EDITORIAL

This is my first opportunity to formally welcome all dapaanz members to the official newsletter of the Addiction Treatment Research Interest Group (ATRIG). Previews of our newsletter appeared in the last two dapaanz Bulletins, but this is the first full edition of our newsletter available to all dapaanz members.

It is great to be able to share with dapaanz members some of the latest research that is emerging in the addiction treatment field in New Zealand. A major aim of researchers in this field is to provide evidence based information to help inform clinical practice. A major barrier to achieving this aim has been insufficient opportunity to share these findings with the people who matter, drug and alcohol practitioners. I believe that the collaboration shown through this joint publication will help to increase these opportunities and hope this will bring benefits to researchers and clinicians alike as we work, albeit through different means, towards a shared goal of providing the best possible services for the tangata whaiora of addiction treatment services.

I also hope that this newsletter serves to stimulate ideas and discussion among readers in relation to research and clinical practice and, accordingly, would love to hear from anyone who has comments to make or research to share. Feel free to contact me at ria.schroder@otago.ac.nz

Finally, I would like to say a big thank you to all the authors who contributed to this edition and to the ever reliable Lisa Andrews for once again formatting this publication.

Happy Reading

Ria Schroder
ATRN Editor
MESSAGE FROM THE ATRIG CHAIRPERSON

It seems a while since I have put fingers to keyboard to write an ATRIG Chair report, although, in fact, that is inconsistent with the reality as we have actually increased the publication of ATRN from three to four times a year as we work in collaboration with DAPAANZ to produce a joint newsletter. I hope that you managed to find the DAPAANZ newsletter on the back of ATRN earlier in the year! But a lot seems to have happened since that time. Whilst not personally affected, the ramifications of the earthquakes in Christchurch (and, in fact, a number of disasters around the world) and the way that they continue to affect our friends and colleagues are mind blowing. Not least, whilst I talk with colleagues around the country, I am made aware of how the ongoing impact of the earthquakes can make what is already a challenging (albeit fantastic) field to work in, so much more complex. And they can be mundane things such as simply trying to arrange an ATRIG meeting by teleconference, an event that has been postponed three times due to some earthquake related event. Then there are considerations such as accessing buildings and paperwork, changing venues for functions and events, computer sharing, clients that are traumatised or under additional pressures, and the abundance of sleep disturbed nights, not to mention the displacement of workplaces, homes and whānau.

In addition to the physical tremors occurring across the country, there are also tremors occurring through the health and addiction fields as the Government reviews more of the state agencies. The proposed changes in the Ministry of Health and Health Workforce New Zealand threaten further restructuring, which could impact on the position of workforce development agencies and the role of ALAC who, while currently holding a pivotal place in health promotion, may be amalgamated with other services in to an “arms length” health promotions agency.

On a lighter note, Cutting edge conference feels like it is just around the corner, being back in Auckland this year and with a great line up of speakers already arranged for the 1st to 3rd September. Alcohol Action New Zealand’s 2nd Annual Conference – ‘The Politics of Alcohol: Imagine NZ without Alcohol Damage’ is occurring at Te Papa, Wellington on July 6th, and the Addiction Research Symposium is on August 5th, hosted by the National Addiction Centre in Christchurch. This is a follow-up to the successful symposium hosted by the University of Auckland in July last year, and was scheduled for earlier in the year but postponed due to the February earthquake. This is a great opportunity for existing and budding addiction workers/researchers to get together for a dedicated purpose. The main objectives of this symposium are: to provide a forum for New Zealand addiction researchers to meet and share their work; provide an opportunity for research students (PhD, Masters) to present and be supported by more experienced colleagues, and to allow for focused discussions on issues of common interest to addiction researchers, including potential collaborations.

Hope to see you at one or other of these events!

Klare Braye  
ATRIG Chairperson

ABACUS REPORT

Addiction and Stress

With the untimely destructive earthquakes and series of unpredictable aftershocks witnessed in Christchurch, a substantial majority of the population of our second largest city have experienced an environment previously unimagined. For those living in the region, the stressors comprise a variable mix of events that occurred during three major earthquakes (September 2010, Boxing Day, and February 2011), daily aftershocks, lack of utilities (sewerage, potable water, roading, and housing), and the many changes wrought by the destruction of much of their heritage. Attempts to normalise living in such an environment draws a focus upon day to day living, despite the urgent macro-environmental needs of the region. This short-term focus is not unlike that which those struggling with addictions contend with, and this comparison may have an even stronger relevance.
Police and others have referred to their concerns about increased alcohol abuse, gambling, and family breakdown.\textsuperscript{1,2} Such concerns have been mainly voiced since the destructive February earthquake, and therefore based upon largely anecdotal reports rather than substantive records. Nevertheless, it is clear that many of the approximately 370,000 inhabitants were traumatised by the February earthquake and loss of life, compounded by rumours and uncertainty over aftershocks. For many, geographical escape has not been an option, resulting in lesser options of adjustment to a new reality, fear, redirected anger, or psychological escape.

**A gambling example**

Despite an overall reduction in gambling machine losses throughout NZ over the past 12 months, in the quarter following the September 2010 earthquake, these losses increased by $878,000 to $20,194,000. During the following quarter of the destructive February earthquake, admittedly the losses reduced by $1,155,000 over the previous quarter, but this was despite 50 of 114 gambling venues being affected by the earthquake, with 26 not operating by a month later. Although the most recent quarter’s losses had reduced, it still exceeded each of the two quarters preceding the first earthquake. In essence, the percentage of the total NZ gambling machine losses increased in the six months of the earthquakes, a trend against the country’s reducing gambling machines losses, and during a period when the region had substantially reduced gambling opportunities. When one takes into account that gambling machine problems account for two thirds of presenting gamblers’ problems, and an estimated 40+% of gambling machine losses are attributable to problem gamblers\textsuperscript{3}, the substantial gambling losses for the region could well be accounted for by the persistence, and probable increase, of problem gamblers. These problem gamblers may comprise those who have transitioned into problem gambling, were maintaining problems that pre-existed the earthquakes, or who had relapsed. The considerable difference between the region’s increased losses and the rest of the country’s reduced losses could well be attributable to their marked environmental differences; a population living under the effects of traumatic stress.

**How does stress affect addiction risk?**

A recent hypothetical, integrated biopsychosocial model of addiction has posited that our appraisal of stress, the negatively experienced ‘homeostasis’ of the central nervous system to new norms (allostatic load), and processing of our cognitions, all contribute towards addictive behaviours.\textsuperscript{4} This dysfunctional coping relieves stress, and sensitises us to future stress. From an alcohol perspective, a pathway is suggested of appraisal of the stressful situation (perception of threat), emotional dysregulation or negative affect, physiological arousal, cognitions that become biased towards the addiction as a coping strategy, and use to reduce the aversive symptoms. Stress can cause intrusive thoughts and negative emotions, which can cause automatic addictive behaviours that may (temporarily) reduce stress, and become resistant to change. These stress appraisals, when accompanied with a perceived or actual absence of ways to address a problem, can initiate the arousal, negative thoughts and dysphoria. The reaction to the addictive cognitive-behavioural process that triggers an urge to alleviate the stress through escape (palliative coping) results in automatic addictive behaviours. The authors posit that this model can apply to alcohol and other drug misuse, problem gambling, and a range of addictive behaviours, in that they share a stress-precipitated, automatic allostatic, and attempts to self-regulate these stressors resulting in ongoing feedback loops of dysregulation.

Other negative reinforcement models that have focussed upon biological effects have also recognised the development of addictions through an inability to tolerate stress\textsuperscript{5}, and poor stress management coupled with less ability to learn alternative functional coping strategies\textsuperscript{6}.

**A perfect storm for addiction**

The ongoing stressors and sensitised consequences experienced in Christchurch were exemplified for me in a recent Auckland training I was attending. As a truck passed by, the trainer who had travelled from Christchurch where he resided, paused, froze, and then asked if the mild movement had been a tremor. The uncertainty of the occurrence, widespread destructiveness, personal experience of trauma, and daily deprivation all persisting over more than eight months, has resulted in commonly experienced ongoing stress with even increased likelihood of PTSD\textsuperscript{7}. The reported increased problem gambling, alcohol abuse, and family violence may therefore activate the stress/addiction model cycle, initiated by the destructive macro-events, with its loss of lives, employment, ability to control, and difficulty in perceiving when the stress will end.

Sean Sullivan, ABACUS
References

The use of agonist therapy (for example methadone, buprenorphine or diamorphine) is a well-established and validated treatment for opioid dependence\(^1\). The benefits of MMT notwithstanding, there are a number of problems related to agonist treatments; the adequacy of 24 hour dosing in all patients, the high consumption of other substances by users and the difficulties of withdrawing from methadone\(^2\). Does the use of naltrexone, an opioid antagonist, have a role in the overall management of opioid dependence? Is it feasible that implantable and long-lasting naltrexone treatment may be considered as an alternative to or an aid to withdraw from opioid agonists?

A study (in publication) was carried out by a Summer Scholarship student from the University of Otago (Genevieve Rutherford-Hawkins) in 2011 to try and establish the feasibility and desirability of naltrexone implants from the opioid users perspective. A total of 16 participants (10 male, 13 on methadone programme) were recruited via the local needle exchanges in Dunedin and Christchurch. The results show a variable response to the perceived desirability of having a naltrexone implant which is lessened if there was a financial cost to the treatment. For those recently stabilised on methadone (the majority of this group were aged 18 – 24 years) there was less desire for naltrexone possibly due to the ease of entering MMT programme and its low financial burden. However there remains considerable interest particularly among those who had been on methadone for 5+ years — average age 33 years. Participants who were interested in naltrexone would be willing to pay on average, $500–$1000 for naltrexone treatment. Half of the subjects overall did not wish for naltrexone implant treatment citing reasons such as being scared of an implant, happy with methadone or wished to explore alternatives.

Despite these hesitations, an emerging literature suggests such implants may be a viable treatment option for some people. The taking of an oral opioid blocker (naltrexone) on a daily basis has not been a humanly practical behaviour for most people who have severe dependence and consequently there is a high dropout rate during treatment\(^3\). Within the last decade there have been several formulations of long lasting preparations of naltrexone, which offer a greater window of opportunity for individuals to overcome their drug dependence. Injectable depot formulations of naltrexone are shown to be safe, well tolerated and effective in reducing the subjective, cognitive and physiologic effects of intravenously delivered heroin for three to five weeks\(^4\). A poly implantable formulation of naltrexone has been developed that maintains blood naltrexone levels for 5.5 months\(^5\). Naltrexone implants have effectively reduced relapse to regular heroin use compared with oral naltrexone and was not associated with any major adverse effects\(^5\). Likewise an evaluation\(^6\) of an Australain naltrexone implant system compared with oral naltrexone indicated a better response rate, a lower side-effect potential, a lower relapse rate after six months and good general safety and tolerability of this medication. There have been questions regarding the mortality rate of patients on naltrexone, with some earlier studies showing an increased rate of mortality post treatment and upon entry into the programme\(^7\). However, a literature review concluded that although there were theoretical reasons for this proposition there was limited empirical data to support it\(^8\). With regard to safety another paper demonstrated that naltrexone implants were not associated with increased mortality upon entry to or exit from a naltrexone programme and that overall mortality rates were similar to methadone treatments\(^9\).

A Cochrane review\(^10\) of sustained-release naltrexone arrived at a conclusion that greater evaluation was required to assess the balance of benefit compared with potential harm. However a more recent review\(^11\) was more favourable towards the potential benefits of long acting sustained release formulations of naltrexone. In 2010 I visited a naltrexone implant clinic in Perth, WA and talked with a few recipients of the implant. These implanted people reported (i.e. anecdotally) a lack of craving for the continued use of opioids and little sense of grieving for the loss of a drug-orientated lifestyle. It seems to me that long-lasting naltrexone implants have given new opportunities for dependent opioid users to turn around a life that has been dominated by drug taking. This modality of treatment requires further consideration and is likely to be of use for a carefully selected subgroup of opioid dependent individuals in Aotearoa.

Gavin Cape  
Senior Lecturer, Psychological Medicine  
University of Otago

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\(^1\) Reference 1
\(^2\) Reference 2
\(^3\) Reference 3
\(^4\) Reference 4
\(^5\) Reference 5
\(^6\) Reference 6
\(^7\) Reference 7
\(^8\) Reference 8
\(^9\) Reference 9
\(^10\) Reference 10
\(^11\) Reference 11
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SMOKING CESSATION, DEPRESSION AND WEIGHT

Smoking remains a serious public health problem despite growing evidence of its link with various health problems.
This includes cardiovascular and respiratory problems, low birth weight in pregnancy and the more debilitating
illnesses like cancers. Worldwide, five million people die yearly as a consequence of smoking related illnesses. The
World Health Organization (WHO) predicts an additional 3 million deaths by 2030. Closer to home five thousand
New Zealanders die because of smoking related illnesses each year.

Despite best efforts over the years, the prevalence of adults smoking in New Zealand has dropped minimally from
25% in 2000 to 22% in 2008. Although some believe this is acceptable, others feel more can be done. Minority
groups in New Zealand, such as Māori and the mentally ill, have higher prevalence, 45.6% and 33% respectively.
Borelli et al. (2010)¹ has coined the term “underserved” population for these smokers, together with smokers from
lower socio-economic groups and those with medical co-morbidities. Another term used is “special” population.
Borelli et al. argues that it is this group where access and improvements to treatment have been lacking and this is
thought to be the reason why current prevalence has not dropped further in most developed nations.

Depression in relation to smoking is of particular interest. Depression and smoking appear to be closely connected
(see review by Wilhelm, 2006),² however what is also known is that having depression and quitting smoking leads to
poorer outcomes, i.e. more unsuccessful quit attempts. Despite needing to better understand how to support
smokers with depression this group of smokers are often excluded from quit smoking treatment trials. Reasons for
this are concerns that they are not interested in quitting and that quitting worsens their depressive illness³. As a
result, present treatment options may not be completely relevant for these co-morbid patients.

Weight gain is also of considerable interest and relevance to smoking cessation. For clinicians, this appears to be a
common complaint. Modest gains of up to five kilograms are reported to be the norm. Unfortunately, those who do
gain weight often have poorer outcomes when quitting smoking. The reason for this is obviously an imbalance
between energy input and output but what is the precise mechanism is not fully understood. A return of taste resulting in a preference for sweet and rich foods is one explanation. Diminished serotonin levels during quitting smoking leading to “comfort eating”, usually of sweet and rich foods, which can alter brain serotonin levels alleviating these symptoms is another. Following on from the idea of selective food preferences, there have been suggestions that switching of addictions may occur between substance and behavioural addiction. This is certainly worth investigating further, with food addiction recently being recognised as a research and clinical entity.

In 2010, the Zonnic and Patch Study (ZAP) was launched by the Wellington School of Medicine. The National Addiction Centre became involved in April of the same year. Five hundred and fifty patients were to be recruited in Christchurch from a total of sixteen hundred. The ZAP study is a randomised controlled clinical trial looking at the effectiveness of Zonnic™, a newer form of nicotine replacement therapy. This study will run from 2010 to 2012.

Using the ZAP study, about 250 patients from the 550 will be included in another study aimed to investigate the inter-relationship between depression and weight gain in a smoking cessation programme. This new study will use a mixed method (MM) research approach. MM uses both a quantitative and a qualitative research approach, allowing the researcher to not only investigate the variables of interest but also understand and explore the “lived experience” of patients participating in the programme. Data collection will use validated instruments on depression, food craving and addiction, and measurement on weight will be taken a total of five times corresponding with five visits for the ZAP study. Qualitative data will be obtained using focus group discussion and individual interviews. Purposive sampling will be used in order to obtain a “rich data” set. For the quantitative data, analysis will be using statistical package for social sciences (SPSS) version 19. Qualitative data will be using thematic analysis and presented using matrix analysis. Storing will be using software Nvivo version 9. Data collection has already commenced and recruitment for the ZAP study is expected to end on 31st May 2011. Qualitative data collection will start from August 2011.

On 22 February 2011, Christchurch was hit by a 6.3 magnitude earthquake. This happened in the midst of data collection in a smoking cessation clinical trial. Whilst some patients had relapsed to smoking as a result of this natural disaster, there were others who did not. A brief literature review conducted showed no articles related to smoking cessation trials and natural disasters and this is therefore worthy of further exploration. This experience may increase our understanding regarding issues related to resilience.

It is hoped that the outcomes from this study will assist future management of patients with depression who smoke. It is also hoped that the qualitative data obtained will give us a better understanding of the experiences of patients attending a quit smoking programme and provide a glimpse on the issue of resilience during a natural disaster.

Amer Nordin
PhD Student
National Addiction Centre
University of Otago, Christchurch

Acknowledgments
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References:


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**Addiction Research Symposium**

On Friday **5th August** the National Addiction Centre will host a one day Addiction Research Symposium at the University of Otago, Christchurch. This will be a follow-up to the successful symposium hosted by the University of Auckland in July last year. The day will start at 8:30am and will finish before 5pm with an opportunity for informal mingling with refreshments.

As most of you will know this symposium was initially scheduled for the 11th of March but was cancelled following the earthquake. We have been very appreciative of the offers of support and delighted to now be able to get this valuable meeting back up and running. The earthquake means that many meeting venues are not currently available. We have been very fortunate in being able to book St Christopher’s Church, 244 Avonhead Rd. As well as being close to the airport and undamaged by the earthquake this venue has a high quality AV system in place, and comfortable seating for a full day meeting, so in many ways it is a better option to what we had originally booked for March. For those planning to come to Christchurch for more than just the day please bear in mind that accommodation options are more limited than is usually the case.

**The Main Objectives:**

- To provide a forum for New Zealand addiction researchers to meet and share their work
- To provide an opportunity for research students (PhD, Masters) to present and be supported by more experienced colleagues
- To allow for focussed discussions on issues of common interest to addiction researchers, including potential collaborations

Researchers in the areas of alcohol, nicotine, other substances and behavioural addictions are welcome.

The day will be a mix research presentations and focus group discussions. One of the sessions will be an opportunity to break in to three groups to discuss research opportunities in specific areas. One of these groups will be looking at addictions in the criminal justice setting, while the other two topics are yet to be confirmed.

**Abstracts:**

The presenters will be given 15 minutes to present their papers followed by 10 minutes for questions. An abstract of no more than 300 words should be sent to Dr Simon Adamson (simon.adamson@otago.ac.nz) by **8 July**. As this is a one day meeting we only have limited spaces for presentations, but we will endeavour to schedule a balance of presenters from each institution and to also balance student researchers more experienced researchers. If you require earlier notification of abstract acceptance please advise and submit early. **Please note** if you submitted an abstract for the March meeting please advise us whether you still plan to attend and would like to present the same material, submit an altered abstract, or withdraw your abstract.

**Registration:**

Registration forms will be sent out at the start of July. The registration fee is $60 and this will be waived for full-time students, for whom we will be able to provide travel support.
MEMBERSHIP/RENEWAL FORM

Please note all individuals wishing to be a member of ATRIG must join by completing this form regardless of current membership status.

Membership in ATRIG entitles you to the following:
• three issues of the Addiction Treatment Research News via email
• membership in the ATRN email discussion group

PLEASE ENROL ME AS A MEMBER OF ATRIG (ADDICTION TREATMENT RESEARCH INTEREST GROUP). I HAVE READ AND SIGNED THE DECLARATION BELOW.

Surname _______________________________ First Names ___________________________________
Postal Address ____________________________________ _____________________________________
____________________________________________________________________________________
Daytime Phone Number _____________________  Fax Number ______________________________
E-Mail Address (please print clearly) ____________________________________________________

(NB - You must provide an email address if you wish to receive a copy of ATRN)

The objectives of ATRIG are:
• To foster interest in scientific research on treatment of people with addiction related problems in Aotearoa New Zealand.
• To disseminate and promote research findings related to effective treatment of people with addiction related problems in Aotearoa New Zealand.
• To support the development of improved treatment services for people with addiction related problems in Aotearoa New Zealand.

Declaration
I support the objectives of ATRIG and wish to be a member of ATRIG for the 2011 calendar year. I understand membership fee is $20.

Signed _______________________________ Date ___________________

Please make cheques payable to: ATRIG

I am interested in participating in an email discussion group around ATRN

Thank you for completing this form and sending it back with payment to:
Lindsay Atkins, ATRIG, PO Box 4345, Christchurch 8140, New Zealand
(Phone 03 364-0480, Fax 03 364-1225)