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Alcohol Involvement in Suicide in Rural and Regional Populations: Final Report

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INTRODUCTION

This report details the work undertaken, findings and lessons learnt during a pilot investigation into impulsive (unplanned) suicide in rural and regional populations. The major outputs of the project were to be a review of the literature on the topic and the conducting of a pilot study to recruit 20 patients attending emergency departments (ED) for alcohol-related impulsive suicide. At the end of the project, we were only able to recruit three patients after 18 months of trialing different recruitment methods and engaging additional agencies to assist with data collection.

AIMS OF PROJECT

This study was proposed to be used to generate preliminary data for a proposed national study; funding for which was to be sought from the National Health and Medical Research Council (NHMRC). This study aimed to:

- identify the level and type of alcohol and drug use involved in suicide attempts;
- examine the differences between rural and metropolitan suicide attempts in a number of key areas: mental health, self-esteem, level and type of alcohol use, level of alcohol dependency and time spent planning/contemplating suicide; and
- gain a more complex and deeper understanding of the role of alcohol, mental health, rurality and other relevant factors which might influence an individual to attempt suicide.

WORK UNDERTAKEN

Work progressed on two fronts. First, a review of all available literature was compiled. This review is included in Appendix A.

Secondly, we successfully negotiated the ethics application process and were able to bring on board three different agencies (Barwon Health Mental Health triage; Jigsaw Youth mental health services, and; Barwon Drug and Alcohol Services) to collect data within Geelong. The latter two agencies were recruited later in the study once it became clear that achieving the desired numbers from triage service was unlikely. In the original application, we proposed to obtain data from Orygen and Barwon Health. However, due to a poor response from Orygen staff regarding recruitment, it was decided to focus on Geelong. Clinical staff at Orygen were unsupportive of the study methods, citing patient confidentiality as a substantial hurdle and displaying protective attitudes towards their patients and making it clear that they would not recruit people as subjects for the study. The rationale for using the Geelong site only was that data would still achieve a sample of rural and urban dwellers; this was subsequently supported even in the small sample reached.

It was also seen as being more likely to achieve buy-in from clinicians as one of the co-investigators, was a clinician, in charge of the mental health team at Barwon Health.

During the development of the ethics application, Dr Miller and Dr McKenzie visited the mental health triage team on a number of occasions, working through the fine details of how best to recruit potential participants. We worked closely with the lead clinician of the Mental Health Triage team, which is the clinical group called for any suicide attempt in the Geelong region.

A recruitment protocol was agreed upon in a meeting with the entire Barwon Health mental health team and subsequently submitted to the ethics committee, which approved the project.

This project failed primarily because the clinicians who were needed for recruitment would not or could not recruit participants. The poor recruitment rate reflected a poor appreciation of research along with a very strong culture of protecting patients. While the senior staff were enthusiastic about the project, and clinical staff reported support for the project, there was a fundamental breakdown at the moment of recruitment. Senior staff continued to encourage staff to recruit patients for the study and invited the research team to attend more team meetings and functions. They also sent reminder emails to staff on a number of occasions and facilitated meetings between researchers and staff regarding recruitment.

Clinicians were required to recruit people who were attending the emergency department for an apparent suicide attempt with alcohol involved. The process agreed upon involved clinicians asking patients at the end of the clinical session whether they would be willing to be contacted by the research team within the week following their ED attendance. Patients would then be contacted by the research team within the next few days and an interview time was organised with the patient. Clinicians had a very brief checklist¹ with a suggested text if the patient fulfilled criteria. In the end, however, clinicians did not recruit subjects as forecast.

When first discussed with clinical teams, all of them were confident that they would be able to easily do the task and that they had many patients each week who fulfilled the criteria for inclusion in the study. Each time a new team/organisation was approached, they were enthusiastic about the project and confident the numbers would be achieved quickly.

As the project progressed and teams continued to not have referrals for the project, feedback was sought and protocols were changed on the advice of clinical staff. After nine months of engagement with the clinical team, it was also clear from the research team's perspective that the process needed to change as no patients were being referred and the active consent process was replaced with clinicians handing over flyers – depending on the service. This was based on feedback from clinicians that engaging in the consent process at the end of such intense engagements was very difficult and often forgotten, or felt inappropriate at that time. However, this had no impact on the number of people recruited. In final discussions with clinicians, they reported that while there were definitely less eligible patients than first thought, it was primarily because of the very difficult and often exhausting nature of the clinical interaction for both patients and staff which meant that act of recruitment was a step too far for the clinicians.

¹ See attached Barwon Health protocol and checklist, Appendix B and C respectively.

KNOWLEDGE GAINED

When conducting clinical research around sensitive topics, clinicians actually and personally responsible for recruitment must be part of the project. Ideally, they would be a part of the project from inception. An important lesson for this research team was that even though senior clinicians were involved in the project and supportive of the project, in the end, it wasn't their project and their front line team simply didn't have enough buy-in.

The three patients interviewed did support the hypothesis that some people report attempting suicide under the influence of alcohol, and show few depressive symptoms immediately following, pointing to a contributively causal role of alcohol. They all found the interview process helpful in understanding what had happened, although it was also definitely emotionally challenging.

Three females, mean age 38.3, were interviewed. All of them reported moderately harmful drinking patterns (AUDIT-C score of 8-12)². Two of the interviewees scored below the cutoff for depression on the Depression, Anxiety and Stress Scale and one also scored below the cutoff for anxiety. On the other hand one woman scored high on both anxiety and depression sub scales. Even though a tiny sample, one of the women interviewed did not demonstrate signs of mental ill-health, and one was borderline, suggesting that they are not typical suicide attempters.

Other drug use was spread evenly across the three women. One had only used alcohol and tobacco, one had used cannabis and amphetamines, and the woman with the greatest number of mental health problems also reported having used almost every drug listed. She also reported substantial drug use in the past three months, including heroin and amphetamines.

On measures of impulsivity, two of the three interviewees scored as not normally being impulsive. However, their reports of the amount of planning for the suicide attempt found that two had not planned at all, whereas one planned for less than five minutes.

A common theme was the experience of recent stressful life events. All of the interviewees reported at least two recent stressful life events, and one reported five such events. All three scored high on the DASS21 stress scale. Personal Wellbeing Index findings reflected the anxiety findings most closely.

While interviews were challenging for the participants, all reported feeling that the experience had helped them reflect on their suicide attempt in a positive and safe way and found the experience rewarding.

The prevalence of impulsive alcohol-related suicide attempts would also appear to be far lower than originally reported anecdotally by clinical staff, which suggested that many suicide attempts were impulsive acts committed under the influence of alcohol, but this finding is as unreliable as original anecdotal reports. In the end, another type of methodology is required to investigate the subject, or

² See attached Questionnaire, Appendix D.

it is possible that a team with clinicians intimately involved could conduct the study. Possible alternative methods worth following up include:

1. An audit of mental health triage records identifying cases which fit the profile
2. Following up ED attendees directly from hospital records (although this would be very challenging ethically for hospitals)
3. Placing research personnel within EDs to recruit participants directly (which would be ethically challenging and extremely expensive)

All of these possible methodologies carry substantial ethical and financial challenges. However, option 1 is the option most likely to be achievable in the short term and would at least deliver an indicator of the incidence and prevalence of this phenomenon. Ultimately, a repeat of this design by a clinician-researcher based in a mental health triage team is most likely to succeed in documenting the associations between alcohol use, mental health and impulsive suicide.

WERE THE OUTCOMES AS EXPECTED?

We had always expected that recruitment for a project investigating such an emotionally charged issue would be difficult, but did not expect recruitment to be such an issue from the clinical teams once we had their support.

The results of the surveys of the three participants were along the lines of what was expected with some people not showing ongoing mental health problems, some showing mild levels, and some showing clear levels of ongoing mental health problems. Personal wellbeing scores correlated with depression scores. The degree of impulsivity was high as expected when factoring in the alcohol involved.

PROPOSED NATIONAL STUDY

The original purpose of this pilot project was to test the feasibility of the research method and to then develop this into a national project. The ensuing difficulties have convinced the research team that the methods used here are not feasible across multiple sites. Even if a single site were to have a motivated clinician able to facilitate data collection, it is extremely unlikely that the project would be successful in other sites, for the same reasons discussed above in relation to the experience in Geelong and Melbourne. Future research into this topic should use other methods, such as employing existing clinical trials networks around emergency department research or having an automated system which sends Emergency Department attendees an invitation to participate in further research, circumventing the problem of clinician non-compliance. Although many alternative methods will come with challenges for implementation and ethical practice, the pilot data suggests the topic remains a substantial health burden worthy of rigorous research.

CONCLUSION

This research project, although failing to meet its goals, has provided some important lessons and suggests the topic of alcohol-related impulsive suicide is an issue worthy of further investigation. The project was a pilot and has shown that the approach used in this protocol is unsuccessful. Despite a very substantial amount of preliminary work being done with clinicians, the study failed primarily because it was unable to overcome the extremely emotionally charged clinical encounter and the reality that clinicians could not, for the most part, bring themselves to recruit people to a study at the end of such an intense clinical session. Further, the research has been valuable in terms of identifying the fact that anecdotal reports of high prevalence of such behaviour appear to overstate the case, although cases certainly exist as highlighted by one of the interviewees. It is concluded that further research on the prevalence of such behaviour be carried out as a first step and then more comprehensive work will have a stronger case for support.

APPENDIX A: LITERATURE REVIEW

THE RELATIONSHIP BETWEEN UNPLANNED SUICIDE AND ALCOHOL USE, A REVIEW

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ABSTRACT

Background: Unplanned suicide typically involves a gap of less than five minutes between the decision to act, and the act. This is a major and under-researched public health problem.

Objectives: To determine the extent of empirical support for the widespread clinical impression that alcohol use is an important risk factor in unplanned suicide.

Method: 17 databases were searched to identify research into the relationship between unplanned suicide, alcohol and other risk factors.

Results: Only 14 relevant studies were identified, and their results do not clearly identify unplanned suicide risk factors.

Conclusions: Further research needs to be undertaken in this area.

INTRODUCTION

Suicide is a major and worsening global public health problem. The World Health Organization (WHO) conservatively estimates that annual suicides will escalate internationally from approximately 900,000 in 1995, to exceed 1.5 million in 2020, with a 10 - 20 fold greater number of attempts (Bertolote & Fleischmann, 2009). This will equate to the annual loss through suicide of the population of Estonia, and annual suicide attempts will equate to the population of Uzbekistan. For each of these suicides and attempts many other people - family, friends, and work colleagues - are also greatly affected. Further, those who attempt suicide are often left with serious injuries, which not only affect the individual, but also their families and communities.

Suicide is especially problematic in young people and this situation is worsening. According to the WHO Mortality Database which records cause of death details for 90 countries, suicide is the fourth highest cause of death for males in the age group 15 – 19 years, and third highest cause of death for females (Mittendorfer & Wasserman, 2004). In Australia suicide is now the leading cause of death of males 15 – 44 yrs old, and is the leading cause of death for all Australians aged between 15 and 24 (ABS, 2011). Clearly governments and health professionals globally need to take action to reduce the growth of suicide and the vast damage that it causes.

A distinction between impulsive (unplanned) and non-impulsive (planned) suicide has been made as early as 1955 (Finn 1955, Kessel 1965, Williams, Sales & Wignall 1977).

Unplanned suicide differs from planned suicide in that it involves a spontaneous and non-planned action, and has been defined by Williams, Davidson & Montgomery (1980) and by Simon et al (2001) as consisting of situations where there has been a gap of less than five minutes between the suicidal decision and its implementation. There is evidence suggesting that more than half of suicide attempts can be characterised as unplanned (Baca-Garcia et al, 2005), however it is less well known what percentage of completed suicides are unplanned (Dumais et al, 2005). This form of suicidal behaviour may be a particularly insidious and under-researched public health problem. Conner (2004) contended that planned and unplanned suicide may involve different causal factors, and that further research into the differential nature of unplanned suicide is necessary to aid its prevention.

The association between alcohol and suicide in general has been clearly demonstrated (Borges, Walter & Kessler, 2000; Borges et al, 2004; Borges & Loera, 2010; Sher & Zalsman, 2005; Wilcox, Conner & Caine, 2004). People with an alcohol-use disorder are almost ten times as likely to commit suicide as are members of the general population (Wilcox, Conner & Caine, 2004). Borges, Walter & Kessler (2000) hypothesized that the relationship between alcohol use and suicide may be affected by the relationship between alcohol and co-morbid psychiatric conditions. Their results however showed that after controlling for these co-morbid psychiatric conditions, as well as for demographic variables including education, alcohol was independently and strongly associated with suicide.

Bagge & Sher's (2008) review of data on the relationship between alcohol and suicide attempts led them to conclude that it is unlikely that there is a single determinant of a causal relationship between alcohol use and suicide. The authors further concluded that the relationship is complex, and not yet fully understood. Miller (2006) suggested that individual risk factors for suicide such as mood disorders and alcohol use may be inter-related to the extent that they could each be seen as expressions of the same underlying pathology. Substance abuse could even be seen as a form of suicidal behaviour. Rossow (1995) suggested that suicide and alcohol may be different "solutions" to the common problem of unhappiness.

The extent to which alcohol is specifically linked with unplanned suicide, and how it interacts with other suicide risk factors, is less well established than is the relationship between alcohol and suicide in general. An understanding of this specific relationship may allow identification and profiling of individuals who are particularly at risk of unplanned suicide. This may lead to a reduction in unplanned suicides through increased public and health professional awareness of the different

types of suicide, and their specific triggers, by providing a theoretical basis to inform the testing of specific unplanned suicide interventions, such as improved public and health professional education.

It is possible that unplanned suicide is even more strongly linked with alcohol than is planned suicide (Williams, Sales & Wignall, 1977; Williams, Davidson & Montgomery, 1980). This may be due to alcohol's ability to cause cognitive and affective dis-inhibition, which may result in aggressive feelings and acts. Examples of the possible specific relationship between unplanned suicide and alcohol include situations where an individual acts under the influence of alcohol following the experience of a distressing life event, such as a relationship break down. An individual may in this case attempt or complete suicide even though they are not normally suicidal, and may report not having been suicidal the following day if asked.

The current study will investigate the extent to which existing research supports the widespread clinical impression that alcohol use is a strong risk factor for unplanned suicide and suicide attempts. How alcohol interacts with other potential unplanned suicide risk factors such as negative life events, mood, and personality characteristics such as impulsiveness and aggression will also be investigated.

OBJECTIVES

To identify and describe research that specifically investigates the relationship between unplanned suicide and alcohol use, and to identify and describe risk factors that may affect the relationship between unplanned suicide and alcohol use.

METHODS

The following literature search term was used: unplanned suicide OR unplanned self harm OR impulsive suicide OR impulsive self harm AND alcohol OR alcoholism. Comprehensive searches of the following 17 databases up to 2011 were undertaken using the above search terms: Academic Search Complete; CINAHL with full text; E-Journals; Global Health; Health Source: Nursing/ Academic Edition; Google Scholar; Health Issues in Criminal Justice; MEDLINE with full text; PsycARTICLES; PubMed; PsycBOOKS; PsycEXTRA; Psychology and Behavioral Sciences Collection; PsycINFO; Social Work Abstracts; SocINDEX.

Reference lists of the relevant publications that were identified by the above searches were also manually examined to identify possible additional relevant publications. The search did not include conference abstracts.

INCLUSION/ EXCLUSION CRITERIA

Prospective studies were screened on the basis of an examination of abstracts by one of the authors. All studies that included the above search term were included unless they met the following exclusion criteria:

- Publications only available in a language other than English
- Dissertations, due to their limited circulation

- Publications appearing in non peer-reviewed literature
- Studies reporting results that were restricted to a particular group, for example people with alcoholic dementia or borderline personality disorder
- Studies that were predominately biochemical in nature, for example those relating to the relationship of serotonin levels to suicide impulsivity
- Studies that were primarily of the relationship between drugs other than alcohol and suicide, for example opioids dependency, and that were primarily of behaviours other than alcohol abuse, for example gambling
- Studies that defined self harm as distinctly other than suicide or attempted suicide, for example smoking and binge eating

RESULTS

A total of 22 studies were identified by the literature search described above. 8 studies were excluded on the basis of the above exclusion criteria. Table 1 provides a summary of the 14 included studies which provides information on their location, sample size, sample type, recruitment method, study topic, definitions of unplanned suicide, and identified risk factors for unplanned suicide.

STUDY CHARACTERISTICS

Thirteen of the fourteen reported studies were published between 2001 and 2010, and one was published in 1980. Five of the reported studies used data obtained from existing large databases, consisting of the Collaborative Study on the Genetics of Alcoholism (2), the National Institute of Public Health, Copenhagen (1), the National Co-morbidity Survey (1), and the Korean Epidemiologic Catchment Area Study Replication (KECA-R) (1). Eight studies obtained cases from hospitals or addiction treatment centres.

Table 1: Details of the included studies (page 1 of 2)

Author (Year)	Location	Sample Size	Sample Type	Recruitment method
Björkstén et al. (2005)	West Greenland	833 cases	Suicide completers	Data extracted from the population registers of the National Institute of Public Health, Copenhagen
Borges et al. (2000)	USA	8,098 participants	Suicide attempters with long term alcohol dependence	Data extracted from the National Co-morbidity Survey
Conner et al. (2006)	USA	673 cases, 3,115 controls	Suicide attempters	Data extracted from the Collaborative Study on the Genetics of Alcoholism (CSGA)
Conner et al. (2007)	USA	3,729 cases	Suicide attempters with alcohol dependence	Data extracted from the Collaborative Study on the Genetics of Alcoholism (CSGA)
Conner et al (2007b)	China	277 cases, 277 controls	Suicide attempters	Patients treated for suicide attempt in Yuncheng County People's Hospital
Jeon et al. (2010)	Korea	208 cases	Suicide attempters	Data extracted from Korean Epidemiologic Catchment Area Study Replication (KECA-R)
Koller et al. (2002)	Germany	182 cases	Suicide attempters with long term alcohol dependence	Inpatient alcohol dependent patients were recruited from a treatment ward
Lejoyeux et al. (2008)	France	160 cases	Suicide attempters	Recently suicide-attempting patients recovering in an emergency room were invited to participate
Simon et al. (2001)	USA	153 cases, 513 controls	Suicide attempters	Nearly lethal suicide attempt were invited to participate
Suokas et al. (2005)	Finland	1,118 cases	Suicide completers	Suicide completers presenting in Helsinki's University Hospital emergency department over 14 years
Williams et al. (1980)	Australia	350 cases	Suicide completers	Attempted suicide cases were approached as soon as possible after the attempt
Wojnar et al. (2008)	Poland	154 cases	Suicide attempters with alcohol dependence	Patients recruited from 2 outpatient and 2 inpatient addiction treatment centres
Wojnar et al. (2009)	Poland	118 cases	Suicide attempters with alcohol dependence	Patients recruited from 2 outpatient and 2 inpatient addiction treatment centres
Zouk et al. (2006)	Canada	164 participants	Suicide completers	'Psychological autopsies' conducted on key informants

Author (Year)	Study Topic	Definition of Impulsive Suicide	Risk factors for unplanned suicide identified
Björkstén et al. (2005) Borges et al. (2000)	Investigation of seasonal variations in suicide in West Greenland		Alcohol use, aggression, over exposure to sunlight Alcohol dependence
Comner et al. (2006)	Comparing characteristics of pre-contemplative with impulsive suicide	Less than 5 minutes from decision to action	Female gender, high alcohol-related aggression
Comner et al. (2007)	Identification of correlates of suicide, distinguishing between planned and unplanned suicide attempts	Less than 5 minutes from decision to action	Female gender, high alcohol-related aggression
Comner et al. (2007b)	Comparison of characteristics of high intent, medium intent, and low intent suicide attempters		Acute stress, negative life event, low quality of life; NOT depression, chronic stress
Jeon et al. (2010)	Comparison of characteristics of planned and unplanned suicide attempters	Participants having reported no plan	Alcohol use disorder, depression, PTSD, Bipolar
Koller et al. (2002)	Identifying impulsive and aggressive characteristics of alcoholics that may predispose them to suicidal acts		Alcohol dependence, impulsivity, aggression, depression
Lejoyeux et al. (2008)	Determining the level of presence of alcohol in suicide attempters		Alcohol presence, alcohol dependence, age
Simon et al. (2001)	Exploring characteristics of young impulsive suicide attempters	Less than 5 minutes from decision to action	Fighting, male gender, inadequate ability to control aggression; not depression.
Suokas et al. (2005)	Describing clinical characteristics of suicide completers with post mortem evidence of alcohol intake		Long terms rather than acute pattern of substance abuse
Williams et al. (1980)	Ascertaining the percentage of impulsive attempted suicides, and differences between impulsive and non-impulsive suicide attempters	Less than 5 minutes from decision to action	
Wojnar et al. (2008)	Identifying correlates of impulsive and non-impulsive suicide attempts in patients with alcohol dependence	Less than 5 minutes from decision to action	Behavioural impulsivity
Wojnar et al. (2009)	Determining the effect of impulsive or non impulsive suicide type on likelihood of post alcohol treatment relapse		Behavioural impulsivity
Zouk et al. (2006)	Exploring clinical, behavioural and psychosocial characteristics of high impulsive suicides		Young, aggressive, AOD dependency, sexually abused, triggering life event

INCIDENCE OF UNPLANNED SUICIDES / SUICIDE ATTEMPTS

The percentage of total suicide attempts identified by relevant studies as unplanned ranges between 24% (Simon et al 2001) and 40.4% (Williams, Davidson & Montgomery, 1980). There is insufficient evidence to suggest that these differing estimates are attributable to a decline in the proportion of unplanned suicide to total suicide rate over time, although these studies used a common unplanned suicide criteria, of less than five minutes of pre-meditation. The lower rate was calculated from results of 153 attempted suicide cases and 513 control participants in Houston. The higher rate was based on results for 350 patients who had presented at the casualty departments of the Hobart and Canberra hospitals after suicide attempts. 5% of Simon et al's reported unplanned suicide cases incidentally involved just one second of pre-meditation.

Jeon et al (2010) analysed a large Korean epidemiologic database that contained interview data for 6510 randomly sampled adults. This analysis revealed 208 attempted suicides in the sample of whom 36% were classified as unplanned. In contrast, Koller et al (2002) noted that approximately half of suicide attempts were unplanned. Jeon et al (2010) prefer the term *unplanned* suicide to *impulsive* suicide because of the results of Wyder and De Leo's study (2007) which found no difference in impulsivity measures between impulsive and non impulsive suicide attempters.

5 of the 14 reviewed studies used a criterion of less than five minutes of pre-meditation to classify unplanned or impulsive suicide, but 9 did not, so there is a lack of consistency in the use of a criterion to define the unplanned suicide construct. Also, the unplanned suicide construct lacks validation in these studies, and there may be broad variations between studies in the effects of factors that may influence construct validity, including extent of recall bias.

UNPLANNED SUICIDE AND EXTENT OF ALCOHOL USE

Borges et al (2000) concluded on the basis of their analysis of US National Co-morbidity survey data that substance use, as well as abuse, is a significant risk factor for unplanned suicide. They attributed this relationship to a dis-inhibition mechanism whereby substances, including alcohol, reduce a person's inhibitions towards making an unplanned suicide attempt. The incidence of unplanned versus planned suicide attempts was investigated in 154 patients with long term alcohol dependence. Forty-three per cent of these participants reported lifetime suicide attempts, of which 62% were considered unplanned, which is higher than most of the rates reported for unplanned suicide attempts in general populations.

In order to help clarify the relationship between both chronic and acute alcohol use and impulsive suicide, Lejoyeux et al (2008) investigated the presence or absence of recent alcohol intake in 160 people who had presented to the emergency department of a Paris hospital following an attempted suicide. An alcohol-affected prevalence of 40% was found, with the affected group being significantly older than the non-affected group (40 versus 34.8 years). Lejoyeux et al further noted that suicide attempts associated with alcohol were likely to be perpetuated by people with an alcohol dependence.

Jeon et al (2010) found that 37% of unplanned suicide attempts were by people with alcohol use disorders, as opposed to 23% of planned suicide attempts, which suggests a particularly strong

relationship between alcohol and unplanned suicide. Wojnar et al (2008) found a link between people having made at least one lifetime unplanned suicide attempt and 12-month post treatment alcohol-abuse relapse likelihood. They found no link between *general* lifetime suicide attempts and relapse likelihood.

There is consistent evidence presented in the studies described above of a relationship between alcohol use and unplanned suicide as defined in these studies. The evidence of what factors other than alcohol may be accentuating or mediating this relationship is less clear.

CHARACTERISTICS ASSOCIATED WITH UNPLANNED SUICIDES OR SUICIDE ATTEMPTS

Koller et al (2002) found that alcoholics who attempt unplanned suicide are characterised by impulsivity, aggression, and depression. Williams, Davidson & Montgomery (1980) found no significant differences between planned and unplanned suicide attempters on age, gender, likelihood of being a repeat attempter, lethality of the attempt, alcohol ingestion prior to the attempt, or depression. This contrasts with the results of Kessel (1965) who found that unplanned suicide attempters are less likely to be psychiatrically ill than are planned suicide attempters.

Conner, Philips & Meldrum (2007) investigated differential risk factors of “high intent”, “medium intent” and “low intent” suicide attempts in China, which has approximately double the suicide rate of the USA. Depression and history of chronic stress was associated with “high intent” suicide attempts, but not with “low intent” suicide attempts. High acute stress, recent negative life events, and low quality of life were all found to be associated with suicide attempts with each level of intent, but more strongly associated with low intent suicide attempts. Conner et al (2006) found that alcohol-related aggression is uniquely related to unplanned suicide attempts.

Simon et al 2001 noted that characteristics associated with impulsive suicide are not well understood, and their results indicated that characteristics that distinguish between impulsive and non-impulsive suicide attempters include participation in a physical fight in the previous 12 months, inadequate control of aggressive impulses, and male gender, which were all significantly higher among unplanned than planned suicide attempters. Age, education level, race and whether alcohol had been consumed in the last three hours were not significantly different between the two groups. These findings are consistent with those of Williams, Davidson & Montgomery (1980). Depression was again found to be lower for unplanned than for planned suicide attempters.

Conner et al (2007) investigated the characteristics of unplanned as opposed to planned suicide attempts in alcohol dependent people, using data from the US Collaborative Study on the Genetics of Alcoholism CSGA. The researchers divided suicide attempters into two categories, (1) Pre-contemplative – with a history of suicidal ideation persisting for a week or more, and (2) impulsive – without a history of suicidal ideation. Both of these groups were compared with non suicide attempting controls. The results of this study showed that pre-contemplative suicide attempts were more likely to be lethal, more likely to involve illicit drug use, and more likely to involve depression than impulsive suicide attempts. Impulsive suicide attempts were also found to be more likely than pre-contemplative suicide attempts to be undertaken by people with higher levels of alcohol-related aggression, and by women, which contradicted the findings of Simon et al (2001).

Conner et al (2007) concluded that efforts to reduce unplanned suicide in alcohol dependent people should focus on the recognition and treatment of depressive symptoms, and that strategies for reducing unplanned suicide should include interventions targeting aggression. Björkstén et al (2005) reached a similar conclusion in response to their finding of a high aggressive-impulsive suicide rate in their study of suicide in Greenland. They attributed this high rate to the combined effects of excessive alcohol use and excessive seasonal natural light, which both increased aggression and likelihood of aggressive-impulsive suicide.

The results of the studies described above do not provide a clear and consistent indication of which factors are of primary importance in mediating the relationship between alcohol use and unplanned suicide.

RELATIONSHIP BETWEEN UNPLANNED SUICIDE AND IMPULSIVE PERSONALITY

There is a link between impulsive personality and rate of attempted suicide (Dougherty et al 2004). Wojnar et al (2009) measured the impulsivity of participants in their comparison of planned (impulsive) and unplanned (non-impulsive) alcohol dependent suicide attempters. They measured impulsiveness with the Barratt Impulsiveness scale (Barratt 1959), the impulsiveness facet of the NEO –PI-RI (Costa & McCrae, 1992) and a two choice reaction time behavioural measure (Logan & Cowen, 1984). Higher levels of behavioural impulsivity distinguished participants with impulsive suicide attempts from those with non-impulsive attempts, and from those with no attempts. It remains to be investigated whether such results will be found in a sample of acute rather than chronic alcohol abusers.

Researchers from the McGill Group for Suicide Studies in Canada (Zouk et al., 2006) explored the relationship between the personality trait of impulsivity (measured by the Barratt Impulsivity Scale) and suicide, and investigated clinical, behavioural and psychosocial factors that distinguished unplanned and planned suicide. The researchers conducted ‘psychological autopsies’ consisting of interviews with key informants, resulting in details of 164 completed suicides with individuals of known behavioural impulsivity scores. The results of this investigation indicated that, as might be expected, impulsivity scores were far higher in the impulsive suicide group than in the non-impulsive suicide group. The results also showed that impulsive suicide completers were; younger than non-impulsive suicide completers, more aggressive, more likely to have had a 6 month and a lifetime dependence on alcohol or another drug, more likely to have been sexually abused as children, and more likely to have had a triggering life event up to a week before their suicide.

IS THERE A DIFFERENT MODEL OF ALCOHOL USE FOR UNPLANNED AND PLANNED SUICIDAL BEHAVIOUR?

Esposito-Smythers and Spirito (2001) postulated that there is a different model of alcohol use for unplanned (impulsive) and planned (non-impulsive) adolescent suicide attempters. The authors suggested a model in which impulsive suicide attempters use alcohol because of an underlying syndrome of problem behaviour, whereas non-impulsive suicide attempters use alcohol to cope with negative affective states. The authors concluded that the link between adolescent substance abuse and suicidality may vary as a result of psychological characteristics. These include propensity to externalize, which is associated with impulsive suicide, and propensity to internalize, which is

associated with non-impulsive suicide. Suokas et al (2005) studied completed suicides and found results consistent with the above proposed model. Their findings were based on post-mortem evidence, and indicated that planned suicide completers are more likely than unplanned suicide completers to demonstrate a long term rather than an acute pattern of alcohol abuse.

SUMMARY AND CONCLUSIONS

This review has reported the results of 14 studies that have been conducted on the relationship between unplanned suicide and alcohol use. These studies indicate that there is a clear link between unplanned suicide and alcohol use, and that this link is different for unplanned and planned suicide, with long term rather than acute alcohol abuse patterns appearing to be a greater risk factor. The reported studies identify risk factors additional to alcohol for unplanned suicide which may dynamically interact with alcohol as interactive risk factors, however it is not clear which of these factors are most important. Aggression, existence of a triggering negative life event, acute stress, low quality of life, behavioural impulsivity and youth have been clearly identified as additional risk factors for unplanned suicide. Gender and mood, including depression, have been identified by some studies as unplanned suicide risk factors, but there is conflicting evidence supporting the relationship between these factors, alcohol use, and unplanned suicide, and no clear model has been proposed that can explain a possible interrelationship between these factors. Such a model could have important clinical benefits in terms of informing specific assessments of impulsive suicide risk.

The scarcity of research into alcohol and other risk factors for unplanned suicide, and the existence of contradictory findings, suggest that further research needs to be undertaken in order to clarify the relationship between unplanned suicide, alcohol, and other risk factors. This research may have important clinical and social benefits. A better understanding of specific risk profiles for unplanned suicide may lead to the development of prevention strategies that are specific to unplanned suicide. These may consist of increasing public and health professional awareness of the special risks that alcohol poses to people with a risk profile that includes factors such as aggressive tendencies, the presence of recent negative life events, and alcohol use.

Conner, Phillips and Meldrum (2007) suggested that targeting and reducing depression is useful for reducing general suicide rates, but not for reducing low intent (unplanned) suicide, which has specific mechanisms. They suggested that their study of suicides of different intent levels in China could inform specific unplanned suicide preventions internationally. It is therefore important to reduce convenient exposure to potential suicide aids such as toxic pesticides (a particular problem in China) and also handguns (a particular problem in the USA), which may reduce the incidence of low intent suicides. It may also be the case that a type of suicide that could be characterized as being particularly opportunistic may be reduced by reducing exposure to other potentially lethal suicide catalysts such as access to prescription drugs. Reduction of exposure to potential suicide aids may be especially valuable for people with high levels of the risk factors for unplanned suicide that have been identified in this review.

It is particularly important for clinicians to assess the unplanned suicide risk level of people who present to health care agencies and who are alcohol affected, especially if this is in conjunction with

other known or suspected risk factors. Lejoyeux et al (2008) suggested that people who have recently attempted suicide should routinely be asked about their recent alcohol intake. It may well also be worth routinely assessing the level of suicide risk of intoxicated people who present to health services. It is important that these assessments lead to appropriate interventions, such as the close supervision of intoxicated people until they become sober, and by removing potential suicide aids from their environments.

Further research needs to be conducted into the specific attributes of unplanned suicide, which may help inform specific strategies to help prevent it. Simon et al (2001) suggested that standardised criteria are needed for defining unplanned suicide, which would make further research in this area more consistent. An example of inconsistency in this area is the terminology that has been used to variously describe non-premeditated suicide as unplanned, impulsive, low intent, and pre-contemplative. Several researchers have suggested that it is important that there be an increased clarity and consistency of suicide related terminology (De Leo, Burgis et al. 2006; Silverman et al., 2007a; Silverman et al., 2007b). This clarification may be an important step towards a situation where unplanned suicide research comprehensively informs unplanned suicide clinical practice.

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APPENDIX B: ALCOHOL-INVOLVED IMPULSIVE SUICIDE STUDY - BARWON HEALTH PROCESS

PROPOSAL DESCRIPTION:

Impulsive suicide associated with heavy drinking is a substantial problem in Australia that remains poorly studied, particularly in rural and regional communities. These communities suffer from this problem more greatly on a per capita basis than do metropolitan communities. This study will potentially lead to the development of important suicide prevention strategies and interventions.

This study will be used to generate preliminary data for a proposed national study; funding for which will be sought from the NH&MRC. This pilot study aims to:

- Identify the level and type of alcohol and drug use involved in suicide attempts
- Examine regional suicide attempts in a number of key areas: mental health, self-esteem, level and type of alcohol use, level of alcohol dependency and time spent planning/contemplating suicide
- Gain a more complex and deeper understanding of the role of alcohol, mental health, rurality and other relevant factors which might influence an individual to attempt suicide.

HYPOTHESES

It is hypothesised that:

1. people who attempted suicide while intoxicated will have been more impulsive (taken less time to think about their attempt); and
2. people who attempted suicide while intoxicated will be less suicidal in the following days.

CLINICAL STAFF INVOLVEMENT:

Information sessions will be held at times suggested by team leaders with Mental Health triage staff (hereafter called 'clinical staff') to explain the project, its goals and its desired outcomes. They will also be given brief documents outlining the project and what is being asked of them in terms of identifying suitable patients and seeking consent to be contacted.

SELECTION CRITERIA

Clinical staff at Geelong Hospital will identify suitable interviewees through the use of a single page checklist supplied by the research staff (See Appendix C). Only patients who are being discharged are suitable for participation. Suitable participants will have attempted suicide while intoxicated on alcohol and/or other drugs. The attempt should not have been planned and be identifiable as

'impulsive'. Suitable participants will not have a 'pervasive history of suicide', allowing for people who may have presented with serious self harming behaviour previously, but where the behavior is not regular or planned.

Potential participants will be excluded if they are cognitively impaired, psychotic or too aggressive. The sample will focus on people over the age of 25 as this age group is looked after by the Adult mental health triage team and such a sample is suitable for a pilot of this nature. Further, patients whom the staff believes do not have the capacity to consent for themselves will also be excluded.

CLINICAL CONSENT PROCESS

The clinical consent process should be delivered at the end of discharge process. If a patient meets the above selection criteria, clinical staff will, at their discretion, read the following statement seeking consent to share contact details.

CONTACT CONSENT REQUEST STATEMENT

"Barwon Health and Deakin University are conducting a study into the relationship between alcohol intake, mood and suicidal behaviour. This link is not well understood and we hope to use this research to develop prevention measures which might reduce the number of people who attempt suicide while under the influence of alcohol.

If you are agreeable, Dr Stephen McKenzie or Dr Peter Miller from Deakin University would telephone you in the next 2 days to ask if you would be interested in participating in the research, explaining the study and answering any question you might have. If you are interested, we will pass on your phone number for them to call you. No other details will be passed on and you are under no obligation to participate. Would you be happy for us to pass on your telephone number?"

Patients will be required to sign a brief consent statement allowing for research staff to follow up . The patients will also be handed a one-page information sheet on the study with contact details – should they wish to contact researchers for further information or withdraw prior to being contacted.

INFORMED CONSENT PROCEDURE

Clinical staff will then contact research staff with the name and phone number of the potential research participant. Dr McKenzie or Dr Miller will then contact the potential research participant within 2 working days, reminding them of the purpose of the study, and asking them if they would be interested in participating. Potential participants will be reminded that they are under no obligation whatsoever, that participation is entirely voluntary and that they are free to cease the interview or withdraw at any time.

At an agreed upon date and time, interviews will be conducted at Deakin University's waterfront campus School of Psychology. At the commencement of the interview, a full informed consent procedure will be undertaken.

We believe that this three stage consent process is an important protection for the potential interviewees, while acknowledging that it will lead to greater attrition rates. The process outlined allows for people to rationally re-evaluate their initial consent to be contacted in a telephone discussion and have any questions they might have about the study answered by the researchers.

PARTICIPANT PROTECTION

Participants in this study are very vulnerable individuals. To ensure their continued well-being, a number of measures will be undertaken during and following the research interview. It is very possible that talking about their suicide attempt will be distressing to participants. While this is unavoidable to a degree, every measure will be taken to ensure they are comfortable and aware they are in control of the interview and able to refuse to answer any questions or cease the interview at any time. The interviewers will also be able to stop the interview if they believe participants are becoming upset.

Dr McKenzie and Dr Miller will be trained by Barwon Health staff on suicide and mental health risk screening and assessment so that they are able to assess the most appropriate support for the participant if required. Interviews will only be conducted by Dr McKenzie or Dr Miller, both of whom have over 10 years' experience conducting mental health research.

It has been agreed with the mental health triage team coordinator that if interviewees are distressed, the interviewer will conduct a risk assessment with the interviewee and review their treatment and support mechanisms. If indicated by the risk assessment, the mental health triage team will be contacted immediately. The overall ethos of the project is to ensure that patients are protected and that researchers work with the Mental Health Triage team to ensure patient wellbeing, while avoiding duplication of, or interference with, treatment plans.

Checklist for inclusion in Deakin University's Alcohol and Regional Suicide study

1. In your opinion, has the patient engaged in suicidal behaviour?	<input type="checkbox"/>
2. Was this suicide attempted when the patient was under the influence of alcohol and/ or other drugs?	<input type="checkbox"/>
3. Was the suicide unplanned, i.e. impulsive?	<input type="checkbox"/>
4. Is this episode NOT representative of a general long-term pattern of suicidal/self harming behaviour WHEN SOBER/ DRUG FREE?	<input type="checkbox"/>

If the answer to each of the above four questions is yes, then the following questions apply:

1. Is the patient 18 years of age or over?
2. Is the patient to be discharged?
3. Is the patient capable of providing informed consent to participate in a research study?

If the answer to each of the above three questions is also yes, then the patient is suitable for participation in the research study, UNLESS any of the following exclusions apply:

The patient is:

1. Cognitively impaired
2. Psychotic
3. Highly aggressive

IF NONE OF THE ABOVE EXCLUSIONS APPLY, please read the instructions overleaf to the patient. If they agree, please give them the attached written information sheet (page 3) to read and keep and the consent form to sign. Please send this form (pages 1-2) and the signed consent form (page 4) to Steve McKenzie when completed.



The Geelong Hospital,
Ryrie Street P.O. Box 281
Geelong Victoria 3220



Instructions to Participants

Deakin University's Alcohol and Regional Suicide study

“Barwon Health and Deakin University are conducting a study into the relationship between alcohol intake, mood and suicidal behaviour. This link is not well understood and we hope to use this research to develop prevention measures which might reduce the number of people who attempt suicide while under the influence of alcohol.

If you are agreeable, Dr Stephen McKenzie will telephone you and explain the study and answering any questions you might have and to ask if you would be interested in participating in the research. If you are interested, we will pass on your phone number for them to call you. No other details will be passed on and you are under NO obligation to participate. Participants in the study will receive two free movie tickets.

Would you be happy for us to pass on your telephone number?”

[To be sent when] completed to Steve McKenzie]

Patient Details

[Insert sticker with this information]

Patient name:

Age:

Sex:

Home Address:

Date:

APPENDIX D: QUESTIONNAIRE

SECTION 1 - PERSONAL DETAILS

Name:.....

Gender: Male / Female

Age:

Nationality:.....

Current residence:

City/Suburb:

Postcode.....

SECTION 2 PERSONAL WELLBEING

1. "Thinking about your own life and personal circumstances, how satisfied are you **with your life as a whole ?**"

Completely Dissatisfied					Neutral						Completely Satisfied
0	1	2	3	4	5	6	7	8	9	10	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. "How satisfied are you **with your standard of living ?**"

Completely											Completely
Dissatisfied					Neutral						Satisfied
0	1	2	3	4	5	6	7	8	9	10	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. "How satisfied are you **with your health ?**"

Completely											Completely
Dissatisfied					Neutral						Satisfied
0	1	2	3	4	5	6	7	8	9	10	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. "How satisfied are you **with what you are achieving in life?**"

Completely											Completely
Dissatisfied					Neutral						Satisfied
0	1	2	3	4	5	6	7	8	9	10	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. "How satisfied are you **with your personal relationships?**"

Completely											Completely
Dissatisfied					Neutral						Satisfied
0	1	2	3	4	5	6	7	8	9	10	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. "How satisfied are you with how safe you feel?"

	Completely										Completely
	Dissatisfied				Neutral						Satisfied
	0	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION 3 - DRUG AND ALCOHOL USE

ASSIST A

In your life, which of the following substances have you <u>ever used</u> ? (<i>NON-MEDICAL USE ONLY</i>)	No	Yes
a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	0	3
b. Alcoholic beverages (beer, wine, spirits, etc.)	0	3
c. Cannabis (marijuana, pot, grass, hash, etc.)	0	3
d. Cocaine (coke, crack, etc.)	0	3
e. Amphetamine type stimulants (speed, diet pills, ecstasy, etc.)	0	3
f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	3
g. Sedatives or Sleeping Pills (Valium, Serepax, Rohypnol, etc.)	0	3
h. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, etc.)	0	3
i. Opioids (heroin, morphine, methadone, codeine, etc.)	0	3
j. Other - specify:	0	3

ASSIST B

In the <u>past three months</u> , how often have you used the substances you mentioned (<i>FIRST DRUG, SECOND DRUG, ETC</i>)?	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	0	2	3	4	6
b. Alcoholic beverages (beer, wine, spirits, etc.)	0	2	3	4	6
c. Cannabis (marijuana, pot, grass, hash, etc.)	0	2	3	4	6
d. Cocaine (coke, crack, etc.)	0	2	3	4	6
e. Amphetamine type stimulants (speed, diet pills, ecstasy, etc.)	0	2	3	4	6
f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	2	3	4	6
g. Sedatives or Sleeping Pills (Valium, Serepax, Rohypnol, etc.)	0	2	3	4	6
h. Hallucinogens (LSD, acid, mushrooms, PCP, Special K, etc.)	0	2	3	4	6
i. Opioids (heroin, morphine, methadone, codeine, etc.)	0	2	3	4	6
j. Other - specify:	0	2	3	4	6

ASSIST C

	No, Never	Yes, in the past 3 months	Yes, but not in the past 3 months
Have you <u>ever</u> used any drug by injection? (<i>NON-MEDICAL USE ONLY</i>)	0	2	1

IF YES in past 3 months, which drugs have you injected? _____

AUDIT

Alcohol Users Disorders Identification Test (AUDIT) C

Questions	Scoring System					Your Score
	0	1	2	3	4	
How often do you have a drink that contains alcohol?	Never	Monthly or less	2 - 4 times per month	2 - 3 times per week	4+ times per week	
How many standard alcoholic drinks do you have on a typical day when you are drinking?	1 - 2	3 - 4	5 - 6	7 - 8	10+	
How often do you have 6 or more standard drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	

SECTION 4 - DASS 21

The rating scale is as follows:

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of time
- 3 Applied to me very much, or most of the time

1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (eg, in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3

12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

SECTION 5 - PLANNING OF SUICIDE ATTEMPTS:

1. How much planning had gone into the event which resulted in you attending hospital?
2. Looking back on it, how much thought did you give to this?
3. How much did you plan the suicide attempt?"
 - a. none, no planning at all" (scored 0),
 - b. small amount of planning" (1)
 - c. some planning, moderate amount" (2)
 - d. great deal of planning, very well planned" (3).
4. How long did you think about it before you made the suicide attempt?"
 - a. less than 5 minutes (scored 0),
 - b. more than 5 minutes but less than 1 hour (1),
 - c. more than 1 hour but less than 24 hours (2),
 - d. more than 1 day but less than 7 days (3),
 - e. more than 1 week (4).

SECTION 6 - STRESSFUL LIFE EVENTS INTERVIEW

In the 90 day-period before you attended hospital, did you experience...

1. DIVORCE (J1), MARITAL SEPARATION (J2), BROKEN ENGAGEMENT (J4), OR THE END OF SOME OTHER ROMANTIC RELATIONSHIP (J4)?

1 = NO 3 = YES..... 1. ____

2. IF YES, CODE BREAKUP:

2. ____

1 = Divorce 2 = Marital Separation 3 = Broken engagement
4 = End of other partner relationship 8 = N/A

3. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING 3. ____

4A. CONTEXTUAL THREAT (INTERVIEWER RATING)

4A. ____

1=minor 2=low mod 3=high mod 4=sev 8 = N/A

4B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 4B. ____

1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A

5. OTHER SERIOUS MARITAL PROBLEMS (J3) OR SERIOUS PROBLEMS IN AN INTIMATE PARTNER RELATIONSHIP?

1 = NO 3 = YES..... 5. ____

6. IF YES, CODE TYPE

6. ____

1 = Marital problems, 2=Intimate relationship prob., 8=N/A

7. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING 7. ____

8A. CONTEXTUAL THREAT (INTERVIEWER RATING)

8A. ____

1=minor 2=low mod 3=high mod 4=sev 8 = N/A

8B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 8B. ____

1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A

9. SEPARATION FROM LOVED ONE OR OTHER CLOSE FRIEND (J5)?

1 = No 3 = Yes 9. ____

10. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING	10. ____
11A. CONTEXTUAL THREAT (INTERVIEWER RATING) 1=minor 2=low mod 3=high mod 4=sev 8 = N/A	11A. ____
11B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A	11B. ____
12. SERIOUS ILLNESS OR INJURY (J6)? 1 = No 3 = Yes	12. ____
13. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING	13. ____
14A. CONTEXTUAL THREAT (INTERVIEWER RATING) 1=minor 2=low mod 3=high mod 4=sev 8 = N/A	14A. ____
14B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A	14B. ____
15. SERIOUS ACCIDENT (NOT INVOLVING PERSONAL INJURY) (J7)? 1 = No 3 = Yes.....	15. ____
16. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING	16. ____
17A. CONTEXTUAL THREAT (INTERVIEWER RATING) 1=minor 2=low mod 3=high mod 4=sev 8 = N/A	17A. ____
17B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A	17B. ____
18. BURGLARIZED OR ROBBED (J8)? 1 = No 3 = Yes	18. ____
19. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING	19. ____
20A. CONTEXTUAL THREAT (INTERVIEWER RATING) 1=minor 2=low mod 3=high mod 4=sev 8 = N/A	20A. ____
20B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A	20B. ____

21. ASSAULTED (J9) OR KICKED, PUNCHED, OR BEAT UP?

1 = No 3 = Yes..... 21. ____

22. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING 22. ____

23. IF YES, CODE PERPETRATOR (88 = N/A): 23. ____

11= Intimate partner or ex-partner	12 = child	13 = mother or father
14 = brother or sister	15 = in-law	16 = other family
17 = close friend	18 = neighbor	19 = boss/co-worker
20= acquaintance	21 = stranger	22= police/correction official

24A. CONTEXTUAL THREAT (INTERVIEWER RATING) 24A. ____

1=minor 2=low mod 3=high mod 4=sev 8 = N/A

24B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 24B. ____

1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A

25. RAPED (J9) OR FORCED TO HAVE SEX?

1 = No 3 = Yes 25. ____

26. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING 26. ____

27. IF YES, CODE PERPETRATOR (88 = N/A) 27. ____

11= Intimate partner or ex-partner	12 = child	13 = mother or father
14 = brother or sister	15 = in-law	16 = other family
17 = close friend	18 = neighbor	19 = boss/co-worker
20= acquaintance	21 = stranger	22= police/correction official

28A. CONTEXTUAL THREAT (INTERVIEWER RATING) 28A. ____

1=minor 2=low mod 3=high mod 4=sev 8 = N/A

28B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A	28B. ____
29. MUGGED (J9)? 1 = No 3 = Yes	29. ____
30. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING	30. ____
31A. CONTEXTUAL THREAT (INTERVIEWER RATING) 1=minor 2=low mod 3=high mod 4=sev 8 = N/A	31A. ____
31B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A	31B. ____
32. TROUBLE WITH POLICE OR OTHER LEGAL TROUBLE (J10)? 1 = No 3 = Yes	32. ____
33. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING	33. ____
34A. CONTEXTUAL THREAT (INTERVIEWER RATING) 1=minor 2=low mod 3=high mod 4=sev 8 = N/A	34A. ____
34B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A	34B. ____
35. LAID OFF OR FIRED FROM JOB (J11)? 1 = No 3 = Yes	35. ____
36. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING	36. ____
37A. CONTEXTUAL THREAT (INTERVIEWER RATING) 1=minor 2=low mod 3=high mod 4=sev 8 = N/A	37A. ____
37B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A	37B. ____
38. OTHER SERIOUS DIFFICULTIES AT WORK (J12)? 1 = No 3 = Yes	38. ____
39. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING	39. ____

40A. CONTEXTUAL THREAT (INTERVIEWER RATING) 40A. ____
1=minor 2=low mod 3=high mod 4=sev 8 = N/A

40B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 40B. ____
1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A

41. MAJOR FINANCIAL PROBLEMS (J13)? 41. ____
1 = No 3 = Yes

42. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING 42. ____

43A. CONTEXTUAL THREAT (INTERVIEWER RATING) 43A. ____
1=minor 2=low mod 3=high mod 4=sev 8 = N/A

43B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 43B. ____
1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A

44. LIVING IN A BAD NEIGHBORHOOD (J14)? 44. ____
1 = No 3 = Yes

45. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING 45. ____

46A. CONTEXTUAL THREAT (INTERVIEWER RATING) 46A. ____
1=minor 2=low mod 3=high mod 4=sev 8 = N/A

46B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 46B. ____
1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A

47. OTHER SERIOUS HOUSING PROBLEM (J15)? 47. ____
1 = No 3 = Yes

48. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING 48. ____

49A. CONTEXTUAL THREAT (INTERVIEWER RATING) 49A. ____
1=minor 2=low mod 3=high mod 4=sev 8 = N/A

49B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 49B. ____
1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A

50. DID ANYONE YOU KNEW DIE IN THE 90 DAY-PERIOD BEFORE ENTERING TREATMENT, INCLUDING A SPOUSE OR ROMANTIC PARTNER, OR ANY OF YOUR FAMILY, RELATIVES, CLOSE FRIENDS, NEIGHBORS, OR CO-WORKERS (J16-21)?

1 = No 3 = Yes 50. ____

51. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING 51. ____

52. IF YES, CODE RELATIONSHIP (#1) , 88 = N/A 52. ____

11= Spouse, ex-spouse, intimate partner, or ex-partner		
12 = child	13 = mother or father	14 = brother or sister
15 = in-law	16 = other family	17 = close friend
18 = neighbor	19 = boss/co-worker	20= acquaintance

53A. CONTEXTUAL THREAT (INTERVIEWER RATING) 53A. ____

1=minor 2=low mod 3=high mod 4=sev 8 = N/A

53B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 53B. ____

1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A

54. DID ANYONE ELSE DIE (DURING THE 90-DAY PERIOD)?

1 = No 3 = Yes 54. ____

(If no, skip to next question)

55. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING 55. ____

56. IF YES, CODE RELATIONSHIP (#2) 56. ____

11= Spouse, ex-spouse, intimate partner, or ex-partner		
12 = child	13 = mother or father	14 = brother or sister
15 = in-law	16 = other family	17 = close friend
18 = neighbor	19 = boss/co-worker	20= acquaintance

57A. CONTEXTUAL THREAT (INTERVIEWER RATING) 57A. ____
 1=minor 2=low mod 3=high mod 4=sev 8 = N/A

57B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 57B. ____
 1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A

58. DURING THE 90 DAY-PERIOD BEFORE ATTENDING HOSPITAL, DID YOU HAVE ANY SERIOUS PROBLEMS GETTING ALONG WITH ANYONE INCLUDING ANY OF YOUR FAMILY, RELATIVES, CLOSE FRIENDS, NEIGHBORS, OR CO-WORKERS (J28-35)?

1 = No 3 = Yes 58. ____

59. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING 59. ____

60. IF YES, CODE RELATIONSHIP (#1): 60. ____

12 = child	13 = mother or father	14 = brother or sister
15 = in-law	16 = other family	17 = close friend
18 = neighbor	19 = boss/co-worker	20= acquaintance

61A. CONTEXTUAL THREAT (INTERVIEWER RATING) 61A. ____
 1=minor 2=low mod 3=high mod 4=sev 8 = N/A

61B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING) 61B. ____
 1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A

62. DID YOU HAVE SERIOUS PROBLEMS GETTING ALONG WITH ANYONE ELSE?
 1 = No 3 = Yes 62. ____

63. IF YES, CODE TIMING (01 – 90), 98 = N/A, 99 = MISSING 63. ____

64. IF YES, CODE RELATIONSHIP (#2): 64. ____

12 = child	13 = mother or father	14 = brother or sister
15 = in-law	16 = other family	17 = close friend
18 = neighbor	19 = boss/co-worker	20= acquaintance

65A. CONTEXTUAL THREAT (INTERVIEWER RATING)

65A. ____

1=minor 2=low mod 3=high mod 4=sev 8 = N/A

65B. DEPENDENCE – INDEPENDENCE (INTERVIEWER RATING)

65B. ____

1=clear dep 2=prob dep 3=prob indep 4=clear indep 8=N/A

-END OF INTERVIEW-

THANK YOU VERY MUCH FOR PARTICIPATING!

Are you feeling OK? Would you like me to call a cab? Or someone else?



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