.3	29.7	10.8
	Thailand	52.0	10.0	12.0	24.0	2.0
	Philippines	58.0	14.0	12.0	14.0	2.0
How often have you broken the law to get money or property to obtain ATS?	Australia	70.0	10.0	8.0	10.0	2.0
	Japan (N = 42)	78.6	7.1	14.3	-	-
	Thailand	80.0	10.0	6.0	4.0	-
	Philippines	80.0	6.0	10.0	2.0	2.0

Frequency of problems experienced in last 12 months (%)		never	rarely	sometimes	often	always
How often have you broken the law when you were intoxicated on ATS?	Australia	60.0	18.0	16.0	4.0	2.0
	Japan	72.1	16.3	9.3	2.3	-
	Thailand	86.0	14.0	-	-	-
	Philippines	90.0	2.0	4.0	4.0	-
How often have you taken ATS when alone at home?	Australia	28.0	8.0	20.0	30.0	14.0
	Japan	7.0	14.0	20.9	25.6	32.6
	Thailand	16.0	26.0	20.0	14.0	24.0
	Philippines	38.0	32.0	20.0	6.0	4.0

Over half of all participants across the four countries reported never or rarely experiencing three of nine of the problems listed in Table 4.24. Variations in responses between countries to the remaining six problems were evident. Some of these differences are highlighted below:

- For the question of how often participants had wished the effects of ATS would stop or reduce Japanese participants were more likely to report never or rarely (63%). In contrast, a greater proportion of participants in Thailand (70%) reported that they sometimes or often wished the effects of ATS would stop or reduce.
- Japanese participants reported the highest levels of feeling anxious or nervous as a result of using ATS with just 16% reporting never or rarely feeling anxious or nervous, while participants from the Philippines reported the lowest levels with just 28% reporting feeling anxious or nervous sometimes, often or all of the time as a result of using ATS.
- Higher proportions of Australian participants (67%) were more likely to report driving under the influence of ATS. In comparison the lowest rates of driving under the influence were reported among participants from the Philippines where 92% reported never driving while using ATS.
- Participants from the Philippines were proportionately less likely to report using ATS when home alone (4%). In contrast 33% of Japanese participants reported always using ATS at home alone.

4.4.3 *Legal issues*

The present research also asked about the contact participants had experienced with the police and legal authorities. Participants from Thailand and the Philippines were less likely to report being apprehended or arrested compared to Australian and Japanese participants (see Table 4.25). Compared to the other three countries, a greater proportion of Japanese participants reported their arrests/apprehensions were drug related. While the median number of drug related convictions was similar for Australia, Japan and Thailand, Australia recorded the broadest range of number of convictions.

Table 4.25 Police apprehensions related to methamphetamine use

Percentage of participants		**Australia (N = 50)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Number of times apprehended or arrested	Never	14	18.6	56	84
	Once	20	11.6	28	8
	2 to 5	32	53.5	16	8
	6 to 10	18	9.3	-	-
	11 to 20	6	4.7	-	-
	21+	10	2.3	-	-
Any of these drug-related?	% yes (N)	52 (43)	67.4 (35)	30 (22)	50 (8)
Drug related convictions	Median convictions (range)	1.0 (0 - 80)	1.0 (0 - 6)	1.0 (1 - 2)	0.0 (0 - 3)

As can be seen in Table 4.26, fewer Thailand and Philippine participants had ever been in detention or prison compared to the Australians and Japanese. For those who had been imprisoned the median age of first incarceration was similar across the groups.

Table 4.26 Prison experiences related to methamphetamine use

Percentage of participants		**Australia (N = 43)**	**Japan (N = 36)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Have you ever been in prison/detention	No	55.8	41.7	84	84
	Yes	44.2	58.3	16	16
Imprisoned participants	Median age at first incarceration (range)	18 (12 - 32)	18 (14 - 51)	18 (12 - 32)	19 (14 - 37)

4.4.4 Social Context of use.

Participants were asked questions about the social context in which they used drugs. Table 4.27 presents data on amphetamine-type stimulant (ATS) use among the participants' family and intimate partners. The highest proportion of participants in a personal relationship (intimate partner) was from Thailand. Participants from Thailand also had the highest proportion of intimate partners who used ATS while participants from the Philippines had the highest proportion of family members reporting use of ATS.

Table 4.27 ATS use among family and intimate partners by country

Percentage of participants	**Australia (N=50)**	**Japan (N=43)**	**Thailand (N=50)**	**Philippines (N=50)**
Has an intimate partner	39*	68	76	34
Intimate partner uses ATS	31.5	48	58	23.5
Family member(s) uses ATS	25#	19#	22	40

*one participant refused to answer
#data missing for two Australian and 1 Japanese participant

Closer examination of the types of drugs used by participant's friends was carried out by asking how many of their friends were using a range of substances. The results are presented in Table 4.28. Participants from Australia and Japan had more poly-drug using friends than participants from Thailand or the Philippines.

Table 4.28 Drug use among friends by country

Number of participants		**Australia (N = 48)**	**Japan (N = 43)**	**Thailand (N = 50)**	**Philippines (N = 50)**
ATS	All of them	10	12	9	13
	More than half	11	0	10	8
	Half	13	3	14	25
	Less than half	11	20	14	4
	None of them	3	6	3	0
Ecstasy*	All of them	11	4	1	0
	More than half	6	0	1	0
	Half	5	1	0	0
	Less than half	5	3	0	0
	None of them	20	35	48	0
Cannabis	All of them	4	6	13	9
	More than half	8	0	0	2
	Half	11	1	3	9
	Less than half	24	5	1	1
	None of them	1	31	33	29
Cocaine	All of them	18	1	1	1
	More than half	1	0	0	0
	Half	3	0	0	1
	Less than half	3	1	0	0
	None of them	23	41	49	48
Heroin	All of them	14	0	2	0
	More than half	4	0	0	0
	Half	0	0	0	1
	Less than half	1	0	0	0
	None of them	29	43	48	49
Opium	All of them	3	0	5	0
	More than half	1	0	0	0
	Half	0	0	0	0
	Less than half	0	0	0	0
	None of them	44	43	45	0

* one missing response from Australian sample

4.4.5 Participant profiles

The information gathered from the participants has been combined to construct a profile of methamphetamine dependence and abuse as well as legal impacts and the social context of use. The results demonstrate distinct differences among each country:

- Australia: Highly dependent user with daily cravings, more likely to have been arrested or apprehended with approximately half of these arrests drug related. Likely to have a prison history. Unlikely to have an intimate ATS using partner but a number of family members and friends are ATS users. Has a number of ATS and poly-drug using friends.
- Japan: Highly dependent user with weekly cravings, more likely to have been arrested or apprehended with a high proportion of these drug related. More likely to have a prison history. Somewhat likely to have an intimate ATS using partner as well as family members who use ATS. Has a number of ATS and poly-drug using friends.
- Thailand: Dependent user with lower rates of craving (weekly rather than monthly), less likely to have been arrested or apprehended on drug related charges. Unlikely to have a prison history. Very likely to have an ATS using partner and likely to have ATS using family members and friends. Less likely to have poly-drug using friends.
- Philippines: Moderately dependent abuser with low rates of craving (monthly rather than weekly), highly unlikely to have been arrested or apprehended on any charges. Unlikely to have a prison history. Highly unlikely to have an intimate ATS using partner but very likely to have a number of ATS using family members and friends.

4.4.6 Summary

The majority of participants from each of the countries met the diagnostic criteria for methamphetamine abuse or dependence. A notable exception was reported with nearly a third of participants from the Philippines not meeting the criteria for methamphetamine dependence. Once again Australian participants recorded the more extreme levels of abuse or dependence and this was also true for self reported cravings for methamphetamines.

All participants listed a number of problems attributed to their use of methamphetamine but there was no consistency in the type of problems experienced by participants in each country. Higher arrest rates were noted for Australian and Japanese participants who also recorded higher rates of past imprisonment.

Participants from the Philippines and Thailand were more likely to have family and friends who used methamphetamine compared to Australian and Japanese participants suggesting either functional or a more social pattern of use. The main route of administration of methamphetamine in Thailand and the Philippines is smoking.

4.5 Physiological and psychological symptomatology

4.5.1 SF-12 Physical and mental health status summaries

Participants were administered the Short Form 12 (SF-12) (Ware et al., 1996), an instrument designed to assess quality of life (including general and psychiatric health). The time period for each question covered the month prior to admission to hospital. Responses to the 12 items are combined to produce summary scores reflecting participant's physical and mental health status. The greater the score, the less severe the disability.

Table 4.29 presents the proportions of the sample for each degree of disability, from no disability (indicated by physical or mental component summary scores greater or equal to 50), to severe disability (indicated by component summary scores of 29 or less).

Table 4.29 SF-12 Degrees of disability in participant group

Percentage of participants		**Australia (N=50)**	**Japan (N=43)**	**Thailand (N=50)**	**Philippines (N=49)**
Physical Disability Categories	None	28	16.3	38	75.5
	Mild	40	27.9	38	18.4
	Moderate	24	44.2	22	4.1
	Severe	8	11.6	2	2
Psychological Disability Categories	None	6	11.6	20	44.9
	Mild	6	25.6	22	40.8
	Moderate	36	32.6	34	14.3
	Severe	52	30.2	24	0

The majority of participants from Australia, Japan and Thailand experienced at least a mild physical disability. In contrast, the majority of participants from the Philippines experienced no physical disability. Japanese participants recorded the highest level of physical disability with over half of the sample recording a score in the moderate to severe range.

With respect to psychological disability, the participants from the Philippines again registered the lowest disability scores with the majority of participants having no or only mild psychological impairments. Australia had the highest overall proportion of participants in the severely psychologically disabled category. Japan and Thailand had similar distributions of severity.

4.5.2 Methamphetamine-induced psychosis

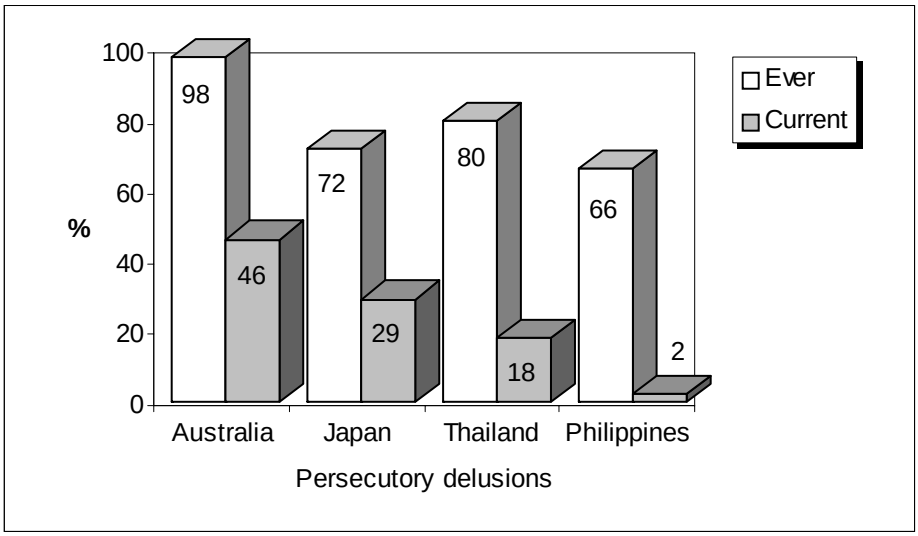
The initial diagnosis of methamphetamine-induced psychosis was confirmed using the MINI Plus (Sheehan et al., 1998). In addition to an overall diagnosis, the MINI Plus provides information on the presence of a range of psychological symptoms. All but 3 of the symptoms (disorganised speech, disorganised behaviour and flattened affect) reported were based on the participants perceptions over their lifetimes as well as at the time of interview (i.e. current), the other three were based on the assessing clinician's judgement of their current state. The following is an examination of these individual psychological symptoms, a comparison across the four countries and the proportions receiving current, and/or lifetime diagnoses of a drug-induced psychosis. While the study protocol included standardisation of the timing of delivery of the questionnaire (i.e. between days 3 and 7 of admission), this was not done in all cases. Therefore interpretation of results relating to "current" should be undertaken with caution.

Participants' perceptions

Psychological symptoms are presented here in order of their frequency of occurrence across all four countries if the participant reported they had *ever* experienced them. There were marked differences between reporting of having *ever* experienced and *currently* experiencing many of these symptoms and these are presented graphically.

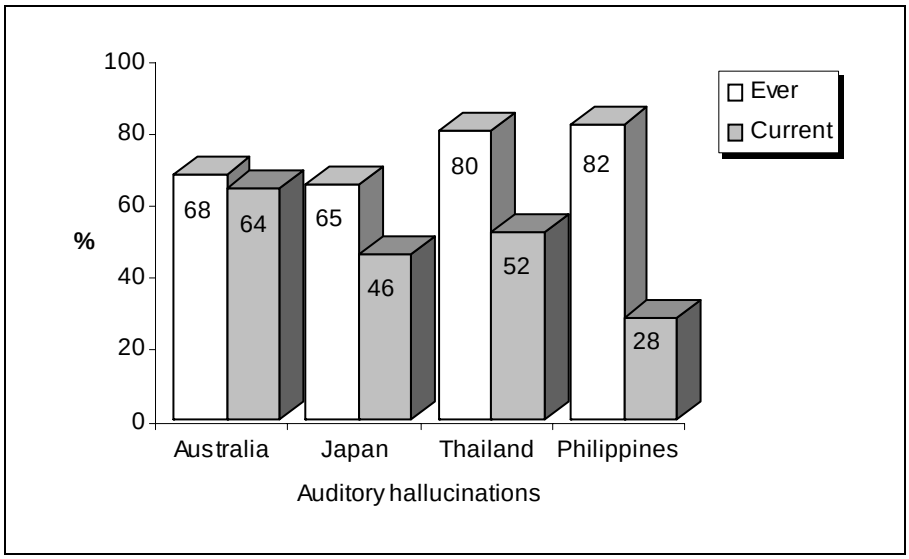
Persecutory delusions (Figure 4.1): Participants with persecutory delusions held fixed, false beliefs, had no insight into the cause of their delusions and believed them to be true. Two thirds or more of participants from each country had experienced persecutory delusions in their lifetime with an average of 80% of all participants having done so. A higher proportion of Australian participants had ever experienced persecutory delusions while participants from the Philippines recorded the lowest. In contrast, less than half of the participants from each country recorded current persecutory delusions (average across all four countries of approximately 24%), with participants from Thailand experiencing the lowest current occurrence. Just under half of all Australian participants reported currently suffering persecutory delusions.

Figure 4.1 *Percentage of participants reporting lifetime or current experience of persecutory delusions.*



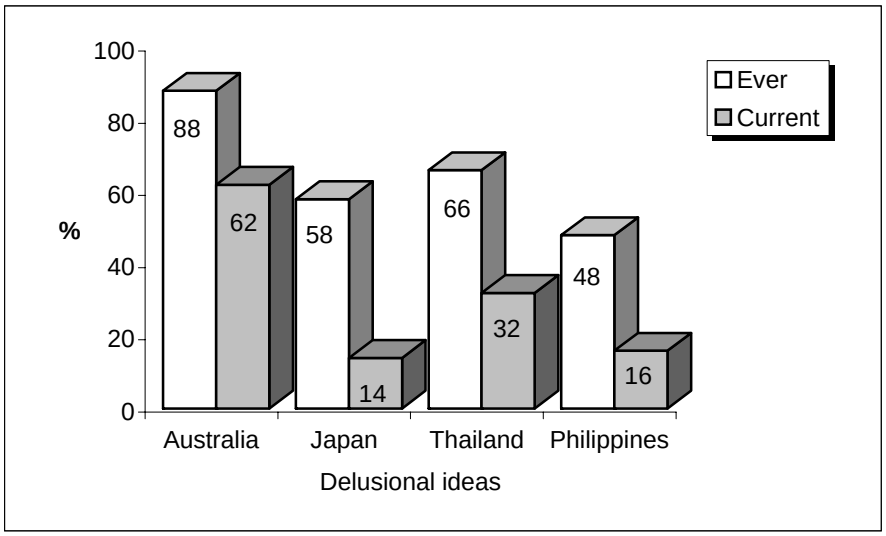
Auditory hallucinations (Figure 4.2): Large proportions of participants from each country recorded a lifetime incidence of auditory hallucinations, with an average of approximately 75% of all participants reporting this. Participants from the Philippines recorded the lowest levels of lifetime incidence of auditory hallucinations. An average of 47% of all participants reported they were currently experiencing auditory hallucinations. Approximately two-thirds of Australian participants reported currently experiencing auditory hallucinations while around half of Japanese and Thai participants also currently experienced auditory hallucinations. Participants in the Philippines experienced the lowest current proportion of auditory hallucinations.

Figure 4.2 *Percentage of participants reporting lifetime or current experience of auditory hallucinations.*



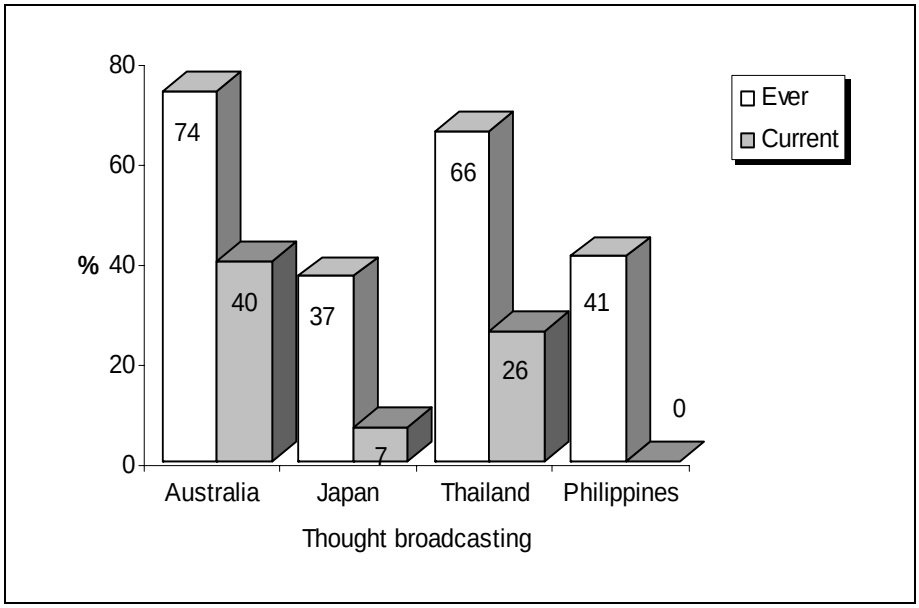
Delusional ideas *(*Figure 4.3): Participants with delusional ideas had insight into the cause of their ideas and understood them to be untrue. They reported that relatives or friends found their ideas to be strange or unusual. .An average of 65% of participants from all four countries had reportedly experienced delusional ideas in their lifetimes. Over half of participants from Australia, Japan and Thailand experienced delusional ideas in their lifetimes while less than half of participants from the Philippines had done so. An average of 31% of all participants reported they were currently experiencing delusional ideas with a third or less of participants from Japan, Thailand and the Philippines doing so. This contrasted starkly with the number of Australian participants (62%) currently experiencing delusional ideas.

Figure 4.3 *Percentage of participants reporting lifetime or current experience of delusional ideas*



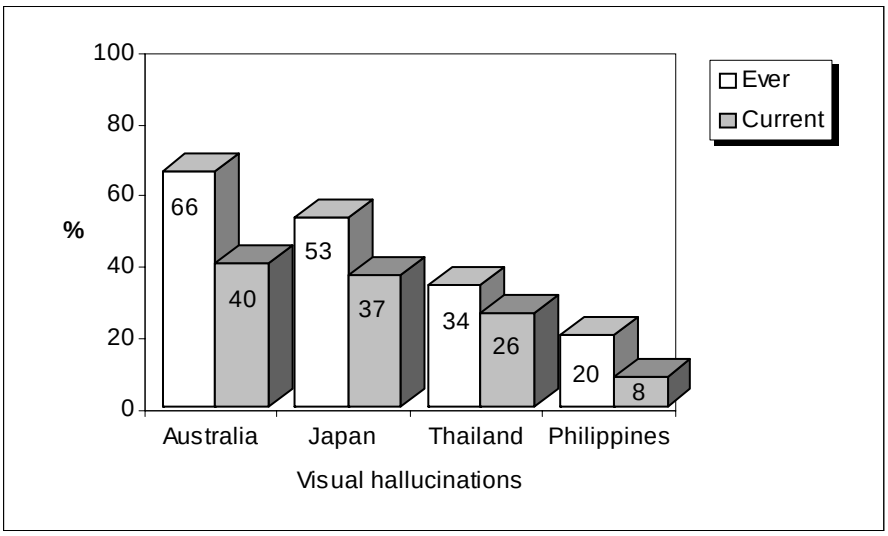
Thought broadcasting (Figure 4.4): An average of about 54% of all participants had experienced thought broadcasting in their lifetimes and similar levels of lifetime experience of thought broadcasting were found between Australian and Thai participants. Lower levels were reported among participants from Japan and the Philippines. The average percentage of all participants currently experiencing thought broadcasting was 34%. A greater proportion of Australian participants were currently experiencing thought broadcasting beliefs, while only a small proportion of Japanese and Philippine participants were still experiencing these beliefs.

Figure 4.4 *Percentage of participants reporting lifetime or current experience of thought broadcasting*



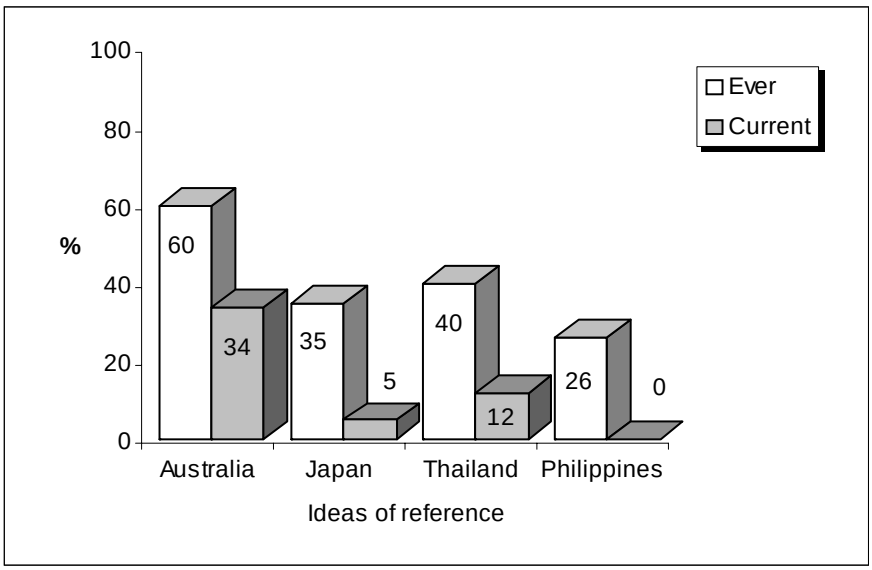
Visual hallucinations (Figure 4.5): An average of 43% of all participants from the four countries had experienced visual hallucinations in their lifetimes with over half of participants from Australia and Japan having done so. In contrast smaller numbers of Thai and Philippine participants experienced visual hallucinations in their lifetimes. A similar incidence of current experiences was identified for all participants (average of 28% across the four countries).

Figure 4.5 *Percentage of participants reporting lifetime or current experience of visual hallucinations.*



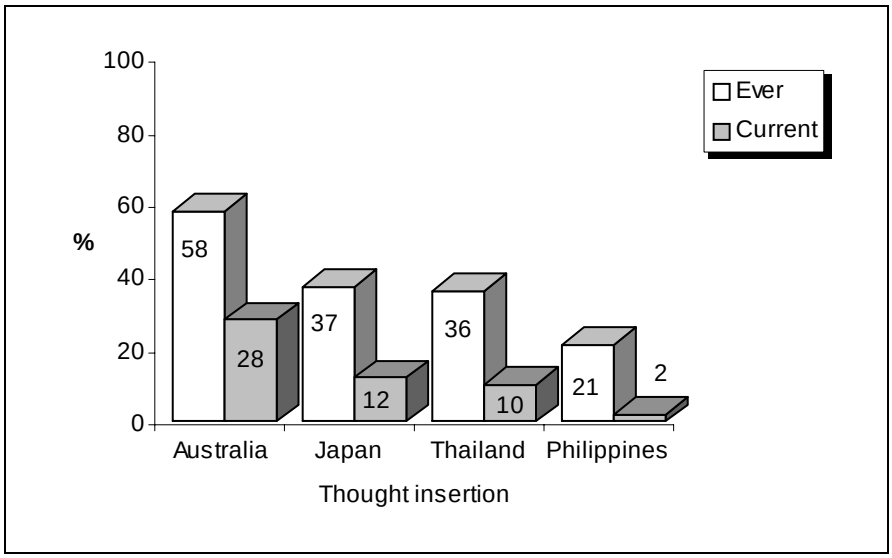
Ideas of reference (Figure 4.6): An average of 40% of participants from the four countries experienced ideas of reference in their lifetimes. It should be noted that Australian participants experienced a higher lifetime incidence of ideas of reference compared to the other countries and participants from the Philippines experienced the lowest. The average percentage of all participants currently experiencing ideas of reference was around 13%. No participants from the Philippines were currently experiencing ideas of reference.

Figure 4.6 *Percentage of participants reporting lifetime or current experience of ideas of reference*



Thought insertion (Figure 4.7): An average of 38% of participants from the four countries had ever experienced perceptions of thought insertions with Australian participants experiencing a higher lifetime incidence and participants from the Philippines experienced the lowest incidence. An average of approximately 13% of all participants from the four countries was currently experiencing perceptions of thought insertion with current incidence in all countries lower than lifetime incidence.

Figure 4.7 *Percentage of participants reporting lifetime or current experience of thought insertion.*



Clinician assessment

Disorganised speech (Figure 4.8): Very few participants across the four countries were assessed as currently exhibiting disorganised or incoherent speech. Participants from Australia recorded the highest proportion while participants from Thailand the lowest proportion at the time of interview.

Disorganised behaviour (Figure 4.9): Even fewer participants across three of the four countries were assessed as currently exhibiting disorganised or catatonic behaviour. Participants from Australia again recorded the highest proportion while participants from Philippines did not exhibit any disorganised behaviour at the time of interview.

Negative symptoms of schizophrenia (Figure 4.10): The three negative symptoms of schizophrenia include significant affective flattening, poverty of speech and avolition. Very few participants from Japan were assessed as having negative symptoms of schizophrenia in contrast to the proportion of Australian participants. Approximately one quarter of participants from the Philippines was assessed as having negative symptoms of schizophrenia while only a small number of participants from Thailand exhibited these symptoms.

Figure 4.8 *Percentage of participants assessed as currently experiencing disorganised speech.*

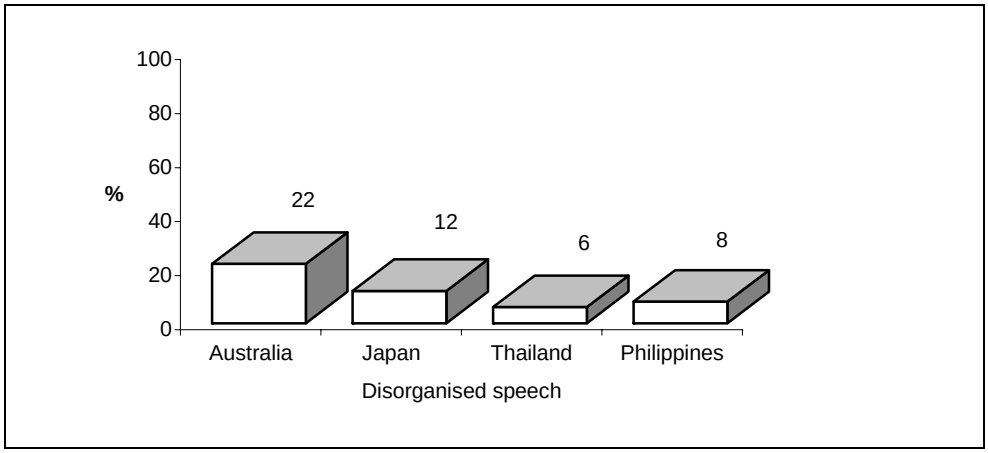


Figure 4.9 *Percentage of participants assessed as currently experiencing disorganised behaviour.*

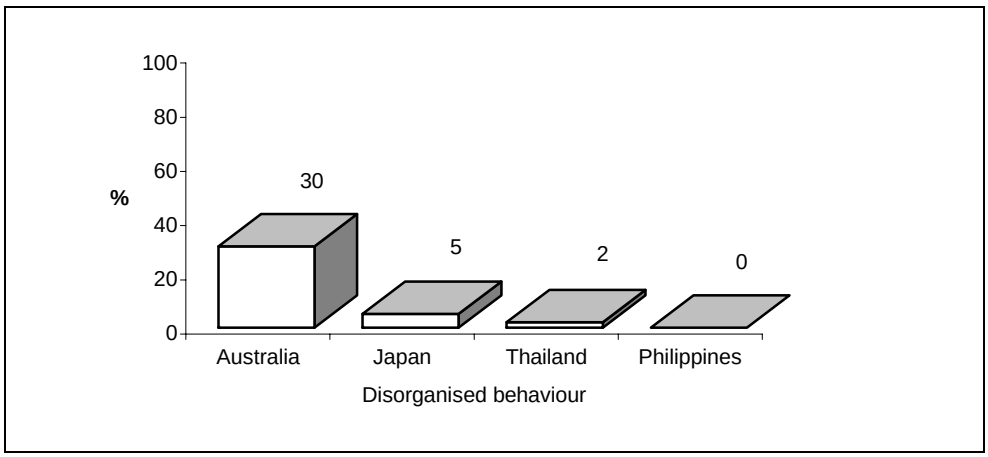
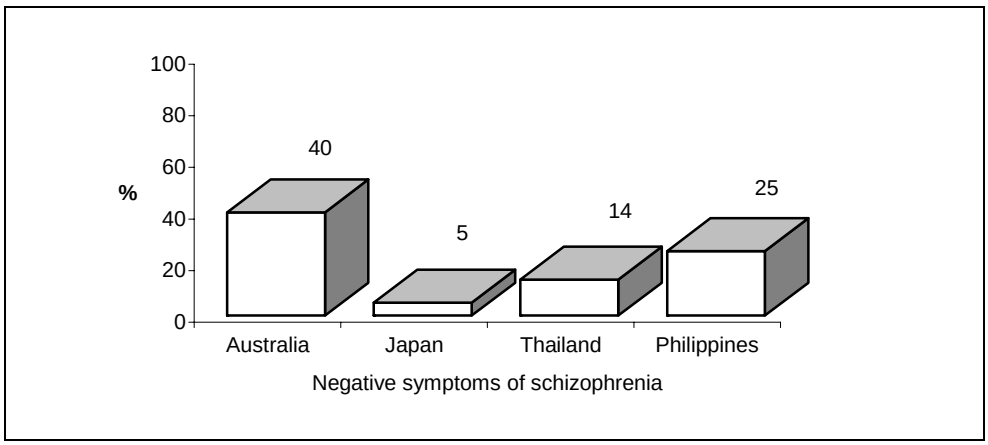


Figure 4.10 *Percentage of participants assessed as currently experiencing negative symptoms of schizophrenia.*



The pattern of diagnosis using the MINI Plus of a substance-induced psychotic disorder across the four countries reveals some distinct differences (see Table 4.30). Participants were classified into three groups; with groups 1 and 2 representing those with either a current or lifetime diagnosis of a substance-induced psychotic disorder and group 3 representing those with both a current and a lifetime diagnosis. Participants from Australia and Thailand received the highest number of both current and lifetime diagnoses of a substance-induced disorder. In contrast three participants from Japan and 13 participants from the Philippines did not receive a current or lifetime diagnosis of substance-induced psychotic disorder. However participants from the Philippines were more likely to be diagnosed as currently suffering a substance-induced psychotic disorder.

Table 4.30 *Diagnosis of current and lifetime incidence of substance-induced psychotic disorder by country (MINI Plus)*

Number of participants (%)	**Australia (N=50)**	**Japan (N=42)**	**Thailand (N=50)**	**Philippines (N=50)**
Not evident	-	3 (7)	-	13 (26)
Current (Group 1)	3 (6)	15 (36)	-	36 (72)
Lifetime (Group 2)	7 (14)	4 (10)	10 (20)	1 (2)
Both current and lifetime (Group 3)	40 (80)	20 (48)	40 (80)	-

The reasons for the differences in diagnoses between the countries are not readily apparent and these results should be interpreted with caution. Several factors may be influencing the results including the appropriateness of the instrument for different cultures, proper administration of the MINI Plus and initial recruitment strategies. It is also possible that the diagnostic instrument or the timing and duration of its delivery was not appropriate for participants from the Philippines where, as dictated by the treatment protocol, the interview and tests with participants were taken in the acute ward during the first three days of admission. Additionally, whilst every effort was taken to train the study interviewers and standardise delivery of the instrument, it is possible, and in the case of the Philippines likely, that some interviews were delivered by untrained staff, including medical interns. Some or all of these factors may account for the high proportion of participants in the Philippines not being diagnosed at all or having low rates of lifetime experience.

4.5.3 Symptoms of methamphetamine psychosis - Manchester Scale

The negative symptoms assessed by the Manchester Scale (Krawiecka et al., 1977) (flattened or incongruous affect, psychomotor retardation and poverty of speech or muteness) specifically relate to the patient's state at the time of interview. However, the Manchester Scale employs more complicated time periods when assessing the patient for positive psychotic symptoms. The Manchester Scale assessment of each symptom, however, is such that it may be considered relevant to the current episode of methamphetamine psychosis and during which they were interviewed. Both positive and negative symptoms are assessed.

Positive symptoms: The Manchester Scale (Krawiecka et al., 1977) assesses the severity of three of the positive symptoms of psychosis that were experienced by the participants during this episode of methamphetamine psychosis, not necessarily at the time of interview. The proportions of the patients at each level of severity of these symptoms are presented in Table 4.31.

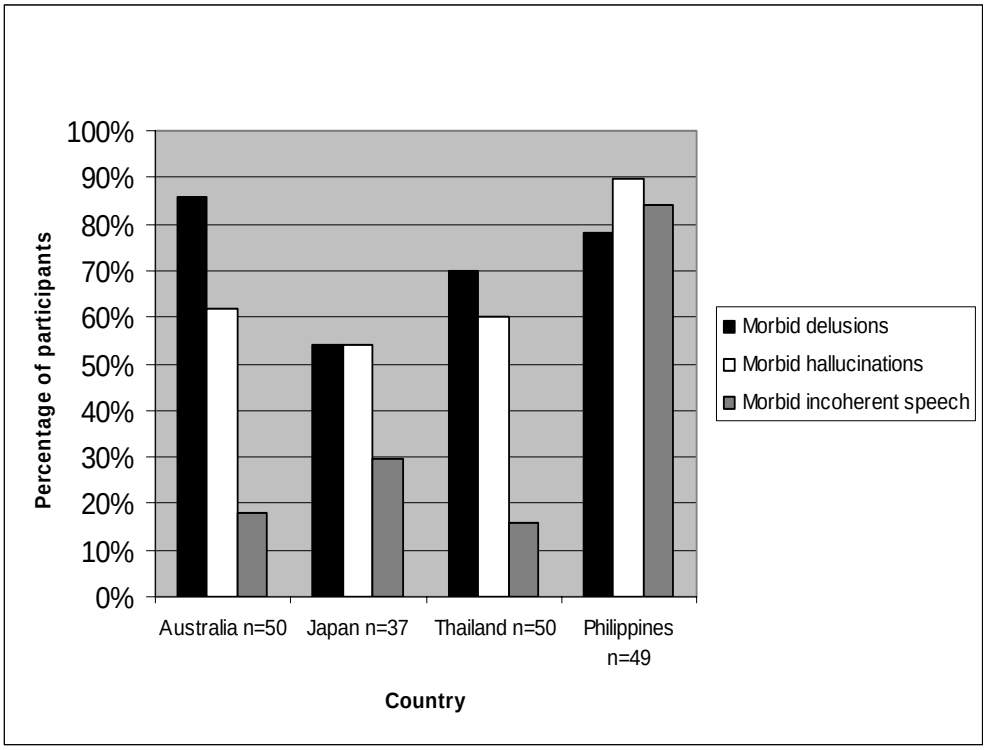
Table 4.31 Positive psychotic symptoms from the Manchester Scale.

Percentage of participants		**Australia (N=50)**	**Japan (N=37)**	**Thailand (N=50)**	**Philippines (N=49)**
Delusions	Absent	4	32.4	26	0
	Mild	10	13.5	4	22
	Moderate	18	24.3	20	28
	Marked	44	27	34	50
	Severe	24	2.7	16	0
Hallucinations	Absent	30	27	30	4
	Mild	8	18.9	10	6
	Moderate	22	16.2	20	32
	Marked	30	16.2	24	56
	Severe	10	21.6	16	2
Incoherent speech	Absent	48	59.5	68	4
	Mild	34	10.8	16	12
	Moderate	14	16.2	6	66
	Marked	4	10.8	8	18
	Severe	0	2.7	2	0

Delusional symptoms were most severe in Australian participants and absent or mostly absent in participants from the Philippines and Japan. Hallucinations were absent in approximately a third of participants from Australia, Japan and Thailand but much more marked in participants from the Philippines. Finally, incoherent speech was absent in half or more of Australian, Japanese and Thai participants but much more present in participants from the Philippines.

The Manchester Scale defines symptoms as clinically relevant or “morbid” if they reach severity levels of “moderate”, “marked” or “severe”. An analysis of the morbidity of participants in relation to the three positive symptoms of substance-induced psychosis was carried out. The results are presented graphically in Figure 4.11.

Figure 4.11 *Percentage of participants with morbid positive symptoms as defined by the Manchester Scale*



4.5.4 *Negative symptoms of methamphetamine psychosis - Manchester Scale*

The Manchester scale also provides severity scores for three negative symptoms of psychosis: flattened or incongruous affect, psychomotor retardation, and poverty of speech or muteness, each reflecting a reduction or diminution of normal functioning. These results are presented in Table 4.32. As previously indicated, the Manchester Scale assesses these symptoms in terms of their severity at the time of interview. It is important to note that the appearance of negative symptoms may be the result of side effects of medications administered during hospitalisation, particularly first generation antipsychotics and benzodiazepines.

Table 4.32 Negative psychotic symptoms from the Manchester Scale.

Percentage of participants		**Australia (N=50)**	**Japan (N=37)**	**Thailand (N=50)**	**Philippines (N=49)**
Poverty of speech	Absent	58	83.8	76	8
	Mild	24	10.8	12	58
	Moderate	14	2.7	4	32
	Marked	4	2.7	4	2
	Severe	0	0	4	0
Flattened affect	Absent	20	51.4	58	0
	Mild	36	24.3	26	38
	Moderate	30	16.2	12	56
	Marked	10	5.4	2	6
	Severe	4	2.7	2	0
Psychomotor retardation	Absent	56	78.4	50	2
	Mild	24	8.1	34	86
	Moderate	10	10.8	10	12
	Marked	8	2.7	6	0
	Severe	2	0	0	0

Poverty of speech was found more often among participants from the Philippines followed by Australians. Very few Japanese participants exhibited this particular symptom. Flattened affect was experienced by a larger proportion of participants from the Philippines in comparison to the other three countries. Finally, psychomotor retardation was absent in three quarters of Japanese participants but was more prevalent among participants from the Philippines.

4.5.5 Summary of methamphetamine-induced psychosis symptoms

The majority of participants were diagnosed as suffering from a substance-induced psychotic disorder using the MINI-Plus. A higher proportion of participants from the Philippines were classified as ‘current’ suffers while participants from Australia and Japan recorded the highest proportions of ‘current and lifetime’ diagnoses.

Overall participants from each country exhibited more positive than negative symptoms. The least experienced positive symptom for Australian, Japanese and Thai participants was incoherent speech and for participants from the Philippines it was delusions. The least experienced negative symptom for Australian, Japanese and Thai participants was poverty of speech and for participants from the Philippines it was flattened affect. Delusions were the most commonly experienced symptom (Manchester Scale) among all participants, and auditory hallucinations more common than visual hallucinations (MINI-Plus).

4.5.6 Other psychiatric morbidity

In addition to assessing psychotic symptoms, the Manchester Scale incorporates assessment for depression and anxiety, rating each of these on a five-point scale from absent to severe. Ratings are based on the patient's behaviour and demeanour, as well as the descriptions they provide relating to these conditions. However, a morbid rating of "moderate", "marked" or "severe" for depression or anxiety does not imply that the principal diagnosis for that patient will necessarily be an affective or anxiety-related disorder.

The proportions of the interviewed patients assessed to be at each level of severity of depression are presented in Table 4 33. Participants from Australia and Thailand had higher levels of depressive symptoms than participants from Japan or the Philippines. An analysis of morbidity confirms that a higher proportion of Australians (66%) were considered morbidly depressed followed by Thailand (42%), Japan (19%) and the Philippines (8%).

Table 4.33 Severity of depression symptoms from the Manchester Scale by country.

Percentage of participants		**Australia (N=50)**	**Japan (N=37)**	**Thailand (N=50)**	**Philippines (N=49)**
Depression	Absent	8.0	59.5	34.0	26.0
	Mild	26.0	21.6	24.0	66.0
	Moderate	34.0	13.5	26.0	8.0
	Marked	26.0	2.7	12.0	-
	Severe	6.0	2.7	4.0	-

The proportions of the interviewed patients assessed to be at each level of severity of anxiety are presented in Table 4.34. In contrast to depressive symptoms, Australian participants exhibited lower levels of anxiety related symptoms. Overall, participants from the Philippines exhibited higher levels of anxiety symptoms than other participants. An analysis of morbidity confirms that a higher proportion of participants from the Philippines (72%) were considered to have morbid levels of anxiety followed by Thailand (62%), Japan (58%) and the Australia (54%).

Table 4.34 Severity of anxiety symptoms from the Manchester Scale by country.

Percentage of participants		**Australia (N=50)**	**Japan (N=36)**	**Thailand (N=50)**	**Philippines (N=49)**
Anxiety	Absent	10.0	30.6	20.0	-
	Mild	36.0	11.1	18.0	28.0
	Moderate	20.0	36.1	40.0	66.0
	Marked	26.0	16.7	16.0	6.0
	Severe	8.0	5.6	6.0	-

4.5.7 Participant profiles

The information gathered from the participants has been combined to construct a profile of methamphetamine symptomatology. The results demonstrate distinct differences between participants from each country:

- Australia: Likely to be suffering a mild level of physical impairment and a severe level of psychological impairment. Exhibits a range of positive and negative psychotic symptoms at mild to moderate levels but more likely to present with flattened affect and almost certainly auditory hallucinations. Qualifies for both current and lifetime diagnoses of a substance-induced psychotic disorder. Highly likely to suffer from both major depression and morbid anxiety.
- Japan: Likely to be suffering a moderate level of physical impairment and a moderate to severe level of psychological impairment. Exhibits low levels of positive and negative psychotic symptoms apart from auditory and visual hallucinations. Somewhat likely to qualify for both current and lifetime diagnoses of a substance-induced psychotic disorder. Likely to suffer from morbid anxiety.

- Thailand: Likely to be suffering a mild level of physical impairment if present and a mild to moderate level of psychological impairment. Exhibits low levels of positive and negative psychotic symptoms apart from auditory and visual hallucinations, thought broadcasting and delusional ideas. Qualifies for both current and lifetime diagnoses of a substance-induced psychotic disorder but not likely to receive a current diagnosis independently to a lifetime diagnosis. Likely to suffer from morbid anxiety.
- Philippines: Unlikely to be suffering a physical impairment but does exhibit a mild level of psychological impairment. In general, exhibits a range of positive and negative psychotic symptoms at low levels with no evidence of thought broadcasting or ideas of reference. Is more likely to exhibit mild levels of flattened affect, incoherent speech and psychomotor retardation. Is likely to have a current diagnosis of a substance-induced psychotic disorder but not a lifetime diagnosis. Highly likely to suffer from morbid anxiety.

4.5.8 Summary

Differences emerged between the four countries with respect to levels of physical disability with Japanese participants suffering the highest degrees of physical disability and participants from the Philippines the lowest.

Similarities and differences were identified on a number of measures of psychological health between the four countries. Overall Australians exhibited the highest levels of psychological symptoms compared to the other countries and participants from the Philippines the lowest. Participants from each country exhibited more positive than negative symptoms. Negative symptoms probably reflect the participant's time in treatment, the intensity of antipsychotic use and may also correlate with depression secondary to dopamine depletion. Delusions were the most commonly experienced symptom among all participants and auditory hallucinations were more common than visual hallucinations.

A quarter of the participants from the Philippines failed to be diagnosed using the MINI Plus as having a substance-induced psychotic disorder. In contrast, these participants exhibited much higher levels of morbid hallucinations, incoherent speech, flattened affect and poverty of speech. The different psychological profile exhibited by the participants from the Philippines is difficult to reconcile. It is possible that the diagnostic instrument or the timing and duration of its delivery was not

appropriate for participants from the Philippines where, as dictated by the treatment protocol, the interview and tests with participants were taken in the acute ward during the first three days of admission. Additionally, whilst every effort was taken to train the study interviewers and standardise delivery of the instrument, it is possible, and in the case of the Philippines likely, that some interviews were delivered by untrained staff, including medical interns.

4.6 Sexual risk taking and injecting risk behaviour

4.6.1 Sexual risk taking behaviour in the past month

Participants were asked a number of questions concerning their sexual risk taking practices in the month prior to admission. All participants were given the option of refusing to answer questions within the section and a number from each country except Australia did so. Fourteen from the Philippines, eight from Thailand and six Japanese participants refused to answer.

Participants were then asked whether they had had sex in the month prior to admission and whether that act was between same-sex or opposite sex couples. Approximately half of the participants from Australia, Thailand and the Philippines did not have sex in the month prior to admission compared to a third of Japanese participants. Of those who did have sex in the previous month only two (one from Japan and one from Australia) reported having sex with a same-sex partner.

Given the small number of participants who agreed to answer all questions in this section coupled with the small number of participants who reported having sex in the month prior to admission, the results should be interpreted cautiously. Participants were asked whether they had multiple partners during the previous month and eight Australians (N=21, 38%), 12 Japanese (N=24, 50%) and one participant from the Philippines (N=7, 14%) said yes. No participants from Thailand reported having multiple partners in the last month.

Participants were asked about their condom use with partners in the previous month. The number of participants who reported that they never used condoms is presented in Table 4.35. The majority of participants who had sex with their regular partner in the month prior to interview did not use a condom. Condom use increased with casual or paid sex partners, however, half or more of participants from all countries who reported sex with a casual partner never used a condom. It is interesting to note that all four of the Thai participants who reported having sex with a paid sex worker claimed that they always used a condom, while all of the six Japanese participants reporting this behaviour either never or rarely used a condom.

Table 4.35 Condom use with sex partners in the previous month by country.

Number of participants (sample size)	**Australia**	**Japan**	**Thailand**	**Philippines**
Regular partner (never)	12 (14)	13 (20)	11 (14)	5 (5)
Casual partner (never)	6 (11)	6 (11)	3 (4)	1 (2)
Casual partner (always)	2 (11)	3 (11)	1 (4)	0 (2)
Paid sex partner (never)	1 (1)	3 (6)	0 (4)	-
Paid sex partner (rarely)	0 (1)	3 (6)	0 (4)	-
Paid sex partner (always)	0 (1)	0	4 (4)	-

4.6.2 Injecting risk taking behaviour in the past month

Participants were questioned about overall injecting drug use and not specifically methamphetamine. No participants from Thailand or the Philippines reported injecting drug use in the previous month and the following results are taken from Australian and Japanese participants only. When asked if they had injected any drug in the previous month 74% (N=37) of Australians and 91% (N=39) of Japanese said yes. A higher proportion of Australians reported at least weekly injecting (86.5%) than Japanese participants (62.2%) and twice as many Australians (N=6) reported daily injecting compared to Japanese (N=3) participants.

Several questions were asked to ascertain participants' level of sharing injecting equipment. The first of these questions asked whether the participants had used a needle after someone else and how many people had used the needle before them. As can be seen in Table 4.36, more Japanese participants reported using a needle after someone else than Australian participants. Similarly, compared to Australian data, Japanese participants reported that the number of people using a needle before them was proportionately greater. A third of Japanese participants (33.3%)

and just under a quarter of Australian participants (22%) reported passing on their needle to someone after they had used.

Table 4.36 Proportion of participants reporting sharing needles in the previous month by country.

Number of participants (%)	Australia (N = 37)	Japan (N=39)
Used after someone else	8 (22%)	16 (41%)
1 person used before	6 (75%)	9 (56%)
2 people used before	1 (13%)	4 (25%)
3 - 5 people used before	1 (13%)	4 (25%)

Participants were also asked about their needle cleaning behaviour in the month prior to admission. Less than a third of participants from Australia and Japan reported not reusing needles (see Table 4.37). For those who did re-use needles, approximately two-thirds of Australian participants reported cleaning their needles every time compared to less than half of the Japanese participants, Only one Australian and three Japanese participants reported never cleaning their needles before use.

Table 4.37 Needle cleaning behaviour among participants in the previous month by country.

Number of participants (%)	Australia (N = 37)	Japan (N=39)
Do not reuse needles	12 (32%)	9 (23%)
Every time	17 (68%)	14 (47%)
Often	3 (12%)	2 (7%)
Sometimes	-	11 (37%)
Rarely	4 (16%)	1 (3%)
Never	1 (4%)	3 (10%)

Excluding those who reported not reusing, participants were asked how often they bleached or boiled their injecting equipment before use in the past month. As can be seen in Table 4.38 Australian participants (N=25) were more likely to report cleaning their equipment by bleaching or boiling every time than Japanese participants (N=32), 44% and 6.2% respectively. Conversely, over three quarters of the Japanese participants reported that they never clean their injecting equipment compared to just over one third of Australian participants.

Table 4.38 Bleaching or boiling needle cleaning behaviour among participants reporting sharing needles in the previous month by country.

Number of participants (%)	**Australia (N=25)**	**Japan (N=32)***
Every time	11 (44%)	2 (6.2%)
Often	2 (8%)	-
Sometimes	-	3 (9.4%)
Rarely	3 (12%)	2 (6.2%)
Never	9 (36%)	25 (78%)

* two additional responses were recorded

4.6.3 Blood borne virus status

Results of testing for blood borne viruses were only available for Australian and Japanese participants. As can be seen in Table 4.39 no cases of HIV were identified and only low levels of other blood borne viruses were detected. A higher proportion of Japanese participants were Hepatitis C positive compared to Australian participants.

Table 4.39 Blood borne virus status by country.

Number of participants		**Positive**	**Negative**	**Unknown**
Australia (N=49)	HIV	0	25	24
	Hep B	0	12	37
	Hep C	6	24	19
Japan (N=43)	HIV	0	28	15
	Hep B	3	28	12
	Hep C	18	21	4

4.6.4 Participant profiles

The information gathered from the participants has been combined to construct a profile of risk taking behaviour. The results demonstrate distinct differences among each country:

- Australia: Sexually active, unlikely to use a condom with casual or paid partners. Injecting drugs at least weekly and less likely to share needles. When re-using needles highly likely to clean between use with bleach or by boiling. Low levels of Hepatitis C infection.

- Japan: Sexually active, unlikely to use a condom with casual or paid partners. Injecting at least weekly and likely to share needles. Unlikely to clean needles between use with bleach or by boiling. High rates of Hepatitis C infection.
- Thailand: Sexually active, more likely to use a condom with paid partners than casual partners. No injecting drug use.
- Philippines: Sexually active, extremely unlikely to use a condom with regular partner. No injecting drug use.

4.6.5 *Summary*

Small numbers of participants from each country reported sexual behaviour in the month prior to admission and the results must be treated with caution. Half or more of participants from all countries who reported sex with a casual partner never used a condom. It is also interesting to note that all four of the Thai participants who reported having sex with a paid sex worker claimed that they always used a condom, while all of the six Japanese participants reporting this behaviour either never or rarely used a condom. This result represents a concerning level of risk taking behaviour.

An analysis of injecting risk taking behaviour was restricted to Australian and Japanese participants as very few, if any, participants from Thailand or the Philippines reported injecting. Japanese participants appeared more likely to share needles than Australian participants and perhaps as a consequence had higher rates of Hepatitis C. It should be noted that there was a high number of Australians for whom results were 'unknown'.

4.7 Treatment contact

4.7.1 *Previous treatment contact*

Participants were asked a number of questions about their previous treatment contacts, in particular their past psychiatric, methamphetamine use, methamphetamine-induced psychosis and other drug use treatment. It must be noted however, that, apart from the Philippines, data were missing for some participants in every country including half of the Thai, five Japanese and two Australian participants

Very few participants from Japan (N=5), Thailand (N=2) or the Philippines (N=1) reported receiving past treatment for psychological problems excluding methamphetamine-induced psychosis. In stark contrast, 62.5% of Australians (N=30) had done so.

When asked about their treatment history with respect to methamphetamine-induced psychosis, a greater number of participants from each country reported having received past treatment (see Table 4.40) Participants from Thailand and the Philippines recorded the highest proportion with a past treatment history for methamphetamine psychosis. Participants from Thailand also recorded the highest number of past treatment episodes, at least twice as many as participants from each of the other countries.

Table 4.40 Methamphetamine psychosis treatment history by country.

		Australia (N=48)	**Japan (N=38)**	**Thailand (N=25)**	**Philippines (N=50)**
Ever treated for meth psychosis? N (%)		19 (40)	21 (55)	25 (100)	47 (94)
Times treated	Mean (st.dev)	0.63 (1.0)	1.66 (2.6)	2.48 (1.8)	1.26 (0.8)
	Median	0.0	1.0	2.0	1.0
	Range	0 - 5	0 - 11	1 - 7	0 - 5

NB: A number of missing responses were noted for all countries except the Philippines

Participants were asked about their past drug use treatment history for both methamphetamines and other drugs. Only 7 Australian, 4 Japanese, and 2 Thai participants reported a treatment history for other drugs and no participants from the Philippines reported a treatment history for other drugs. This finding is consistent with the low levels of regular other drug use reported by participants previously, apart from alcohol.

Questions regarding participants past treatment history for methamphetamine use produced a surprising result (see Table 4.41). Very few Australian participants reported treatment for methamphetamine use compared to the other countries. Similar proportions of Japanese, Thai and Philippines' participants reported past treatment for methamphetamine use and Thai participants recorded a greater number of past treatment episodes.

Table 4.41 Methamphetamine use treatment history by country.

		Australia (N=48)	Japan (N=38)	Thailand (N=50)	Philippines (N=50)
Ever treated for meth use (yes)? N (%)		3 (6)	20 (53)	26 (52)	23 (46)
Times treated	Mean (st.dev)	0.18 (0.9)	1.71 (3.0)	2.15 (2.0)	0.88 (1.4)
	Median	0.2	1.0	2.0	0.0
	Range	0 - 6	0 - 11	1 - 11	0 - 7

An analysis of the types of treatments received was undertaken and the results are presented in Table 4.42. The majority of participants who reported having received treatment for methamphetamine use did so in an inpatient program (e.g. inpatient detoxification) although Japanese participants also utilised out-patient programs.

Table 4.42 Type of treatment received for methamphetamine use by country.

Number of participants	Australia (N=3)	Japan (N=20)	Thailand (N=16)	Philippines (N=23)
Inpatient program	-	18	20	23
Residential rehab	-	2	2	4
Out-patient program	1	16	8	0
Other	2	9	-	-

4.7.2 Participant profiles

The information gathered from the participants has been combined to construct a profile of treatment history. The results demonstrate distinct differences between each country:

- Australia: Likely to have a previous treatment history for psychological/psychiatric problems including methamphetamine-induced psychosis. Unlikely to have a treatment history for methamphetamine or other drug use.
- Japan: Likely to have a previous treatment history for methamphetamine-induced psychosis. Likely to also have a treatment history for methamphetamine use with inpatient and out-patient programs typically reported.

- Thailand: Extremely likely to have a previous treatment history for methamphetamine-induced psychosis. Likely to also have a treatment history for methamphetamine use with inpatient programs more likely to be reported than out-patient programs.
- Philippines: Extremely likely to have a previous treatment history for methamphetamine-induced psychosis. Likely to also have a treatment history for methamphetamine use with inpatient programs typically reported.

4.7.3 Summary

Very few participants reported past treatment for psychological or psychiatric conditions excluding methamphetamine-induced psychosis except for Australians where over 60% of the sample had received some form of treatment. Approximately twice as many participants from the Philippines and Thailand reported past treatment specifically for methamphetamine-induced psychosis with Thai participants reporting the highest number of treatment episodes.

A distinct difference was identified in past treatment for methamphetamine use with less than 10% of Australians reporting past treatment compared to half of the participants from the other three countries. Treatment in Thailand and the Philippines consisted primarily of participation in an inpatient program compared to treatment in Japan where approximately equal numbers had attended inpatient and out-patient programs.

4.8 Characteristics of current hospital admission

4.8.1 Duration of hospital stay

The duration of the current hospital stay was recorded for each participant and is displayed for each country in Table 4.43. Participants from the Philippines recorded the fewest number of days of admission, with three participants recorded with zero days' admission. It is possible these participants were transferred to other wards or facilities but this was not recorded. Japanese participants were hospitalised for the longest duration, however, data were missing for 19 participants.

Table 4.43 Duration of current hospitalisation by country

		Australia (N = 50)	**Japan (N = 24)**	**Thailand (N = 50)**	**Philippines (N = 50)**
Duration of hospitalisation (days)	Mean	15.3	27.9	18.9	3.5
	St Dev	12.2	18.04	13.0	1.9
	Median	10.5	29	18	3
	Range	3 - 57	5 - 66	4 - 64	0 - 13

4.8.2 Medications prescribed during hospitalisation

Information was available from Australia and Thailand regarding medications prescribed during hospitalisation for the current episode of methamphetamine psychosis and this is summarised below. General information about the treatment of methamphetamine psychosis in the Philippines and Japan is also provided as a comparison.

Australia: Table 4 .44 presents a summary of the medications prescribed to Australian participants during the current admission for methamphetamine-induced psychosis. Psychosis and delusions were treated with haloperidol, olanzapine, zuclopenthixol, chlorpromazine, risperidone, and trifluoperazine. Extrapyramidal side effects were treated in around a third of patients with benztropine. Aggression was managed with benzodiazepines, usually clonazepam. Depression was rarely seen in the acute phase while insomnia was treated with temazepam. If greater sedation was required, then clonazepam or lorazepam was used.

Table 4.44 Medication prescribed to Australian participants during current hospitalisation

Percentage of participants prescribed medication	**Australia (N=50)**
haloperidol	50
olanzapine	44.8
zuclopenthixol	25.9
chlorpromazine	13.8
risperidone	10.3
trifluoperazine	10.3
benztropine	34
clonazepam	62.1

Thailand: Drug dependence treatment services in Thailand are provided by both government and private agencies. The former constitutes the largest network, which is distributed widely in all provinces. The Department of Medical Services (DMS), Ministry of Public Health, regulates all drug treatment services under a license system, six of which are specialized regional drug dependence treatment hospitals operated directly under the Ministry of Public Health administration.

The Thailand centre provided the following overview of the treatment of methamphetamine-induced psychosis during the present admission in that country.

Treatment in most cases involved a cocktail of medications in which several classes of medications were used. All participants (N=50) were given conventional antipsychotics (e.g., haloperidol, trifluoperazine) or newer antipsychotics (e.g., risperidone). Many participants were given parenteral antipsychotic injections e.g., haloperidol, zuclopenthixol acuphase. The most common antipsychotic used was haloperidol. Other medications included antiparkinson drugs (91.9%), antidepressants (11.0%), antianxiety agents (15.3%), and mood stabilisers (3.4%). Electroconvulsive therapy was used on 7.7% patients.

Philippines: Specific data on medications prescribed during hospitalisation were not available from the Philippines for the participants in the current study. The Philippine centre provided the following overview of the treatment of methamphetamine-induced psychosis in that country where a standard protocol was followed.

Drug dependence treatment services in the Philippines are provided by both government and private agencies. Methamphetamine intoxication treatment is generally supportive. Excessive stimulation is avoided by secluding the patient in a quiet, calm environment. Ammonium chloride is given orally to increase urinary excretion of methamphetamine. In hospitals were toxicologists are present, activated charcoal is given for the first 48 hours. Urine is acidified with oral or intravenous ascorbic acid every 8 hours until the urine reaches ph6 and the methamphetamine-screening result is negative. Behavioural problems are treated with either oral or parenteral benzodiazepines. Psychosis is managed with antipsychotics, usually haloperidol. Patients are transferred to another ward after 3 days of detoxification if

psychotic symptoms do not subside**.** Psychological support is provided through individual, family and group therapy as well as counselling sessions through peers.

Japan: Specific data on medications prescribed during hospitalisation were not available from Japan for the participants in the current study. The Japanese centre provided the following overview of the treatment of methamphetamine-induced psychosis during the present admission in that country.

Patients with acute methamphetamine psychosis are hospitalised and treated with neuroleptic agents such as haloperidol and levomepromazine (a phenothiazine neuroleptic drug). When patients exhibit disturbances in levels of consciousness or severe cognitive disorders, involuntary admission is recommended. After the symptoms of acute methamphetamine psychosis disappear, which is usually within a month, dependant users may experience withdrawal symptoms. These include agitation, irritability and excitability and are possibly related to a craving for the substance. In this situation, patients often insist on being discharged or resist treatment in hospital settings. However, they are also vulnerable to re-use methamphetamine and recurrence of the psychosis and it is therefore recommended that they are hospitalised for further treatment, including pharmacotherapy, brief psychotherapy and behavioural therapy or drug education within one to two months of the disappearance of psychotic symptoms.

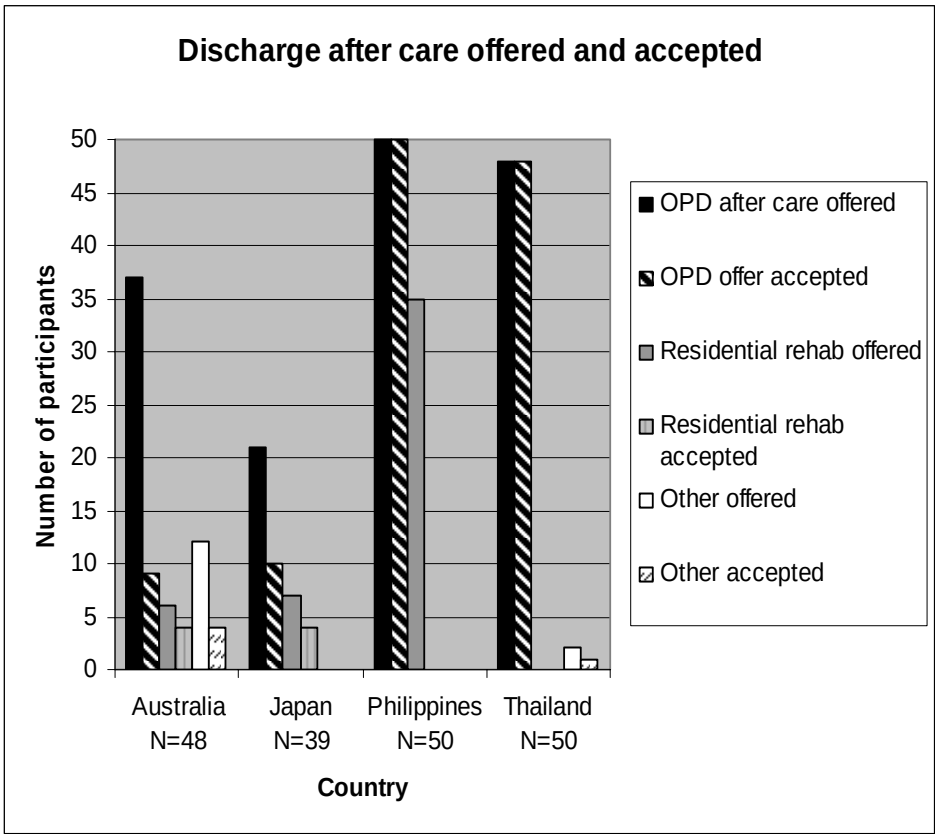
4.8.3 Medication prescribed on discharge from hospital

Information about discharge medications was inconsistently recorded and should be interpreted with caution. Data for Japan were difficult to interpret and are not presented here. In Australia, the most commonly prescribed antipsychotic on discharge was olanzapine (N=47, 57.4%) while in Thailand and the Philippines it was haloperidol (Thailand, N=50, 60%, Philippines, N=50, 100%).This differed from the most used antipsychotic found on admission in Thailand and the Philippines which was trifluoperazine and chlorpromazine respectively (see Table 4.45). Nine Thai participants (18%) were prescribed trifluoperazine on discharge. This may reflect differences in the prescribing preferences and availability of medicines within medical institutions compared to private/community practice.

4.8.4 *Post -discharge after care arrangements*

The type of post discharge after care offered to participants was recorded as out-patient department (OPD) after care, residential rehabilitation (rehab) or other. Figure 4.12 presents the type of after discharge care offered and the number of participants accepting the offer. The most frequently offered type of after discharge care in all four countries was out-patient care but acceptance of this service was reported to be much higher in the Philippines and Thailand (up to 100%) than in Australia or Japan (less than 50%). Types of after discharge care recorded as "other" included self-treatment (two Thai participants), inpatient transfer (two Australian) and referral to a general practitioner (eight Australian). One Australian and four Japanese participants were arrested after discharge and not included here. Interestingly, all eight of the Australian participants offered referral to a general practitioner refused the offer.

Figure 4.12 *Discharge after care offered and accepted*



4.8.5 *Participant profiles*

The information gathered from the participants and study centres has been combined to construct a profile of the current hospital admission for methamphetamine-induced psychosis. The reader is reminded to view these summaries with caution. The results demonstrate both similarities and differences between each country:

- Australia: Likely to remain in hospital for approximately two weeks. Likely to be treated with the antipsychotic haloperidol or olanzapine as an inpatient and discharged on olanzapine. May prefer out-patient care after discharge.
- Japan: Likely to remain in hospital for approximately one month. Likely to be treated with the antipsychotic haloperidol or levomepromazine as an inpatient. May prefer out-patient care after discharge.
- Thailand: Likely to remain in hospital for two to three weeks. Likely to be treated with the antipsychotic haloperidol or trifluoperazine as an inpatient and discharged on haloperidol. Very likely to prefer out-patient care after discharge.
- Philippines: Likely to remain in hospital for approximately 4 days. Likely to be treated with the antipsychotic haloperidol as an inpatient and discharged on haloperidol. Extremely likely to prefer out-patient care after discharge

4.8.6 *Summary*

Differences existed between the four countries in the treatment of methamphetamine-induced psychosis, including duration of hospitalisation, preferred type of discharge follow-up and when and what type of medications are used. In the Philippines treatment follows a defined protocol whereas treatment in the other countries tends to be symptomatic and not standardised. Information about discharge medications was inconsistently recorded and should be interpreted with caution. Data were not available for Japan. However, in Australia, the most commonly prescribed antipsychotic was olanzapine while in the other Thailand and the Philippines it was haloperidol. This differed from the most used antipsychotic found on admission in Thailand and the Philippines. This may reflect differences in the prescribing preferences and availability of medicines within medical institutions compared to private/community practice.

Differences also exist between the four countries with respect to treatment of methamphetamine-induced psychosis either during the current admission (information available for Australia and Thailand) or as a more generalised approach (general information available for Japan and the Philippines). In the Philippines, treatment of methamphetamine psychosis during hospital admission follows a standard protocol. The different prescribing preferences probably reflect the range of medicines available in each country and/or treating centre along with local prescribing preferences.

Participants from the Philippines recorded the shortest duration of hospitalisation for the current episode of methamphetamine psychosis (mean stay was three and a half days) whilst those from Japan, who recorded the longest duration, were hospitalised for a mean of almost 28 days.

The most frequently offered type of after discharge care in all four countries was out-patient care but acceptance of this service was reported to be much higher in the Philippines and Thailand (up to 100%) than in Australia or Japan (less than 50%).

5.1 Conclusions

A large amount of information has been gathered on a sample of participants admitted to hospitals in four different countries for an initial diagnosis of methamphetamine-induced psychosis. Differences and similarities were identified between the participants suggesting that the profile of methamphetamine-induced psychosis and the range of factors leading up to an episode can vary between both individuals and countries.

It is beyond the scope of this investigation to provide a predictive model of methamphetamine psychosis or even to establish any causal links between a range of factors and the incidence and severity of an episode. The results should be seen as an indicator of areas of importance for future researchers and the report provides an impetus for individual studies into a range of factors probably associated with methamphetamine-induced psychosis within each country.

5.2 Recommendations

Several recommendations have come from this research:

- Recognition of this disorder and its psychological and behavioural consequences should be enhanced in treating institutions, in services that sufferers may access (including drug and alcohol treatment services), and among law enforcement officials who may encounter affected individuals.
- Greater collaboration should be established between mental health services and drug and alcohol treatment services for dealing with methamphetamine-induced psychosis.
- Inpatient treatment for methamphetamine-induced psychosis should include interventions targeted at individuals' substance (particularly methamphetamine) abuse and/or dependence. Patients' poly-drug use should also be addressed.
- Inpatient treatment should include interventions targeted at individuals' blood borne virus risk behaviour, to reduce the incidence of transmission of blood borne viruses such as HIV and hepatitis C.
- A randomised controlled trial of inpatient treatment for the acute manifestations of methamphetamine-induced psychosis should be conducted to determine the most effective form of intervention for the psychotic symptoms of this disorder.

- A randomised controlled trial of assertive out-patient follow-up should be conducted to determine the most effective ways of providing psychiatric and drug and alcohol related support to patients when they are discharged from hospital, to maintain improvements in discharged patients' psychological health, and to reduce rates of relapse.
- Clinicians treating patients with methamphetamine-induced psychosis should be aware that patients might be suffering from an affective or anxiety disorder and may benefit from treatment of these conditions.
- Prevention initiatives should incorporate the findings of the present research in strategies to increase community awareness of the disorder, including presenting the "risk factors" (such as injecting and using large amounts of methamphetamine regularly) that might increase the likelihood of developing methamphetamine psychosis.

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Appendix 1. Participant Interview Schedule

PARTICIPANT INTERVIEW SCHEDULE

PARTICIPATING CENTRE: **Australia** ☐ **Japan** ☐ **Philippines** ☐ **Thailand** ☐

PARTICIPANT NUMBER: ☐☐☐

INTERVIEWER INITIALS: ☐☐☐

DATE OF PATIENT ADMISSION: ☐☐ ☐☐ ☐☐☐☐ (DD MM YYYY)

DATE OF INTERVIEW: ☐☐ ☐☐ ☐☐☐☐ (DD MM YYYY)

LOCATION OF INTERVIEW: _____

INTERVIEWER NOTE: *Ensure that instrument cue cards and appendix III of the protocol (Manchester scale scoring) are ready for use during the interview.*
Please read Appendix IV of the protocol before administering the MINI Plus component of the interview.

ENROLMENT CHECKLIST ***(NB. If any shaded boxes are checked, subject is ineligible for study)***

	YES	NO
Able and willing to understand and complete study procedures …….……	☐	■
Informed Consent Form completed for this interview ……..	☐	■
Informed Consent Form completed for possible follow up interview ……..	☐	☐
Aged between 18 and 59 years ……..	☐	■
Interview date 3-7 days post admission date (see above) …….……...……..	☐	■
Methamphetamine use within week prior to admission date (see above)……..	☐	■
Evidence of drug induced psychotic disorder ……	☐	■
Prior history of non drug induced psychotic disorder ……	■	☐
Risk of violence to clinical staff ……	■	☐
Severe risk of self-harm ……	■	☐
Impaired sensorium……	■	☐

PREAMBLE: *Thank you for agreeing to take part in this WHO organised project on health problems of ATS use. As you know the study is being conducted in four countries. This interview will last about 45 minutes. I'll be asking you questions about your experience and opinions about ATS and about other drugs that you may have used. Please remember that this is an anonymous and totally confidential interview.*

FRAMING THE INTERVIEW: *Before we begin the interview, let me mention that we will be looking at different time periods - some things I ask you will concern:*

- *your whole life,*
- *the past 12 months / year;*
- *the past 90 days / 3 months;*
- *the past 30 days / 1 month.*

Source of referral: Self [1] Family [2] Friend [3] Welfare [4] Police [5]

Other [6] (specify) …….

Persons accompanying patient at admission: No one [1] Family [2] Friend [3]

Welfare [4] Police [5] Other [6] (specify) ……..…….

CLINICAL SCREENING DATA

Summarise results of toxicology, health screening **from samples taken during current admission** below

Drug toxicology	**(- or +)**
Opiates……	☐
Cannabis ……	☐
Benzodiazepines ……	☐
Methamphetamine……..	☐
Other amphetamine…….	☐
Other: specify_____	☐
Not Done……	☐

Blood Borne Infections	**(- or +)**
HIV antibody…….	☐
Hep B antibody ……	☐
Hep B Antigen ……..	☐
Hep C antibody ……	☐
Not Done……...	☐

Liver function	**u/L**	**Ref. Range**
GGT ……..……	☐	(0-60)
AST ……	☐	(0-45)
ALT ……	☐	(0-55)
Not Done……	☐	

Method of determining methamphetamine use in the week prior to admission.

Self Report (- or +)

Relative report (- or +)

Other (- or +) Specify: …….

Clinical evidence of methamphetamine intoxication at time of admission (- or +)

Results of examination recorded in case notes AT ADMISSION

BP _____/_____ mmHg Pulse _____ b/min Weight _____ Kg.

Past Psychiatric History (LIST):

Family History of psychotic illness (- or +)

Family History of Drug and/or alcohol dependence (- or +)

Past Medical History (LIST):

Current Medications prior to admission:

DRUG	DOSE	FREQUENCY

Tattoos: (- or +)

Movement Disorders:

Formication [1] (- or +) Chewing [2] (- or +) Stereopathy [3] (- or +)

Restless legs [4] (- or +) Other (Specify) [5] (- or +)

SECTION 1: SOCIO-DEMOGRAPHIC INFORMATION

Before we begin, I'd like to record some information about you.

1.1 What is your age? _____ years

1.2 Gender: Male [1] Female [2]

1.3 What country were you born in?

1.4 Ethnic origin:

1.5 What is your marital status?

Married [1] Cohabiting [2] Single [3] Divorced [4] Widowed [5]

Separated [6] Other (specify) …….

1.6 Do you have any children? No [1] Yes [2] If yes, how many? ……

1.7. How many of <u>these</u> children live with you?.....
1.7.1 How many of your brother(s)/sister(s) live with you?.....

1.8. Which of these best describes your <u>present</u> living arrangements (ie. where you live).

Parents in house or flat [1]

Friends/group in house or flat [2]

Partner/children in a house or flat [3]

Boarding in college residence [4]

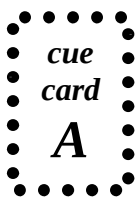
Boarding (external) [5]

Live alone in a house or flat [6]

Refuge/shelter [7]

Other (specify) .....

1.9.1 In general, how satisfied are you with your current accommodation arrangements?



scale from 1-7, where 1 = very dissatisfied, 4 = satisfied and 7 = very satisfied)

❶ - ❷ - ❸ - ❹ - ❺ - ❻ - ❼

VERY DISSATISFIED VERY SATISFIED

1.10 How would you describe your occupational status?

Full-time employed [1] Part-time employed [2] Unemployed [3]

Part-time student [4] Full-time student [5] **If 4 OR 5 skip to 1.12.**

Other [6] (specify) …….

1.10.1 If working, what type of work do you do?

Manager/Administrator [6] Professional [5] Tradesperson [4] Clerk [3]

Sales person [2]….Machine operator/driver [1] Labourer [0]

1.11. For how much of the last six months have you been unemployed? (not students or homemakers)

cue card B

All of the time	Most of the time	About half of the time	Some of the time	None of the time
4	3	2	1	0

1.12 What is the <u>highest</u> level of formal education that you have completed? (include courses that provide qualifications such as trades, nursing, private colleges etc)

Some primary/elementary school [1]

Completed primary/elementary school [2]

Completed junior high school [3]

Some secondary/high school [4]

Completed secondary/high school [5]

Some trade/technical [6]

Completed trade/technical course [7]

Some university [8]

Completed university course [9]

Other [10] (specify) …….....

SECTION 2: ATS USE HISTORY

2.1 How old were you when you first used an amphetamine? ☐ *Years*

2.2. Can you tell me all of the different types of ATS that you have used?

Methamphetamine/Amhpetamine	No	0	Yes	1	Years of use _____
Ephedrine	No	0	Yes	1	Years of use _____
Ecstasy	No	0	Yes	1	Years of use _____
Caffeine tablets	No	0	Yes	1	Years of use _____
Methylphenidate	No	0	Yes	1	Years of use _____
Dexamphetamine	No	0	Yes	1	Years of use _____
Other (List)	No	0	Yes	1	Years of use _____

2.3. What is the MOST amount of ATS you have **EVER** used in a 24 -hour period?

☐ *Caps, Grams, Tablets, or money spent*

2.4. In the past **12 months**, how often have you used ATS?

cue card C

Never	Once or twice only	3-5 times	Once every 2 months	Monthly	2-3 times a month	Once a week	2-3 times a week	4-6 times a week	Every day
0	1	2	3	4	5	6	7	8	9

2.5 Have you **ever** taken ATS ORALLY?

No 0 Yes 1

2.5.1 If yes, how often did you take ATS this/these ways in the past 90 days?:

cue card C

Never	Once or twice only	3-5 times	Once every 2 months	Monthly	2-3 times a month	Once a week	2-3 times a week	4-6 times a week	Every day
0	1	2	3	4	5	6	7	8	9

2.7 Have you **ever** taken ATS by SNIFFING into your nose (SNORTING)?

No 0 Yes 1

2.7.1 If yes, how often did you take ATS this/these ways in the past 90 days?:

cue card C

Never	Once or twice only	3-5 times	Once every 2 months	Monthly	2-3 times a month	Once a week	2-3 times a week	4-6 times a week	Every day
0	1	2	3	4	5	6		8	9

2.8 Have you **ever** taken ATS by SMOKING/INHALING (e.g. by chasing it over foil or in a cigarette)?

No 0 Yes 1

2.8.1 If yes, how often did you take ATS this/these ways in the past 90 days?

cue card C

Never	Once or twice only	3-5 times	Once every 2 months	Monthly	2-3 times a month	Once a week	2-3 times a week	4-6 times a week	Every day
0	1	2	3	4	5	6	7	8	9

2.9 Have you **ever** taken ATS by INJECTING?

No 0 Yes 1

2.9.1 If yes, how often did you take ATS this/these ways in the past 90 days?:

cue card C

Never	Once or twice only	3-5 times	Once every 2 months	Monthly	2-3 times a month	Once a week	2-3 times a week	4-6 times a week	Every day
0	1	2	3	4	5	6	7	8	9

2.10 Interviewer: record all routes used:

Swallow 1 Snort/sniff 2 Inhale/ Chase 3 Inject 4

2.11 Which of the following would you say has been the *pattern* of your ATS use in the past 12 months?

Used on BOTH WEEKDAYS and at WEEKENDS 3

ONLY used on WEEKDAYS 2

ONLY used at the WEEKEND 1
(Between Friday night and Monday morning)

No consistent pattern of use 4

2.12 In the last 12 months, how much ATS would you say you have used on a typical day at the *WEEKEND*?

Caps, Grams, Tablets, or money spent

2.13 In the last 12 months, how much ATS have you used on a typical day during the *WEEK*?

Caps, Grams, Tablets, or money spent

2.14 In the past 12 months, what is the MOST ATS you have used in one 24-hour period?

Caps, Grams, Tablets, or money spent

2.15 Description of last consumption of ATS which resulted in this admission:

2.15.1 How many days in the week before admission did you use ATS? …… Days

2.15.2 Quantity ATS used each day? …… *Caps, Grams, Tablets, or money spent*

2.15.3 When did you last use ATS before admission? ……. Hours/Days [Circle]

2.15.4 How many hours per day did you sleep before ceasing ATS use? …….

2.15.5 What other illicit drugs did you use in the week before admission?

[list] ……..……. ……..…….

……..……. ……..…….

……..……. ……..…….

2.16 These next questions are about problems you may have experienced when using ATS:

cue card D

IN THE PAST **12 MONTHS** How often have you:	Never 0	Rarely 1	Some times 2	Often 3	Always 4
a. Felt sick or unwell as a result of using ATS?					
b. Wished that the effects of ATS would reduce or stop?					
c. Felt anxious or nervous as a result of using ATS?					
d. Had an accident and hurt yourself when using ATS?					
e. Driven a vehicle (car/bike, etc.) when you were using ATS?					
f. Missed work/school as a consequence of using ATS?					
g. Broken the law to get money or property to obtain ATS?					
h. Broken the law when you were intoxicated on ATS?					
i. Broken the law when you were intoxicated on alcohol?					
j. Had an unusual feeling under your skin (eg. bugs crawling) as a result of using ATS?					
k. Been disturbed by unusual smells (that others couldn't smell) as a result of using ATS?					
l. Taken ATS when alone at home?					

2.17 These questions are also about feelings and experiences you may have when using ATS:

IN THE PAST 12 MONTHS: *cue card C*	No/never (0)	Yes/once of twice only (1)	3-5 times (2)	Once every 2 months (3)	Monthly (4)	2-3 times a month (5)	Once a week (6)	2-3 times a week (7)	4-6 times a week (8)	About every day (9)
1. How often would you say that you have had a persistent or strong desire to take ATS?										
2. Have you had any difficulty in cutting down, controlling how often OR how much ATS you used?										
3. Have you found that you needed to use more ATS to get the desired effect OR the same amount had less of an effect?										
4. Have you used ATS in a risky or dangerous situation? (For example riding a motor bike or driving a car when under the effects of ATS.)										
5. How often have you felt sick or unwell when the effects of ATS have worn off?										
6. Have you had problems with the law resulting from ATS use?										
7. How often have you used ATS in larger amounts OR for a longer period of time THAN YOU INTENDED?										
8. How often have you taken large amounts of time obtaining OR using OR recovering from the effects of ATS?										
9. Have you found that using ATS has led you to neglect things OR cause problems at socially or home, or work?										
10. you continued to use ATS despite having problems with it in your social life or with relationships?										
11. Have you reduced or given up work, recreational or social activities as a result of your ATS use?										
12. Have you continued to use ATS despite having physical or psychological problems with it?										

INJECTING DRUG USE

2.18 How many times have you injected any drugs in the LAST MONTH?

cue card ***E***

0	1	2	3	4	5
Hasn't injected	Once a week or less	More than once a week (but less than once a day)	Once a day	2-3 times a day	More than 3 times a day

If subject has NOT INJECTED IN THE LAST MONTH, score zero for drug use and ***GO TO NEXT PAGE - SECTION 3.***

2.19 How many TIMES IN THE LAST MONTH have you used a needle after someone else had already used it?

cue card ***F***

0	1	2	3	4	5
No times	One time	Two times	3-5 times	6-10 times	More than 10 times

2.20 How many different people have used a needle before you in the LAST MONTH?

cue card ***F***

0	1	2	3	4	5
None	One person	Two people	3-5 people	6-10 people	More than 10 people

2.21 How many times in the LAST MONTH has someone used a needle after you have used it?

cue card ***F***

0	1	2	3	4	5
No times	One time	Two times	3-5 times	6-10 times	More than 10 times

2.22 How often in the LAST MONTH have you cleaned needles before re-using them?

cue card ***D***

0	1	2	3	4	5
Does not re-use	Always	Often	Sometimes	Rarely	Never

2.23 Before using needles again, how often in the LAST MONTH did you use bleach or boiled to clean them?

cue card ***D***

0	1	2	3	4	5
Does not re-use	Always	Often	Sometimes	Rarely	Never

SECTION 3: ATS USE CONTEXT

3.1 What is the **most** amount of money you have **ever** spent on ATS on one purchase? [ ] (local currency) price

3.2.1. Have there EVER been any occasions when you have NOT been able to obtain ATS when you wanted to?

No [0] ***IF "NO", SKIP TO NEXT PAGE - SECTION 5.***

Yes [1]

3.2.2. If Yes: Did you use anything instead? No [0]

Yes [1] What did you use instead?

3.2.3. Name(s) of main other substance(s) used (include alcohol)

1. . . . . **2**. . . . . .

3. . . . . **4**. . . . . .

(NB: NO SECTION 4)

SECTION 5: OTHER DRUG USE

In this section, I'm going to ask you some questions about other drugs that you may have used.

cue card ***C***

FREQUENCY OF USE IN THE PAST 12 MONTHS

Never	Once or twice only	3-5 times	Once every 2 months	Monthly	2-3 times a month	Once a week	2-3 times a week	4-6 times a week	Every day
0	1	2	3	4	5	6	7	8	9

cue card ***C***

FREQUENCY OF USE IN THE PAST 90 DAYS

Never	Once or twice only	3-5 times	Once every 2 months	Monthly	2-3 times a month	Once a week	2-3 times a week	4-6 times a week	Every day
0	1	2	3	4	5	6	7	8	9

ROUTES OF ADMINISTRATION

Oral = 0 Snort/sniff = 1 Inhale/chase = 2 Inject = 3

DRUG TYPE	Age 1st used	Days used past 12 months	Days used past 90 days	Route(s) of administration last 90 days
1. Alcohol				
2. Solvents (glues/gases/fuels)				
3. Cannabis				
4. LSD/Mushrooms				
5. Heroin				
6. other illicit opiate Specify: _____				
7. Ketamine				
8. Main Illicit benzo. Specify:_____				
9. Cocaine powder				
10. Crack/rock cocaine				

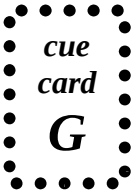
SECTION 6: SOCIAL CONTEXT AND SITUATION

6.1.1. Are you currently in a personal relationship? Yes [1] No [0] *IF "NO", SKIP TO 6.2*

6.1.2. Does this person use ATS? Yes [1] No [0]

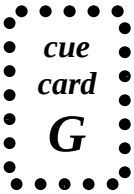
6.2. Does any member of your family use ATS? Yes [1] No [0]

6.3. How many of the people you socially spend time with use **ATS**?



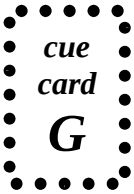
All of them	More than half	About half of them	Less than half	None
4	3	2	1	0

6.3. How many of the people you socially spend time with use **ESTASY**?



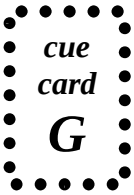
All of them	More than half	About half of them	Less than half	None
4	3	2	1	0

6.3. How many of the people you socially spend time with use **CANNABIS**?



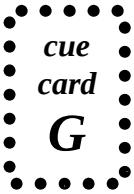
All of them	More than half	About half of them	Less than half	None
4	3	2	1	0

6.3. How many of the people you socially spend time with use **COCAINE**?



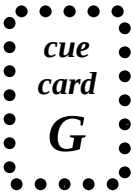
All of them	More than half	About half of them	Less than half	None
4	3	2	1	0

6.3. How many of the people you socially spend time with use **HEROIN**?



All of them	More than half	About half of them	Less than half	None
4	3	2	1	0

6.3. How many of the people you socially spend time with use **OPIUM**?

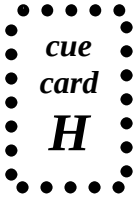


All of them	More than half	About half of them	Less than half	None
4	3	2	1	0

SECTION 7: LEGAL ISSUES

In this section I am interested in any contact you may have had with the police and legal authorities. I don't want to know any specific details. Remember that any information you give me is completely confidential.

7.1. How many times have you been apprehended or arrested by the police



Never	Once only	2-5 times	6-10 times	11-20 times	21+ times
0	1	2	3	4	5

7.1.1 Were any of these arrests or apprehensions drug related?

No [0] Yes [1]

7.2. How many times have you been convicted for an offence? ……..

7.3. Have you ever been in prison/youth detention centre

No [0] go to Section 8

Yes [1] If "Yes", how many times? _____

7.3.1. If "Yes", age at first prison/youth detention centre sentence _____

7.3.2. If "Yes", total time spent in prison/youth detention centre (months) _____

SECTION 8: SEXUAL BEHAVIOUR

These questions are about your recent sexual behaviour. If you think that you can't answer these questions truthfully then feel free to say that you would prefer not to answer. However, I emphasise again that any information that you give me is completely confidential.

Refused to answer this section: Yes [1] No [0]

8.1 . Who have you had sex with in the **last month**?

No one [1] *IF "NO ONE", SKIP TO SECTION 9*

Only with people of the opposite sex to me [2]

With both men and women [3]

Only with people of the same sex as me [4]

8.2. How many different people (including clients) have you had sex with in the **last month**?

None [0] enter number: . ……..

8.3 Did you have sex with **regular partner(s)** in the **last month**? None [0] Yes [1]

8.3.1. How often did you use condoms when you had sex with **regular partner(s)** in the **last month**?

cue card ***D***

No regular partner [0]

Always [1] Often [2] Sometimes [3] Rarely [4] Never [5]

8.3.2 How often did you use ATS before you had sex with **regular partner(s)** in the **last month**?

cue card ***D***

No regular partner [0]

Always [1] Often [2] Sometimes [3] Rarely [4] Never [5]

8.4 Did you have sex with **casual partner(s)** in the **last month**? None [0] Yes [1]

8.4.1. How often did you use condoms when you had sex with **casual partner(s)** in the **last month**?

cue card ***D***

No casual partner [0]

Always [1] Often [2] Sometimes [3] Rarely [4] Never [5]

8.4.2. How often did you use ATS before you had sex with **casual partner(s)** in the **last month**?

cue card ***D***

No casual partner [0]

Always [1] Often [2] Sometimes [3] Rarely [4] Never [5]

8.5. Did you have **paid for sex** (eg with money, **drugs** or food, place to sleep) in the **last month**?

None [0] Yes [1]

8.5.1 How often did you use condoms when you have been **paid for sex** (eg with money, **drugs** or food, place to sleep) in the **last month**?

No paid sex [0]

Always [1] Often [2] Sometimes [3] Rarely [4] Never [5]

8.5.2 How often did you use ATS before you have been **paid for sex** (eg with money, **drugs** or food, place to sleep) in the **last month**?

No paid sex [0]

Always [1] Often [2] Sometimes [3] Rarely [4] Never [5]

8.6. How often did you have anal sex in the **last month**?

None [0] enter number: . ……..

8.7. How often did you use condoms when you had anal sex in the **last month**?

No anal sex partner [0]

Always [1] Often [2] Sometimes [3] Rarely [4] Never [5]

8.8. How often did you use ATS before you had anal sex in the **last month**?

No anal sex partner [0]

Always [1] Often [2] Sometimes [3] Rarely [4] Never [5]

SECTION 9: GENERAL AND PSYCHIATRIC HEALTH

9.1 In general would you say your health was in the month prior to admission:

cue card ***I***

Excellent	Very good	Good	Fair	Poor
4	3	2	1	0

9.2 The following questions are about activities you might do during a typical day in the month prior to admission. Did your health limit you in these activities? If so, how much?

cue card ***J***

	Yes, limited a lot	Yes, limited a little	No, not limited at all
a. Moderate activities, such as moving a table or cleaning the house	2	1	0
b. Climbing several flights of stairs	2	1	0

9.3 During the one month prior to admission did you have any of the following problems with your work or other regular daily activities as a RESULT OF YOUR PHYSICAL HEALTH?

	Yes	No
a. Accomplished less than you would like	1	0
b. Were limited in the kind of work or other activities	1	0

9.4 During the one month prior to admission, did you have any of the following problems with your work or other regular daily activities as a RESULT OF ANY EMOTIONAL PROBLEMS (such as feeling depressed or anxious)?

	Yes	No
a. Accomplished less than you would like	1	0
b. Were limited in the kind of work or other activities	1	0

9.5 During the ONE MONTH prior to admission, how much did PAIN interfere with your normal work (including both work outside the home and housework)?

cue card ***K***

Not at all	A little bit	Moderately	Quite a bit	Extremely
0	1	2	3	4

9.6 These questions are about how you feel and how things have been with you during the ONE MONTH prior to admission.

cue card ***L***

	All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
a. Have you felt calm and peaceful?	0	1	2	3	4	5
b. Did you have a lot of energy?	0	1	2	3	4	5
c. Have you felt downhearted and depressed?	0	1	2	3	4	5
d. Has your physical health or emotional health problems interfered with your social activities (like visiting friends, relatives, etc.)?	0	1	2	3	4	5

MINI PLUS

M. PSYCHOTIC DISORDERS - Part 1

ASK FOR AN EXAMPLE OF EACH QUESTION ANSWERED POSITIVELY. CODE YES ONLY IF THE EXAMPLES CLEARLY SHOW A DISTORTION OF THOUGHT OR OF PERCEPTION OR IF THEY ARE NOT CULTURALLY APPROPRIATE. BEFORE CODING, INVESTIGATE WHETHER DELUSIONS QUALIFY AS "BIZARRE".

DELUSIONS ARE "BIZARRE" IF: CLEARLY IMPLAUSIBLE, ABSURD, NOT UNDERSTANDABLE, AND CANNOT DERIVE FROM ORDINARY LIFE EXPERIENCE.

HALLUCINATIONS ARE SCORED "BIZARRE" IF: A VOICE COMMENTS ON THE PERSON'S THOUGHTS OR BEHAVIOR, OR WHEN TWO OR MORE VOICES ARE CONVERSING WITH EACH OTHER.

ALL OF THE PATIENT'S RESPONSES TO THE QUESTIONS SHOULD BE CODED IN COLUMN A. USE THE CLINICIAN JUDGMENT COLUMN (COLUMN B) ONLY IF THE CLINICIAN KNOWS FROM OTHER OUTSIDE EVIDENCE (FOR EXAMPLE, FAMILY INPUT) THAT THE SYMPTOM IS PRESENT BUT IS BEING DENIED BY THE PATIENT.

Now I am going to ask you about unusual experiences that some people have.

		COLUMN A Patient Response			COLUMN B Clinician Judgment (if necessary)		
				BIZARRE		BIZARRE	
M1	a Have you ever believed that people were spying on you, or that someone was plotting against you, or trying to hurt you?	NO	YES	YES	YES	YES	1
	b IF **YES**: Do you currently believe these things? **NOTE**: ASK FOR EXAMPLES, TO RULE OUT ACTUAL STALKING.	NO	YES	YES	YES	YES	2
M2	a Have you ever believed that someone was reading your mind or could hear your thoughts or that you could actually read someone's mind or hear what another person was thinking?	NO		YES		YES	3
	b IF **YES**: Do you currently believe these things?	NO		YES		YES	4
M3	a Have you ever believed that someone or some force outside of yourself put thoughts in your mind that were not your own, or made you act in a way that was not your usual self? Have you ever felt that you were possessed? CLINICIAN**:** ASK FOR EXAMPLES AND DISCOUNT ANY THAT ARE NOT PSYCHOTIC.	NO		YES		YES	5
	b IF **YES**: Do you currently believe these things?	NO		YES		YES	6
M4	a Have you ever believed that you were being sent special messages through the TV, radio, or newspaper, or that a person you did not personally know was particularly interested in you?	NO	YES	YES	YES	YES	7
	b IF **YES**: Do you currently believe these things?	NO	YES	YES	YES	YES	8
M5	a Have your relatives or friends ever considered any of your beliefs strange or unusual? **INTERVIEWER:** ASK FOR EXAMPLES. CODE **YES** ONLY IF THE EXAMPLES ARE **CLEARLY** DELUSIONAL IDEAS (FOR EXAMPLE, SOMATIC OR RELIGIOUS DELUSIONS OR DELUSIONS OF GRANDIOSITY, JEALOUSY, GUILT, RUIN OR DESTITUTION OR OTHERS NOT EXPLORED IN **M1** TO **M4**).	NO	YES	YES	YES	YES	9
	b IF **YES**: Do they currently consider your beliefs strange?	NO	YES	YES BIZARRE	YES	YES BIZARRE	10

M6 a Have you ever heard things other people couldn't hear, such as voices? NO YES YES 11

HALLUCINATIONS ARE SCORED "BIZARRE" ONLY IF PATIENT ANSWERS YES TO THE FOLLOWING:

IF **YES:** Did you hear a voice commenting on your thoughts or behavior,or did you hear two or more voices talking to each other? YES

b IF **YES**: Have you heard these things in the past month? NO YES YES YES YES 12

SCORE AS "YES BIZARRE" IF PATIENT HEARD A VOICE COMMENTING ON THEIR THOUGHTS OR BEHAVIOR OR HEARD TWO OR MORE VOICES TALKING TO EACH OTHER.

M7 a Have you ever had visions when you were awake or have you ever seen things other people couldn't see? NO YES YES 13

CLINICIAN: CHECK TO SEE IF THESE ARE CULTURALLY INAPPROPRIATE.

b IF **YES**: Have you seen these things in the past month? NO YES YES 14

CLINICIAN'S JUDGMENT

M8 b Is the patient currently exhibiting incoherence, disorganized speech, or marked loosening of associations? NO YES 15

M9 b Is the patient currently exhibiting disorganized or catatonic behavior? NO YES 16

M10 b Are negative symptoms of schizophrenia, for example, significant affective flattening, poverty of speech (alogia) or an inability to initiate or persist in goal-directed activities (avolition) prominent during the interview? NO YES 17

M11 a IS THERE AT LEAST ONE "**YES**" FROM **M1** TO **M10b**? NO YES

M11 b

ARE THE ONLY SYMPTOMS PRESENT THOSE IDENTIFIED BY THE CLINICIAN FROM **M1** TO **M7** (COLUMN B) AND FROM **M8b** OR **M9b** OR **M10b**?

IF **NO**, CONTINUE.

NO **YES**

PSYCHOTIC DISORDER NOT OTHERWISE SPECIFIED*

Current
Lifetime

***Provisional diagnosis due to insufficient information available at this time.**

WARNING: IF AT LEAST ONE "b" QUESTION IS CODED **YES**, CODE **M11c** AND **M11d**.
IF ALL "b" QUESTIONS ARE CODED NO, CODE ONLY **M11d**.

M11c

FROM **M1** TO **M10b**: ARE ONE OR MORE "b" ITEMS CODED "**YES BIZARRE**"?

OR

ARE TWO OR MORE "b" ITEMS CODED "**YES**" BUT NOT "**YES BIZARRE**"?

NO
Then Criterion "A" of Schizophrenia is not currently met.

YES
Then Criterion "A" of Schizophrenia is currently met.

M11d FROM **M1** TO **M10b**: ARE ONE OR MORE "a" ITEMS CODED "**YES BIZARRE**"

OR

ARE TWO OR MORE "a" ITEMS CODED "**YES**" BUT NOT "**YES BIZARRE**"?
(CHECK THAT THE 2 ITEMS OCCURRED DURING THE SAME TIME PERIOD.)

NO
Then Criterion "A" of Schizophrenia is not met Lifetime.

OR IS **M11c** CODED **"YES"**

YES
Then Criterion "A" of Schizophrenia is met Lifetime.

M12 a Were you taking any drugs or medicines just before these symptoms began? 18
No Yes

b Did you have any medical illness just before these symptoms began? 19
No Yes

c IN THE CLINICIAN'S JUDGMENT, ARE EITHER OF THESE LIKELY TO BE DIRECT CAUSES OF THE PATIENT'S PSYCHOSIS? 20
(IF NECESSARY, ASK OTHER OPEN-ENDED QUESTIONS.)
No Yes

d HAS AN ORGANIC CAUSE BEEN RULED OUT? NO YES UNCERTAIN 21

IF **M12d** = **NO**: SCORE **M13 (a, b)** AND GO TO THE NEXT DISORDER
IF **M12d** = **YES**: CODE **NO** IN **M13 (a, b)** AND GO TO **M14**
IF **M12d** = **UNCERTAIN**: CODE **UNCERTAIN** IN **M13 (a, b)** AND GO TO **M14**

M13a IS **M12d** CODED **NO** BECAUSE OF A GENERAL MEDICAL CONDITION? 22
NO **YES**

IF **YES**, SPECIFY IF THE LAST EPISODE IS

CURRENT (AT LEAST ONE "b" QUESTION IS CODED **YES** FROM **M1** TO **M10b**)
AND/OR LIFETIME ("a" OR "b") QUESTION IS CODED **YES** FROM **M1** TO **M10b**.

PSYCHOTIC DISORDER
Due to a General Medical Condition
Current
Lifetime
Uncertain, code later

M13 b IS **M12d** CODED **NO** BECAUSE OF A DRUG? 23
NO **YES**

IF **YES**, SPECIFY IF THE LAST EPISODE IS

CURRENT (AT LEAST ONE QUESTION "b" IS CODED **YES** FROM **M1** TO **M10b**)
AND/OR LIFETIME (ANY "a" OR "b" QUESTION CODED **YES** FROM **M1** TO **M10b**).

Substance Induced
PSYCHOTIC DISORDER
Current
Lifetime
Uncertain, code later

M14 How long was the longest period during which you had those beliefs or experiences? _____ 24
IF <1 DAY, GO TO THE NEXT SECTION.

M15 a During or after a period when you had these beliefs or experiences, did you have difficulty working, or difficulty in your relationships with others, or in taking care of yourself? NO YES 25

b IF **YES**, how long did these difficulties last? IF ≥6 MONTHS, GO TO **M16.** __ 26

C Have you been treated with medications or were you hospitalized because of these beliefs or experiences, or the difficulties caused by these problems? NO YES 27

D IF **YES**, what was the longest time you were treated with medication or were hospitalized for these problems? __ 28

M16 a THE PATIENT REPORTED DISABILITY (**M15a CODED YES**) OR WAS TREATED OR HOSPITALIZED FOR PSYCHOSIS (**M15c = YES**). NO YES 29

B CLINICIAN'S JUDGMENT: CONSIDERING YOUR EXPERIENCE, RATE THE PATIENT'S **LIFETIME** DISABILITY CAUSED BY THE PSYCHOSIS. 30

absent	1
mild	2
moderate	3
severe	4

M17 WHAT WAS THE TOTAL DURATION OF THE PSYCHOSIS, TAKING INTO ACCOUNT THE ACTIVE PHASE (**M14**) AND THE ASSOCIATED DIFFICULTIES (**M15b**) AND PSYCHIATRIC TREATMENT (**M15d**).

1 1 day to <1 month
2 1 month to <6 months
3 >6 months

31

CHRONOLOGY

M18 a How old were you when you first began having these unusual beliefs or experiences? ☐ age 32

b Since the first onset how many distinct times did you have significant episodes of these unusual beliefs or experiences? ☐ 33

A. MAJOR DEPRESSIVE EPISODE

(➨ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

IF MODULE M HAS ALREADY BEEN EXPLORED AND PSYCHOTIC SYMPTOMS HAVE BEEN IDENTIFIED (M1 TO M10b), EXAMINE FOR EACH POSITIVE RESPONSE TO THE FOLLOWING QUESTIONS IF THE DEPRESSIVE SYMPTOMS ARE NOT BETTER EXPLAINED BY THE PRESENCE OF A PSYCHOTIC DISORDER AND CODE ACCORDINGLY.

A1	a Have you **ever** been consistently depressed or down, most of the day, nearly every day, for at least two weeks?	NO	YES	1
	IF **A1a** = **YES**:			
	B Have you been consistently depressed or down, most of the day, nearly every day, for the past 2 weeks?	NO	YES	2
A2	a Have you **ever** been less interested in most things or less able to enjoy the things you used to enjoy most of the time over at least 2 weeks?	NO	YES	3
	IF **A2a** = **YES**:			
	B In the past 2 weeks, have you been less interested in most things or less able to enjoy the things you used to enjoy most of the time.	NO	YES	4
			➨	
	IS **A1a** OR **A2a** CODED **YES?**	NO	YES	

IF CURRENTLY DEPRESSED (**A1b** OR **A2b** = **YES**): EXPLORE ONLY CURRENT EPISODE.
IF **NO**: EXPLORE THE MOST SYMPTOMATIC PAST EPISODE.

A3 **Over the two week period when you felt depressed or uninterested,**

	Current Episode		Past Episode		
A Was your appetite decreased or increased nearly every day? Did your weight decrease or increase without trying intentionally (I.E., BY ±5% OF BODY WEIGHT OR ±8 LBS. OR ±3.5 KGS. FOR A 160 LB./70 KGS. PERSON IN A MONTH)? IF **YES** TO EITHER, CODE **YES**.	NO	YES	NO	YES	5
B Did you have trouble sleeping nearly every night (difficulty falling asleep, waking up in the middle of the night, early morning wakening or sleeping excessively)?	NO	YES	NO	YES	6
C Did you talk or move more slowly than normal or were you fidgety, restless or having trouble sitting still almost every day?	NO	YES	NO	YES	7
D Did you feel tired or without energy almost every day?	NO	YES	NO	YES	8
E Did you feel worthless or guilty almost every day?	NO	YES	NO	YES	9

IF **A3e** = **YES**: ASK FOR AN EXAMPLE.

THE EXAMPLE IS CONSISTENT WITH A DELUSIONAL IDEA. NO YES

f	Did you have difficulty concentrating or making decisions almost every day?	NO	YES	NO	YES	10
	g Did you repeatedly consider hurting yourself, feel suicidal, or wish that you were dead?	NO	YES	NO	YES	11
				➨	
A4	ARE **3** OR MORE **A3** ANSWERS CODED **YES** (OR **4 A3** ANSWERS, IF **A1a** OR **A2a** ARE CODED **NO** FOR PAST EPISODE OR IF **A1b** OR **A2b** ARE CODED **NO** FOR CURRENT EPISODE)?	NO	YES	NO	YES	

VERIFY IF THE POSITIVE SYMPTOMS OCCURRED DURING THE SAME 2 WEEK TIME FRAME.

IF **A4** IS CODED **NO** FOR CURRENT EPISODE THEN EXPLORE **A3a - A3g** FOR MOST SYMPTOMATIC PAST EPISODE.

➨

A5 Did the symptoms of depression cause you significant distress or impair your ability to function at work, socially, or in some other important way? NO YES 12

A6 Are the symptoms due entirely to the loss of a loved one (bereavement) and are they similar in severity, level of impairment, and duration to what most others would suffer under similar circumstances? If so, this is uncomplicated bereavement.

HAS UNCOMPLICATED BEREAVEMENT BEEN RULED OUT? NO YES 13 ➡

A7 a Were you taking any drugs or medicines just before these symptoms began? No Yes

b Did you have any medical illness just before these symptoms began? No Yes

IN THE CLINICIAN'S JUDGMENT: ARE EITHER OF THESE LIKELY TO BE DIRECT CAUSES OF THE PATIENT'S DEPRESSION? IF NECESSARY ASK ADDITIONAL OPEN-ENDED QUESTIONS.

A7 (SUMMARY): HAS AN ORGANIC CAUSE BEEN RULED OUT? NO YES UNCERTAIN 14

A8 CODE **YES** IF **A7(SUMMARY)** = **YES** OR **UNCERTAIN**.

SPECIFY IF THE EPISODE IS CURRENT AND/ OR PAST OR BOTH (RECURRENT).

NO	YES
Major Depressive Episode	
Current	
Past	

A9 CODE **YES** IF **A7b** = **YES** AND **A7 (SUMMARY)** = **NO**.

SPECIFY IF THE EPISODE IS CURRENT AND/ OR PAST OR BOTH (RECURRENT).

NO	YES
Mood Disorder Due to a General Medical Condition	
Current	
Past	

A10 CODE **YES** IF **A7a** = **YES** AND **A7 (SUMMARY)** = **NO**.

SPECIFY IF THE EPISODE IS CURRENT AND/ OR PAST OR BOTH (RECURRENT).

NO	YES
Substance Induced Mood Disorder	
Current	
Past	

CHRONOLOGY

A11 How old were you when you first began having symptoms of depression? ☐ age 15

A12 During your lifetime, how many distinct times did you have these symptoms of depression (daily for at least 2 weeks)? ☐ 16

B. DYSTHYMIA

(➨ MEANS : GO TO THE DIAGNOSTIC BOX, CIRCLE NO, AND MOVE TO THE NEXT MODULE)

If patient's symptoms <u>currently</u> meet criteria for major depressive episode, do NOT explore <u>current</u> dysthymia, but do explore PAST dysthymia. Make sure that the past dysthymia explored is not one of the past major depressive episodes, and that it was separated from any prior major depressive episode by at least 2 months of full remission. [APPLY THIS RULE ONLY IF YOU ARE INTERESTED IN EXPLORING DOUBLE DEPRESSION.]

SPECIFY WHICH TIME FRAME IS EXPLORED BELOW: Current Past

B1	Have you felt sad, low or depressed most of the time for the last two years? (OR IF EXPLORING PAST DYSTHYMIA: "In the past, did you ever feel sad, low or depressed for 2 years continuously?")	➨ NO	YES	22
B2	Was this period interrupted by your feeling OK for two months or more?	NO	➨ YES	23

B3 **During this period of feeling depressed most of the time:**

A	Did your appetite change significantly?	NO	YES	24
B	Did you have trouble sleeping or sleep excessively?	NO	YES	25
c	Did you feel tired or without energy?	NO	YES	26
d	Did you lose your self-confidence?	NO	YES	27
e	Did you have trouble concentrating or making decisions?	NO	YES	28
f	Did you feel hopeless?	NO	YES	29
	ARE **2** OR MORE **B3** ANSWERS CODED **YES**?	➨ NO	YES	

B4	Did the symptoms of depression cause you significant distress or impair your ability to function at work, socially, or in some other important way?	➨ NO	YES	30

B5 Were you taking any drugs or medicines just before these symptoms began?
Did you have any medical illness just before these symptoms began?
IN THE CLINICIAN'S JUDGMENT: ARE EITHER OF THESE LIKELY TO BE DIRECT CAUSES OF THE PATIENT'S DEPRESSION?

HAS AN ORGANIC CAUSE BEEN RULED OUT? NO YES 31

IS **B5** CODED **YES**?

NO	YES
DYSTHYMIA	
Current	Past

<u>CHRONOLOGY</u>

B6 How old were you when you first began having symptoms of 2 years of continuous depression? ☐ age 32

D. (HYPO) MANIC EPISODE

(➨ MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

IF MODULE M HAS ALREADY BEEN EXPLORED AND PSYCHOTIC SYMPTOMS HAVE BEEN IDENTIFIED (**M1** TO **M10b**), EXAMINE FOR EACH POSITIVE RESPONSE TO THE FOLLOWING QUESTIONS IF THE (HYPO)MANIC SYMPTOMS ARE NOT BETTER EXPLAINED BY THE PRESENCE OF A PSYCHOTIC DISORDER AND CODE ACCORDINGLY.

D1	a Have you **ever** had a period of time when you were feeling 'up' or 'high' or so full of energy or full of yourself that you got into trouble, or that other people thought you were not your usual self? (Do not consider times when you were intoxicated on drugs or alcohol.)	NO	YES	1
	IF **YES** TO **D1a**:			
	b Are you **currently** feeling 'up' or 'high' or full of energy?	NO	YES	2
	IF PATIENT IS PUZZLED OR UNCLEAR ABOUT WHAT YOU MEAN BY 'UP' OR 'HIGH', CLARIFY AS FOLLOWS: BY 'UP' OR 'HIGH' I MEAN: HAVING ELATED MOOD; INCREASED ENERGY; NEEDING LESS SLEEP; HAVING RAPID THOUGHTS; BEING FULL OF IDEAS; HAVING AN INCREASE IN PRODUCTIVITY, MOTIVATION , CREATIVITY, OR IMPULSIVE BEHAVIOR.			
D2	a Have you **ever** been persistently irritable, for several days, so that you had arguments or verbal or physical fights, or shouted at people outside your family? Have you or others noticed that you have been more irritable or over reacted, compared to other people, even in situations that you felt were justified?	NO	YES	3
	IF **YES** TO **D2a**:			
	b Are you **currently** feeling persistently irritable?	NO	YES ➨	4
	IS **D1a** OR **D2a** CODED **YES**?	NO	YES	

D3 IF **D1b** OR **D2b** = **YES**: EXPLORE ONLY **CURRENT** EPISODE
IF **D1b** AND **D2b** = **NO**: EXPLORE THE MOST SYMPTOMATIC **PAST** EPISODE

During the times when you felt high, full of energy, or irritable did you:

	Current Episode		Past Episode		
A Feel that you could do things others couldn't do, or that you were an especially important person? IF **YES**, ASK FOR EXAMPLES. THE EXAMPLES ARE CONSISTENT WITH A DELUSIONAL IDEA. No Yes	NO	YES	NO	YES	5
B Need less sleep (for example, feel rested after only a few hours sleep)?	NO	YES	NO	YES	6
C Talk too much without stopping, or so fast that people had difficulty understanding?	NO	YES	NO	YES	7
D Have racing thoughts?	NO	YES	NO	YES	8
e Become easily distracted so that any little interruption could distract you?	NO	YES	NO	YES	9
f Become so active or physically restless that others were worried about you?	NO	YES	NO	YES	10
g Want so much to engage in pleasurable activities that you ignored the risks or consequences (eg, spending sprees, reckless driving, or sexual indiscretions)?	NO	YES	NO	YES	11
		➨			
D3(SUMMARY): ARE **3** OR MORE **D3** ANSWERS CODED **YES** (OR **4** OR MORE IF **D1a** IS **NO** (IN RATING PAST EPISODE) OR **D1b** IS **NO (**IN RATING CURRENT EPISODE)? RULE: ELATION/EXPANSIVENESS REQUIRES ONLY THREE D3 SYMPTOMS WHILE IRRITABLE MOOD ALONE REQUIRES **4** OF THE **D3** SYMPTOMS.	NO	YES	NO	YES	

VERIFY IF THE SYMPTOMS OCCURRED DURING THE SAME TIME PERIOD.

D4 a Were you taking any drugs or medicines just before these symptoms began? No Yes

b Did you have any medical illness just before these symptoms began?

No Yes

IN THE CLINICIAN'S JUDGMENT: ARE EITHER OF THESE LIKELY TO BE DIRECT CAUSES OF THE PATIENT'S (HYPO)MANIA? IF NECESSARY, ASK ADDITIONAL OPEN ENDED QUESTIONS.

D4 (SUMMARY): HAS AN ORGANIC CAUSE BEEN RULED OUT? NO YES | UNCERTAIN 12

D5 Did these symptoms last at least a week and cause problems beyond your control at home, work, school, or were you hospitalized for these problems? NO YES | NO YES 13

IF **D5** IS CODED **NO** FOR CURRENT EPISODE, THEN EXPLORE **D3, D4** AND **D5** FOR THE MOST SYMPTOMATIC PAST EPISODE.

D6

IF **D3** (SUMMARY) = **YES** AND **D4 (SUMMARY)** = **YES** OR **UNCERTAIN** AND **D5** = **NO**, AND NO DELUSIONAL IDEA WAS DESCRIBED IN **D3a**, CODE **YES** FOR HYPOMANIAC EPISODE.

SPECIFY IF THE EPISODE IDENTIFIED IS CURRENT OR PAST.

NO **YES**

HYPOMANIC EPISODE

Current
Past

D7 IF **D3 (SUMMARY)** = **YES** AND **D4 (SUMMARY)** = **YES** OR **UNCERTAIN** AND EITHER **D5** = **YES** OR A DELUSIONAL IDEA WAS DESCRIBED IN **D3a**, CODE **YES** FOR MANIC EPISODE.

SPECIFY IF THE EPISODE IDENTIFIED IS CURRENT OR PAST.

NO **YES**

MANIC EPISODE

Current
Past

D8 IF **D3 (SUMMARY)** AND **D4b** AND **D5** = **YES** AND **D4 (SUMMARY)** = **NO**, CODE **YES**?

SPECIFY IF THE EPISODE IDENTIFIED IS CURRENT OR PAST.

NO **YES**

(Hypo) Manic Episode Due to a General Medical Condition

Current
Past

D9 IF **D3 (SUMMARY)** AND **D4a** AND **D5** = **YES** AND **D4 (SUMMARY)** = **NO**, CODE **YES**?

SPECIFY IF THE EPISODE IDENTIFIED IS CURRENT OR PAST.

NO **YES**

Substance Induced (Hypo) Manic Episode

Current
Past

IF **D8** OR **D9** = **YES,**
GO TO NEXT MODULE.

SUBTYPES

Rapid Cycling

Have you had four or more episodes of mood disturbance in 12 months?

14
NO **YES**

Rapid Cycling

Mixed Episode

PATIENT MEETS CRITERIA FOR BOTH MANIC EPISODE AND MAJOR DEPRESSIVE EPISODE NEARLY EVERY DAY DURING AT LEAST A ONE WEEK PERIOD.

15
NO **YES**

Mixed Episode

Seasonal Pattern

THE ONSET AND REMISSIONS OR SWITCHES FROM DEPRESSION TO MANIA OR HYPOMANIA CONSISTENTLY OCCUR AT A PARTICULAR TIME OF YEAR.

16
NO **YES**

Seasonal Pattern

With Full Interepisode Recovery

Between the two most recent mood episodes did you fully recover?

17
NO **YES**

With Full Interepisode Recovery

CIRCLE ONE

MOST RECENT EPISODE WAS A **MANIC** / **HYPOMANIC** / **MIXED** / **DEPRESSED** EPISODE

SEVERITY

X1	Mild
X2	Moderate
X3	Severe without psychotic features
X4	Severe with psychotic features
X5	In partial remission
X6	In full remission

CHRONOLOGY

D10 How old were you when you first began having symptoms of manic/hypomanic episodes? ☐ age 18

D11 Since the first onset how many distinct times did you have significant symptoms of mania/ hypomania? ☐ 19

PSYCHOTIC DISORDERS - PART 2

DIFFERENTIAL DIAGNOSIS BETWEEN PSYCHOTIC AND MOOD DISORDERS

CODE THE QUESTIONS **M19** TO **M23** ONLY IF THE PATIENT DESCRIBED AT LEAST 1 PSYCHOTIC SYMPTOM (**M11a** = **YES** AND **M11b** = **NO**), NOT EXPLAINED BY AN ORGANIC CAUSE (**M12d** = **YES** OR **UNCERTAIN**).

M19 a DOES THE PATIENT CODE POSITIVE FOR CURRENT AND/OR PAST MAJOR DEPRESSIVE EPISODE (QUESTION **A8** CODED **YES**)? NO YES

B IF **YES**: IS **A1** (DEPRESSED MOOD) CODED **YES**? NO YES

C DOES THE PATIENT CODE POSITIVE FOR CURRENT AND/OR PAST MANIC EPISODE (QUESTION **D7** IS CODED **YES**)? NO YES

D IS **M19a** OR **M19c** CODED **YES**? NO YES

↓

STOP. Skip to M24

NOTE: VERIFY THAT THE RESPONSES TO THE QUESTIONS **M20** TO **M23** REFER TO THE PSYCHOTIC, DEPRESSIVE (**A8**) AND MANIC EPISODES (**D7**), ALREADY IDENTIFIED IN **M11c** AND **M11d, A8 AND D7**. IN CASE OF DISCREPANCIES, REEXPLORE THE SEQUENCE OF DISORDERS, TAKING INTO ACCOUNT IMPORTANT LIFE ANCHOR POINTS/MILESTONES AND CODE **M20** TO **M23** ACCORDINGLY.

M20 When you were having the beliefs and experiences you just described (GIVE EXAMPLES TO PATIENT), were you also feeling depressed/high/irritable at the same time? NO YES 34

↓

STOP. Skip to M24

M21 Were the beliefs or experiences you just described (GIVE EXAMPLES TO PATIENT) restricted exclusively to times you were feeling depressed/high/irritable? NO YES 35

↓

STOP. Skip to M24

M22 Have you ever had a period of two weeks or more of having these beliefs or experiences when you were not feeling depressed/high/irritable? NO YES 36

↓

STOP. Skip to M24

M23 Which lasted longer: these beliefs or experiences or the periods of feeling depressed/high/irritable?

1 mood 37
2 beliefs, experiences
3 same

M24 AT THE END OF THE INTERVIEW, GO TO THE DIAGNOSTIC ALGORITHMS FOR PSYCHOTIC DISORDERS.

CONSULT ITEMS **M11a** AND **M11b**:

IF THE CRITERION "A" OF SCHIZOPHRENIA IS MET (**M11c** AND/OR **M11d** = **YES**) GO TO DIAGNOSTIC ALGORITHMS I

IF THE CRITERION "A" OF SCHIZOPHRENIA IS NOT MET (**M11c** AND/OR **M11d** = **NO**) GO TO DIAGNOSTIC ALGORITHMS II

FOR MOOD DISORDERS GO TO DIAGNOSTIC ALGORITHM III.

J. POSTTRAUMATIC STRESS DISORDER (optional)

(➨ MEANS : GO TO THE DIAGNOSTIC BOX, CIRCLE NO, AND MOVE TO THE NEXT MODULE)

J1 Have you ever experienced or witnessed or had to deal with an extremely traumatic event that included actual or threatened death or serious injury to you or someone else? NO YES 1

EXAMPLES OF TRAUMATIC EVENTS INCLUDE: SERIOUS ACCIDENTS, SEXUAL OR PHYSICAL ASSAULT, A TERROIST ATTACK, BEING HELD HOSTAGE, KIDNAPPING, FIRE, DISCOVERING A BODY, SUDDEN DEATH OF SOMEONE CLOSE TO YOU, WAR, OR NATURAL DISASTER.

cue card ***M***

J2 During the past month, have you re-experienced the event in a distressing way (such as, dreams, intense recollections, flashbacks or physical reactions)? NO YES 2

J3 **In the past month:**

A	Have you avoided thinking about the event, or have you avoided things that remind you of the event?	NO	YES	3
b	Have you had trouble recalling some important part of what happened?	NO	YES	4
c	Have you become less interested in hobbies or social activities?	NO	YES	5
d	Have you felt detached or estranged from others?	NO	YES	6
e	Have you noticed that your feelings are numbed?	NO	YES	7
f	Have you felt that your life will be shortened or that you will die sooner than other people?	NO	YES	8

J3 (SUMMARY): ARE **3** OR MORE **J3** ANSWERS CODED **YES**? NO YES

J4 **In the past month:**

a	Have you had difficulty sleeping?	NO	YES	9
b	Were you especially irritable or did you have outbursts of anger?	NO	YES	10
c	Have you had difficulty concentrating?	NO	YES	11
d	Were you nervous or constantly on your guard?	NO	YES	12
e	Were you easily startled?	NO	YES	13

J4 (SUMMARY): ARE **2** OR MORE **J4** ANSWERS CODED **YES**? NO YES

J5 During the past month, have these problems significantly interfered with your work or social activities, or caused significant distress? NO YES 14

IS **J5** CODED **YES**?

NO	**YES**
Posttraumatic Stress Disorder **CURRENT**	

CHRONOLOGY

J6 How old were you when you first began having symptoms of PTSD? ☐ age 15

J7 Since the first onset how many illness periods of PTSD did you have? ☐ 16

J8 During the past year, for how many months did you have significant symptoms of PTSD? ☐ 17

MANCHESTER

INTERVIEWER: PLEASE REFER TO APENDIX III OF THE PROTOCOL FOR CODING DETAILS

General rules for the Five-Point Scale

Rating "O" Absent:		The item is for all practical purposes absent
Rating "1" Mild:		Although there is some evidence for the item in question, it is not considered pathological.
Rating "2" Moderate:		The item is present in a degree just sufficient to be regarded as pathological.
Rating "3" Marked:	)	See individual definitions
Rating "4" Severe:	)	

Key symptoms in the past:

(Questions about past week should include whether depressed, anxious, how getting on with other people; whether anyone seems against him; whether he can think clearly; any interference with thoughts; thoughts read; reference to him on television or newspapers; hearing voices or seeing visions).

Name of rating	**Reason for morbid rating**	**Rating**

Rating made by replies to questions:

Depressed	0	1	2	3	4
Anxious	0	1	2	3	4
Coherently expressed delusions	0	1	2	3	4
Hallucinations	0	1	2	3	4

Ratings made by observation:

Incoherence and irrelevance of speech	0	1	2	3	4
Poverty of speech, mute	0	1	2	3	4
Flattened incongruous affect	0	1	2	3	4
Psychomotor retardation	0	1	2	3	4

SECTION 10: TREATMENT CONTACT

10.1. Have you been vaccinated for Hepatitis B? Yes [2] No [1] Don't know [9]

10.2 How many times have you ever been hospitalised for general medical problems? **Note: Do not include drug/alcohol or other psychiatric treatment** ☐ times

a. How many times have you been hospitalised in the past 12 months ☐ admissions

b. How long have you spent in hospital in total in the past12 months ☐ duration

10.3. Have you ever had any treatment for an emotional or psychological health problem?
Note: Do not include drug/alcohol treatment

Yes [2] No [1]

a. How many times in total have you ever had treatment for a psychological health problem in:

	Ever	Number of times in Past 12 months
1. Hospital or other residential programme	☐	☐
2. Community mental health team	☐	☐
3. Hospital Outpatient program	☐	☐
5. Other – specify _____	☐	☐

These next questions are about treatment you may have had for methamphetamine use before.

10.4. How times in total have you ever received treatment for methamphetamine **use**? ☐ Times

10.5. How old were you the first time you first had treatment for methamphetamine **use**? ☐ Years

10.6.1. How many times have you received treatment for methamphetamine **use** in the following settings?

a. An in-patient program ☐ times

b. A residential rehabilitation program ☐ times

c. A community outpatient program ☐ times

d. Some other type of treatment ☐ times

Describe: _____

10.6.2. How many times have you received treatment for **methamphetamine psychosis?** _____ Total

10.6.2.1 How many of those times were caused by other substance induced methamphetamine psychosis? _____ Times

10.6.2.2 How many of those times were caused by poor treatment compliance? _____ Times

10.6.2.3 How many of those times were stress-induced methamphetamine psychosis? _____ Times

These next questions are about treatment you may have had for any other type of drug problem.

10.7. How many times in total have you ever received treatment for other drug problems? ____ Times

10.8. How old were you the first time you first had treatment forother drug problems? ____ Years

10.9. How many times have you received treatment for other drug problems in the following settings?

a. An in-patient detoxification program ____ times

b. A residential rehabilitation program ____ times

c. A community outpatient program ____ times

d. Some other type of formal treatment ____ times

Describe: _____

END OF QUESTIONNAIRE; THANK PATIENT
ENSURE COMPLETION OF PATIENT CLINCAL RECORD
RE TREATMENT, SYMPTOM PROFILE AND DISCHARGE INFORMATION

NOTES: Any treatment difficulties?

DISCHARGE SHEET

THIS PAGE MUST BE COMPLETED FOLLOWING THE DISCHARGE OF THE PATIENT FROM TREATMENT.

DATE OF PATIENT DISCHARGE: ☐☐ ☐☐ ☐☐☐☐ (DD MM YYYY)

DIAGNOSES AT DISCHARGE: (DSM IV/ICD 10)

NOTES:

DISCHARGE MEDICATIONS:

DRUG	DOSE	FREQUENCY

RESIDUAL PSYCHIATRIC SYMPTOMS:

POST DISCHARGE AFTERCARE: (TICK BOX)

Referral option	Offered	Patient Accepted	Patient Refused
Outpatient after care			
Residential rehab			
Other (specify)			

CUE CARD A

❶ - ❷ - ❸ - ❹ - ❺ - ❻ - ❼

VERY DISSATISFIED **VERY SATISFIED**

CUE CARD C

Never

Once or twice only

3 – 5 times

Once every 2 months

Monthly

2 – 3 times a month

Once a week

2 – 3 times a week

4 – 6 times a week

Every day

CUE CARD B

All of the time

Most of the time

About half of the time

Some of the time

None of the time

CUE CARD D

Never

Rarely

Sometimes

Often

Always

CUE CARD E

Haven't injected

Once a week or less

More than once a week (but less than once a day)

Once a day

2 – 3 times a day

More than 3 times a day

CUE CARD G

All of them

More than half

About half of them

Less than half

None

CUE CARD F

None

One time / person

2 times / people

3-5 times / people

6-10 times / people

More than 10 times / people

CUE CARD H

Never

Only once

2 – 5 times

6 – 10 times

11 – 20 times

21+ times

CUE CARD I

Excellent

Very good

Good

Fair

Poor

CUE CARD K

Not at all

A little bit

Moderately

Quite a bit

Extremely

CUE CARD J

Yes, limited a lot

Yes, limited a little

No, not limited at all

CUE CARD L

All of the time

Most of the time

A good bit of the time

Some of the time

A little of the time

None of the time

CUE CARD M

Serious Accidents

Sexual or Physical Assault

A Terrorist Attack

Being Held Hostage

Kidnapping

Fire

Discovering a Body

Sudden Death of Someone Close to You

War

Natural Disaster

A "YES" or "NO" answer is enough,
we do not want to know which one(s) happened to you