LA TROBE UNIVERSITY

FACULTY OF HEALTH SCIENCES

Leading the way in health science education

Strengthening Knowledge of Oral Health: The Development of a Supportive Education Program for Multidisciplinary Health Professionals and Mental Health Consumers

FINAL REPORT

June 2009

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Acknowledgements

We sincerely thank the Commonwealth of Australia, Department of Health and Ageing for funding this important project.

The philosophy of the project has created a unique collaboration between people who ordinarily may not have had the opportunity to come together. We have worked on a specific project, but much more importantly, have got to know each other on a whole lot of different levels.

We know that the project has created interest and that hundreds of people have contributed through completing questionnaires, sharing their stories or just talking about the project. We wish to thank everyone that has shown an interest in the project and contributed in so many ways.

Preface

We are delighted to present our final report for the project titled:

> *'Strengthening oral health: The development of a supportive education program for multidisciplinary health professionals and mental health consumers'*.

The project has been an exceptionally exciting one with mental health consumers and health professionals from a wide discipline background sharing their experiences through what has been a significant collaborative endeavour.

The project has enabled a group of people to come together from very different backgrounds to try and develop a shared understanding of the oral health issues that impact on mental health clients. It has been a challenging but insightful journey.

Martin Minsky, the American cognitive scientist wrote:

> *You don't understand anything until you learn it more than one way.*

For every individual involved in this project, there has been collective learning as we have shared expert knowledge from a diversity of perspectives. We have all developed a deeper understanding of oral health and mental health through sharing experience that has encouraged all of us to look at things from many different viewpoints.

Executive Summary

In Australia, like many countries, poor oral health makes a significant contribution to the burden of disease. For mental health clients there is clear evidence that individuals face significant issues around declining oral health and poor access to services. Studies have indicated that the mainstreaming of psychiatric care has resulted in the responsibility for oral health being placed with mental health clients who face many barriers in accessing this care.

Little has been reported about the oral health status of Australians with mental health problems; however, international reports consistently show significantly higher levels of dental disease. Key national and international reports have identified the major issues that impact on improved oral health for mental health clients. These factors include the type of mental illness, client motivation and self esteem, dental phobias, understanding of the importance of oral health, socioeconomic factors, lack of understanding of how to access dental services, and the impact of pharmacology used in psychiatry. Importantly, oral health knowledge and attitudes of health professionals and dental professional's attitudes and knowledge of mental health problems have been identified as major mitigating factors that impede improved oral health outcomes for mental health clients. It has been argued that the impact of poor oral health amongst mental health clients extends well beyond dental issues and is a major contributor to a mental health clients self esteem and social acceptance.

Aligning closely with the objectives of the National Advisory Committee on Oral Health and *Healthy Mouths Healthy Lives: Australia's National Oral Health Plan 2004–2010,* this project aimed to improve quality of life for rural mental health clients in the area of oral health by developing resources to improve oral health knowledge and skills of health professionals and mental health consumers.

Using an action research approach, underpinned by cooperative inquiry, a critical group that included representatives with expertise in primary health care, Aboriginal and Torres Strait Islander health work, general practice, community mental health, allied health, pharmacy and dental and oral health was formed. Importantly, we worked closely with the Victorian Mental Illness Awareness Council to engage consumers as equal partners in the process. Using the action research spiral processes, the critical group informed all stages of the project.

The critical group worked closely together to develop a shared understanding of ways in which oral health and mental health could be maximised in the rural/regional context. An oral health questionnaire was developed by the group and distributed widely to develop an understanding of current issues, including knowledge and attitudes to oral health and mental health. The stories of mental health consumers were told and these provided a powerful insight into the realities of oral health care. Focus groups were conducted with health professionals and consumers to capture their views.

The collection of data and work of the critical group enabled us to draw together existing evidence based resources and new resource material in an educational package designed to

improve oral health and mental health knowledge. The materials were continuously reviewed and refined by our critical group and wider stakeholders. In completing the project, we have developed a full day dissemination workshop that will be advertised widely to health professionals and mental health consumers and carers. The workshop will include practical training sessions, presentation of the developed educational package and opportunities for networking.

This project has been highly successful in initiating and nurturing collaborative partnerships between interdisciplinary health professionals and consumers. The outcomes of the project have been achieved through the efforts of many people, people who have given up precious time to commit to the project. At the start, we had varying levels of interest in the project. As we complete the work, what is evident is the passion that has been developed amongst all individuals that have been involved for improving oral health outcomes for mental health clients.

One of the health professionals who received a questionnaire for this project returned it. The person did not complete it, rather wrote boldly across the bottom:

We don't need surveys; we need services to refer to.

In working through this project, we have, as a group, developed a strong commitment for improving oral health services for mental health clients and are determined to explore ways to strengthen services and access in our region. The project has provided an important first step in what we hope will become a significant area of our work.

On behalf of the project team I am delighted to submit our final report.

Associate Professor Amanda Kenny
Faculty of Health Sciences, La Trobe University
June 2009

1. Background and rationale for the study

The *Healthy Horizons Framework* provides a blueprint for the improvement of the overall health status of rural communities and highlights both the importance of oral health and the significant issues surrounding mental health. This project brings together both key areas and proposes a plan to support, educate and train health professionals and consumers by focusing on a key issue, the oral health of mental illness clients. It establishes and encourages collaborative partnerships between interdisciplinary health professionals and consumers through the development of processes and materials that will be available for wider dissemination. This project fits closely with the objectives of the National Advisory Committee on Oral Health and *Healthy Mouths Healthy Lives: Australia's National Oral Health Plan 2004–2013 (National Advisory Committee on Oral Health, 2004)*.

We wish to acknowledge the fantastic work of Jodi Leversha, Stacey Bracksley, Monica Nasr, Jane Lien and Virginia Contreras; Bachelor of Oral Health Science students who contributed to the literature review.

1.1 The prevalence of mental health issues

Key surveys have indicated that the prevalence of mental health problems in Australia is significant, supporting the inclusion of mental health as one of the country's seven National Health Priority Areas (Australian Government, 2007). The Australian Institute of Health and Welfare (AIHW) ranked mental illness as the third major illness in Australia after cardiovascular disease and cancer (Australian Institute of Health and Welfare, 2008a). Studies have suggested that in Australia, 16.1% of males and 7.8% of females have a significant mental disorder (Australian Institute of Health and Welfare, 2005). Australian statistics released in 2008 indicate that of the 16 million Australians between the ages of 16 and 85, 7.3 million will suffer from a mental disorder sometime in their life (Australian Bureau of Statistics, 2009).

A major report on young people's mental health indicated that approximately 500,000 Australians aged between 4-17 years have serious emotional and behavioural health problems (Sawyer et al., 2000) and in the 18-24 age bracket, 27% of males and 26% of females are deemed to have a significant mental health problem (Australian Institute of Health and Welfare, 2003). Since the early 1990s, there have been major changes to the way in which mental illness has been managed in Australia. The reforms that have been implemented have been driven by the three Plans of the National Mental Health Strategy (Australian Government Department of Health and Ageing, 2007). The focus has been on 'mainstreaming' mental health care, by increasing the focus on community based care. Consistent with this strategy, in Australia in 2003-2004, there were almost five million mental health service contacts in outpatient and community based mental health services (Australian Institute of Health and Welfare, 2005).

1.2 Oral health

In Australia, poor oral health makes a significant contribution to the burden of disease, measured in terms of disability adjusted life years (DALYs) with oral health care currently one of the major reasons for hospitalisation (Australian Institute of Health and Welfare, 2008b). In 2003, 5.1 billion dollars was expended on Australian dental care and it is estimated that by 2033 dental health expenditure will increase by 144% (Australian Institute of Health and Welfare, 2008a).

The National Oral Health Plan provides evidence of some improvement in the oral health status of the broader community. However, the plan identifies that the "gap between the oral health status of the advantaged and the disadvantaged is substantial and increasing" (National Advisory Committee on Oral Health, 2004, p. 31). Mental health clients were identified in this plan as one of the major disadvantaged groups facing significant issues around declining oral health and poor access to dental services (National Advisory Committee on Oral Health, 2004). Studies have indicated that the mainstreaming of psychiatric care has resulted in the responsibility for oral health being placed with mental health clients who face many barriers in accessing this care (National Advisory Committee on Oral Health, 2004).

1.3 Understanding serious mental illness

The Australian mental health system targets the broad spectrum of mental health, illness and disorder (Australian Government, 2009; Australian Health Ministers, 1992, 1998, 2003). In an effort to clearly target service interventions, mental illness has been categorised into mild to moderate, moderate to severe and severe mental illness according to the severity of impact in the domains of disability, disease burden and quality of life measures. Severe mental illness has been defined as "severe and often enduring or episodic disturbance, distress and /or psychiatric disability" (Department of Human Services, 2008, p. 27).

Severe mental illness is generally agreed to include low prevalence psychotic illness. Diagnostic groups associated with psychosis include schizophrenia, bipolar disorder, major depression and some personality disorders. People diagnosed with an enduring psychotic disorder are commonly seen with advanced dental diseases (Almomani, Brown, & Williams, 2006).

For people diagnosed with schizophrenia, symptoms experienced are classified into four major areas; negative, positive, mood and cognitive symptoms (Stuart, 2009). Negative symptoms include a range of problems involving the emotions; affective flattening, anhedonia and impaired decision making. Negative symptoms include alogia, avolition and attentional impairment (Stuart, 2009). Positive symptoms experienced are hallucination and delusions (Muhlbauer, 2008). Mood symptoms involve dysphoria, suicidality and hopelessness (Stuart, 2009). In the cognitive area, symptoms involve attention, memory and the executive functioning of the mind, which impacts significantly on problem solving and decision making (Stuart, 2009).

Bipolar disorder incorporates mood symptoms including major depressive features (Stuart, 2009). Mania is also present, exhibited as behaviour which can include aggression, euphoria, impulsive behaviour, and decreased sleep. Depressive episodes can result in sadness, low mood, low self-esteem, and disturbances in appetite (Weinberg, Westphal, & Fine, 2008). People diagnosed with a bipolar disorder have a 60% to 70% higher chance of long term use of substance abuse (Stuart, 2009).

Severe depression is characterized by a decrease in interest or pleasure in activities. People experience significant prolonged fatigue and a sustained lack of pleasure and interest in all domains of life (Fleckenstein, Hanson, & Venturelli, 2004). Psychomotor and neurovegetative physical slowing together with a reduced capacity to undertake general activities is experienced with severe depression (Downie, MacKenzie, & Williams, 1995). Symptoms experienced can include a range of mood states from sadness to miserable along with brightened periods and appetite change (Downie et al., 1995). Depression can also impact physical performance because of feelings of exhaustion (Downie et al., 1995).

1.4 The impact of mental illness on oral health

While serious mental illness impacts on all areas of a person's life, research has demonstrated a strong relationship between serious mental illness, advanced dental problems and poor oral health outcomes (Kilbourne et al., 2007). From an Australian perspective, little has been reported about the oral health status of Australians with mental health problems; however, based on international reports that show consistently higher levels of dental disease it could be hypothesized that a similar trend would be evident in this country (Friedlander, A & Mahler, 2001; Friedlander, A & Marder, 2002).

Key national and international reports have identified the major issues that mitigate against improved oral health for mental health clients (Griffiths, 2000). These factors include the type of mental illness, client motivation and self esteem, understanding of the importance of oral health, socioeconomic factors, and lack of understanding of how to access dental services. Studies have suggested that mental health clients have poor oral health practices including brushing of teeth and avoid dental visits (Tang, Sun, Ungvari, & O'Donnell, 2004). Issues such as poor diet, and heavy cigarette smoking also contribute to increased oral health issues for mental health clients (Mirza, Day, & Phelan, 2001a).

Due to the long-standing nature of mental health disorders, clients usually access irregular health care, show poor health seeking-behaviours, and have dental phobias, high anxiety and/or paranoia (Burchell, Fernbacher, Lewis, & Neil, 2006). This linked with negative symptoms from the mental illness, medication side-effects, access and financial difficulties can cause an extended period when the client accesses no dental treatment (Friedlander, A & Marder, 2002). Mental health clients often have high levels of transience which dislocates them from support systems. The

Australian "Dental as Anything" program reports that some mental health clients have not seen a dentist in as many as 25-50 years (Burchell et al., 2006).

It has been argued that the impact of poor oral health amongst mental health clients extends well beyond dental caries, tooth discoloration, and oral malodour and is a major contributor to a mental health clients self esteem and attempts at social acceptance (Davies, Bedi, & Scully, 2000). Broken down teeth can act to diminish employment prospects and lead to problems when interacting with bank managers, landlords and health services to further disadvantage an already marginalised group (Senate Community Affairs Reference Committee, 1998).

1.4.1 Cognitive deficits

Cognitive deficits experienced in people suffering from psychiatric disorders can impact on their oral health (Almomani et al., 2006). These deficits affect a person's memory, attention and problem solving which impacts on any skills training programs and the person's ability to benefit from participation in these programs (Almomani et al., 2006). Mental illness can interfere with the rate of skill acquisition, and improvement in the skills and outcomes that can be achieved from intervention programs (Almomani et al., 2006).

1.4.2 Motivation and apathy

Lack of motivation and apathy, commonly associated with mental illness, has an effect on oral hygiene performance which results in poorer oral health (Almomani et al., 2006). People with mental health disorders experience symptoms that include poor motivation; and as a consequence reduce the person's ability to perform effective oral hygiene practices (Almomani et al., 2006).

People with psychotic disorders commonly experience decreased energy and tiredness, where everything becomes an effort. This can have a significant impact on oral hygiene performance. Inadequate oral hygiene performance can lead to halitosis, gingival and periodontal diseases, dental caries and also pose risks to a person's general health (Griffiths, 2000; National Advisory Committee on Oral Health, 2004).

Clients with mental illness can have a poor record of attendance at dental services. Researchers have reported that they often lack the motivation to attend dental appointments and follow up appointments, even when experiencing dental problems (Ahmad, Sadiq, & Bouch, 2007). The consequences for neglecting dental diseases can lead to emergency treatment under general anaesthetic which generally results in the patient being edentulous (Griffiths, 2000; National Advisory Committee on Oral Health, 2004).

1.4.3 Education and oral health knowledge

Studies have demonstrated the link between an individual's level of education and their oral health. A person who has not completed secondary school has worse oral health compared to a person who has a university degree. People with lower education levels also are disadvantaged when accessing dental care (Ellershaw, 2006). The reasons for this are unclear but this may be related to income level and capacity to access services.

Studies have shown that oral health knowledge amongst mental health clients is poor. Research conducted in Hong Kong considered oral health knowledge amongst psychiatric inpatients (Tang et al., 2004). In this study of adult in-patients, 73% of participants had decayed teeth and 54% in need of extractions (Tang et al., 2004). The researchers suggested that psychiatric patients can be oblivious to the effect of their medications and lifestyles on oral health outcomes and preventative or educational approaches are fundamental (Tang et al., 2004). A study by Lewis et al. (2001) indicated that mental health clients did not know of their dental problems, and the only detection of poor oral health was a result of experiencing pain (Lewis et al., 2001). Researchers have consistently recommended oral health promotion amongst mental health clients in the form of group education and/or basic demonstrations (Phelan, Stradins, & Morrison, 2001a).

Researchers have indicated that there are low levels of oral health awareness amongst mental health carers (Cumella, Ransford, Lyons, & Burnham, 2000, p. 199). It has been suggested that oral hygiene is seen as somewhat of a lower priority in comparison to other tasks required to be undertaken by carers (Faulks & Hennequin, 2000). Researchers suggest that carers perceive nothing to be wrong with the patient's oral health unless pain is present, thus not encouraging and arranging for dental appointments to take place. This lack of awareness can lead to a significant decrease in prophylactic treatment for mental health clients (Faulks & Hennequin, 2000). It is argued that education of carers in regards to the importance of oral health problems must be a priority (Faulks & Hennequin, 2000).

1.4.4 Co-morbidity

Co-morbidity, whether it be the incidence of more than one mental disorder or a mental disorder with other health problems, is common among people with serious mental illness (Burchell et al., 2006). Serious mental illness is commonly related to emphysema, lung cancer, cardiac disease and oral cancer due to increase smoking behaviours (Friedlander, A & Marder, 2002). Obesity, diabetes, heart disease and adverse affects of anti-psychotic medications are at a higher rate than the general population (Nocon, 2006). It is said that primary care practitioners are more effective and preventive focussed when treating co-morbidity patients than specialists' providers in regards to unrelated conditions to the specialty (Harris & Zwar, 2007). However mandatory annual health checks for mental health patients by a general practitioner are in place to help identify physical illness, but have not shown to lead to improvements in healthcare (Nocon, 2006). These general check-ups do not include any form of oral examination.

1.4.5 Socioeconomic status

Researchers have clearly illustrated that poor overall health is linked to low socio-economic circumstances. People suffering from mental health illnesses are more likely to live in poverty and experience health inequalities (Nocon, 2006). Falling into a low socio-economic status (SES) group carries numerous health risk factors such as; smoking, poor diet, poor housing conditions, work-based hazards, difficult social relationships and stressful life events. People with a low SES are more likely to engage in risk taking behaviours which can have a negative impact on oral health (Nocon, 2006). As an example, 70% of mental health clients currently smoke compared to 20% of the Australian public (Burchell et al., 2006).

1.4.6 The relationship between fear and oral health

While fear and anxiety related to dental services and treatment is common within the broad public, clients with mental illness can face an additional burden. Psychotic clients may experience significant dental anxiety or dental fear which limits their access to receive treatment and can impact on their ability to attend dental clinics (Almomani et al., 2006; Salsberry, Chipps, & Kennedy, 2005). Heightened levels of dental fear may be associated to a past history of traumatic events, anxiety- prone personality and having a negative perception of the dentists or dental settings (Abrahamsson, Berggren, Hallberg, & Carlsson, 2002). People that experience dental fear generally experience a feeling of being threatened or violated. More specifically from loss of control, feelings powerless, feeling weak and fear of suffocation. Research has indicated that dental fear can have a significant impact on avoidance of dental services, missed appointments or incomplete treatment (Abrahamsson et al., 2002; Moore, Birn, Kirkegaard, Brodsgaard, & Scheutz, 1993; Salsberry et al., 2005).

1.4.7 The impact of mental illness on access

It has been argued that a major contributing factor to poorer health outcomes for people with mental health illness is access to dental treatment (Kilbourne et al., 2007; Stiefel & Truelove, 1990). Studies have clearly shown the particular characteristics that disadvantage a person when accessing dental treatment (Ellershaw, 2006; Hardford, Ellershaw, & Stewart, 2004; Schwarz, 2006; Stewart, Careter, & Brennan, 1998). Importantly, researchers have demonstrated a person suffering with a serious mental illness often exhibits these undesirable characteristics (Barnes et al., 1988; Burchell et al., 2006; Moore et al., 1993).

1.4.8 Stigma

The treatment delivered to clients by dental professionals can have an influence on a person's willingness to access care. Studies have indicated that dentists can feel concerned about treating mental health clients due to lack of confidence, familiarity and knowledge of mental health conditions. This can result in discrimination against people with mental health illness (Kilbourne et al.,

2007). It has been argued that stigma can create a barrier for mental health clients to access appropriate and adequate care, and can cause the client to be uncooperative with treatment at the dental clinic (Finlay, Dinos, & Lyons, 2001; Hocking, 2003).

1.5 Mental health pharmacology and oral health

The impacts of oral health adverse effects that arise from common pharmacology used in psychiatry are consistently identified in the literature (Page & Somerville-Brown, 2007).

1.5.1 Psychotropic medication

The groups of psychotropic medications used to treat clients with serious mental illness all affect the central nervous system. They include the anti-anxiety agents, the anti-psychotic agents, the antidepressant agents (Bryant, Knights, & Salerno, 2003; Pickett & Terezhalmy, 2009) and the mood stabilising pharmacotherapy (Weinberg et al., 2008).

Psychotropic drugs affect the central nervous system, which has negative impact on patients' oral health. These agents affect the salivary flow of patients leading to xerostomia or dry mouth. Although statistics repeatedly shows association of these agents to xerostomia, results cannot be reproduced and most of the results are taken from client testimonials or subjective complaints of dry mouth (Scully, 2003; Sreebny & Schwartz, 2008). Constant monitoring of clients suffering from dry mouth is necessary due to increased risk of dental/ root caries, periodontal disease, candidiasis and severe denture retention problems for denture wearers. Clients may also present with speech difficulty, chewing and swallowing as part of behaviour and physiological effect.

1.5.2 Anti-psychotic medications

Anti-psychotic medications are classified into two groups. These are the older group, also called conventional, typical, or first-generation antipsychotics and secondly, the newer, novel, second generation or atypical antipsychotics (Weinberg et al., 2008).

Typical antipsychotic agents such as haloperidol and chlorpromazine have been the treatment of choice for over 50 years due to the efficacy in treating positive symptoms of psychoses such as hallucinations, delusions, paranoia and suspiciousness (Weinberg et al., 2008). Most typical antipsychotic medications bind with dopamine receptors, and are dopamine (D_2) antagonists. However, these agents also act as antagonists at muscarinic, histamine and alpha1-adrenergic receptors causing other health problems such as constipation, blurred vision, tachycardia, sexual dysfunction and urinary retention (Weinberg et al., 2008). In particular, they affect oral health by causing dry mouth, as well as drowsiness, postural hypotension, dystonia or abnormal contraction of muscle (specific issues relating to the treatment of oral pathology include torticollis, or twisting of the head into unnatural positions, as well as spasm of the masticatory muscles, and laryngeal

spasm) and tremors that could make it impossible for clients to sit for oral examination and prophylactic treatments (Bryant et al., 2003; Haveles, 1997; Weinberg et al., 2008).

The second generation antipsychotics have in many cases replaced the conventional/typical agents. The drugs in this class display diverse activities such as partial activation of dopamine D_2 receptors as well as activity at serotonin ($5HT_1$ and $5HT_2$) receptors, but continue to have many side effects (Bryant et al., 2003; Downie et al., 1995; Galbraith, Bullock, & Manias, 1994; Hulisz, 2005; Pinnell, 1996; Rai, 2008; Scully, 2003; Sreebny & Schwartz, 2008; Weinberg et al., 2008). Apart from sedation and orthostatic hypotension, akinesia or Parkinson-like lack of movement (Lane, R., Baldwin, & Preskorn, 1995; Moses, 2008; Neal, 2005; Weinberg et al., 2008), dystonia (Scully, 2003), acute akathisia or the patient's sense to keep moving and swaying (Weinberg et al., 2008) and irreversible tardive dyskinesia (Stiefel et al., 1990) are commonly identified. Tardive dyskinesia is irreversible, frequently characterized by constant tongue rolling, lip smacking, abnormal movement of the jaw laterally, chewing movement, blinking, rocking back and forth and facial muscle movement (Scully, 2003; Weinberg et al., 2008).

Dental management of patients with oral dyskinesias and tardive dyskinesia is difficult due to constant movement or their inability to keep still (Scully, 2003). Oral dyskinesia could also result in 'bruxism', broken teeth, tongue trauma and ulcerations (Weinberg et al., 2008).

Atypical antipsychotic agents, which are currently the first line of treatment of schizophrenia, have additional adverse effects that impart on oral health. These include weight gain (Bryant et al., 2003; Scully, 2003), diabetes mellitus, increased serum lipid levels, daytime sedation and cardiac problems (Weinberg et al., 2008). Clients on these medications need regular monitoring for increased risk of caries including root caries, periodontal disease and oral candidiasis (Ciancio, 2004; Hulisz, 2005; Rai, 2008; Sreebny & Schwartz, 2008; Weinberg et al., 2008).

1.5.3 Antidepressant agents

Antidepressants are drugs administered to increase the concentration of noradrenaline and/or serotonin level in neurons. These agents are classified into three groups according to their specific mechanism of actions (Bryant et al., 2003; Weinberg et al., 2008). Monoamine oxidase inhibitors or MAOIs block the action of monoamine oxidase enzymes, which are responsible for metabolism of monoamines such as tyramine, dopamine, noradrenaline and serotonin in the synaptic clefts between neurons. Therefore, MAOIs increase synaptic levels of these neurotransmitters, and subsequent activation of post synaptic receptors (Weinberg et al., 2008). This group of drugs used to be the most widely administered antidepressant agent but its popularity waned due to its adverse effect namely: agitation, tremors, insomnia, postural hypotension, headache, dry mouth (Bryant et al., 2003; Hanson, Venturelli, & Fleckenstein, 2004), weight gain and sexual dysfunction (Weinberg et al., 2008).

The tricyclic antidepressants inhibit the reuptake of noradrenaline and serotonin in the synaptic clefts between neurons, and thus increase levels available for postsynaptic receptor signalling. The

effect is an improvement in symptoms of depression (Weinberg et al., 2008). Side effects include sedation, xerostomia (diminished saliva), constipation, tachycardia, urinary retention, sexual dysfunction, blurred vision, weight gain and hypotension (Tiziani, 2003).

The more recent selective serotonin reuptake inhibitors (SSRIs) act to maintain normal level of serotonin in the synaptic cleft by inhibiting serotonin reuptake into neuronal vesicles. They achieve this by blocking the site for serotonin reuptake on the presynaptic neuron without affecting the reuptake of noradrenaline or other neurotransmitter amines (Tiziani, 2003). Although SSRIs have no affinity to other receptors, adverse affects include gastrointestinal discomfort such as diarrhoea and vomiting, nervousness, headache, reduced appetite, sexual dysfunction and weight loss (Scully, 2003; Weinberg et al., 2008). In relation to oral health, monitoring of xerostomia or dry mouth is important due to the elevated risk to caries and periodontal disease (Downie et al., 1995; Weinberg et al., 2008).

1.5.4 Treatment of bipolar disorder

Bipolar disorder (BPD) was formerly known as manic-depression (Weinberg et al., 2008). BPD is characterized by manic episode of abnormally elevated or irritable mood, aggressiveness, happy, euphoric, impulsive behaviour, decreased sleep, increased activity and grandiosity followed by depressive episodes of sadness, low mood, low self-esteem, disturbances in sleep and appetite or mixed episodes over a period of one week (Weinberg et al., 2008). Lithium is the drug of choice in anti-manic pharmacotherapy (Friedlander, A & Birch, 1990; Haveles, 1997; Weinberg et al., 2008). In Australia, treatment for more complex variations of BPD (e.g. acute mania or rapid cycling, where there are four or more episodes a year) involves the use of antipsychotic drugs as well as lithium. Where lithium is not tolerated or ineffective, the antiepileptic drugs valproate and carbamazepine (either alone or in combination) are used as mood stabilisers. They may also be used to complement lithium in some instances.

The adverse effects of lithium include cardiac arrhythmias, fine hand tremor, polydypsia, polyuria, dizziness, drowsiness, vertigo, epigastric discomfort, tongue movements, xerostomia, metallic taste (Bryant et al., 2003), dry skin, hypothyroidism (Downie et al., 1995), diarrhoea and neutrophilia (Weinberg et al., 2008).

In treating patients with BPD, dental operators should be aware of the effects of xerostomia and monitor for caries, periodontal disease, and candidiasis (Weinberg et al., 2008).

1.5.5 Anti anxiety agents

Antianxiety agents or anxiolytic agents reduce excessive feelings of anxiety characterized by apprehension (Bryant et al., 2003; Weinberg et al., 2008), fear, panic, profuse sweating, trembling, tremor, headache, dizziness, restlessness, palpitations, insomnia, shortness of breath, abdominal pain and tachycardia (Weinberg et al., 2008). These drugs reduce the physiological responses and work as sedatives and hypnotics (Bryant et al., 2003). Benzodiazepines are rapid acting and

effective for treatment of generalized anxiety disorder (Bryant et al., 2003; Weinberg et al., 2008). These are used as sedatives because of their tranquilizing properties, as hypnotics because they induce sleep, and also as muscle relaxants and anticonvulsants (Weinberg et al., 2008). Short acting, rapid onset anxiolytics are commonly prescribed by dentists for anxiety and dental phobia because of their sedative efficacy (Weinberg et al., 2008). Weinberg (2008) includes sedation, drowsiness, respiratory depression and xerostomia, as major side effects, which warrant monitoring of patients.

1.5.6 Summary of major side effects of psychotropic medication on oral health

Xerostomia (lack of saliva causing dry mouth) can lead to increased plaque, calculus formation, dental caries, periodontal disease, enamel erosion, oral candidiasis and perleche (Page & Somerville-Brown, 2007). Australian prescriber guidelines indicate that most antidepressants cause xerostomia, with trycyclic antidepressants and selective serotonin reuptake inhibitors having a major impact on oral health as a result of prolonged diminished salivary function (Page & Somerville-Brown, 2007). Conversely, while the antipsychotic clozapine exhibits mostly anticholinergic effects, its cholinergic agonism, in some organs, results in sialorrhoea or hypersalivation which can lead to dribbling, face soreness and aspiration pneumonia. The potential impact of methadone on oral health is regularly reported within the literature (Page & Somerville-Brown, 2007). Excessive dental damage is associated with bruxism (excursive movement of the jaw with grinding of the teeth), an adverse effect arising from psychotropic medication (Page & Somerville-Brown, 2007). Studies have indicated that only a very small percentage of mental health clients have any understanding of dental caries and conditions such as atypical odontalgia, tardive diskinesia, temperomandibular joint disorders and dysphagia that can be the impact of many common mental health medications (Tang et al., 2004).

1.6 Access to services

The increasing incidence of mental health issues in the community creates an enormous demand on primary health services. Health policy in Australia and internationally focuses on ensuring that mental health clients receive appropriate care, support, treatment and follow up (Griffiths et al., 2000). In any setting, mental health clients face many challenges in accessing services but in the rural context, consumers are further disadvantaged and marginalised by the lack of appropriate public health infrastructure, lack of access to primary health services and issues of confidentiality and stigma associated with living in a rural environment (Kenny, Kidd, Tuena, Jarvis, & Roberston, 2006). The main providers of mental health services in rural areas include GPs, community mental health nurses and workers, occupational therapists, social workers, dieticians, psychologists and psychiatrists (Griffiths et al., 2000).

Many studies have found that access to dental treatment is a major issue affecting Australians oral health (Ellershaw, 2006; Hardford et al., 2004; Stewart et al., 1998). People with a low

socioeconomic status (SES) are the least likely to visit a dentist. Hardford, Ellershaw & Stewart (2004) found in a study of 7312 Australian residents in the lowest income group, their last dental visit was five years ago. In this group, they were 1.7 times more likely to visit a dentist for a problem rather than a check-up. The study identified the costs of dental treatment as a major barrier and the fact that dental treatment is not rebated on Medicare (Schwarz, 2006). Public waiting lists for dental services in some areas can be up to five years (Schwarz, 2006).

Geographic location impinges on individual's access to dental care. People living in remote locations have a higher DMF (decayed, missing, filled teeth) score than people who reside in metropolitan areas (Curtis, Evans, Sbaraini, & Schwarz, 2007). People residing in rural areas have less frequent checkups and less preventive treatment (Schwarz, 2006). Studies have indicated that this is due to the indirect costs associated with treatment e.g. travel (Curtis et al., 2007). Significantly, there are less dentists in rural areas compared to metro areas and the availability of an oral specialist in rural areas is very low (Stewart et al., 1998).

1.7 Attempts to improve oral health in mental health clients

The 'Dental as Anything' program was designed to reach mental health clients who had poor access to services. Mental health workers were concerned about client's oral health and their reluctance to attend dental appointments. The 'Dental as Anything' program provides weekly, two hour sessions through rotating venues to psychiatric disability patients. They have developed strategies to address the multiple barriers the population group faces such as; assertive outreach, health promotion which includes oral hygiene instructions to patients who are capable of comprehending the information , cross-team collaboration, efficient, flexible and sensitive clinical care, a block funding model which guarantees a fee-free service and peer modelling. Its success is largely due to collaboration of dental, mental health and administration teams. It is argued that the program has resulted in dental phobias being overcome as clients and mental health staff becoming more knowledgeable about oral health (Burchell et al, 2006).

It is claimed that programs that have included mental health case workers in oral health care have been successful and have resulted in clients feeling less fearful. Programs that have been designed to include peer support have reported reduced anxiety amongst mental health clients (Chalmers, Kingsford Smith, & Carter, 1998).

A study in Kansas City (USA) identified the benefits of health promotion in enhancing the oral health of people with psychiatric disabilities (Almomani et al., 2006). Forty two individuals, who participated in oral health education, were given treatment reminder systems and were provided mechanical toothbrushes (Almomani et al., 2006). A statistically significant improvement was recorded.

Sheiham's *et al* (2000) research suggests that oral health programs are often implemented in isolation from other health programs which can often lead to conflicting messages.

A Medicare schedule for dental services for people with a chronic medical condition was introduced on the 1st of November, 2008. Eligible clients included those with mental health issues. Referrals to a dental professional could be provided by a general practitioner. In this program the client could receive $4,250 of Medicare benefits for dental services over two calendar years. This program was cancelled due to limited uptake of the program, which was believed to have resulted from a lack of advertising and professionals being unaware that it was available (Department of Health and Ageing, 2009).

1.8 Educating health professionals

Educating all health professionals that interact with patients with mental illness is important, particularly those of the dental profession. According to the American Dental Association, the numerous preventative programs available for people with special needs are sufficient, however dental professionals must be made well aware of these programs and convey this information abundantly to the patient and his/her carers in order for these programs to be effective (Christensen, 2005). Dentists must be educated in personal skills for interaction with special needs patients (Cumella et al., 2000). Creating a good rapport with clients with mental illnesses is fundamental (Cumella et al., 2000). Stigmatization and disinterest can be sensed by these people and needs to be addressed by health professionals (Faulks & Hennequin, 2000). It has been found that people with mental disability, experience significant barriers preventing them from accessing physical health care. Combined with a lack of social skills and the stigma associated with mental illness this results in them receiving minimal and limited treatment (Phelan, Stradins, & Morrison, 2001b) It is important for mental health professionals to be made aware of the importance of oral health care in order for oral health to be properly incorporated in a mentally disabled clients program (Tang et al., 2004).

Fear of treatment is a major issue in regards to dental treatment (Cumella et al., 2000). Dental professionals must be aware of the possibility that people with a mental illness may have increased anxiety during the appointment. Controlling these situations and reducing anxiety can be achieved by education in behavioural management. It is possible that arranging regular visits by dental care personnel along with a multidisciplinary special care program would provide the best outcome for the client, rather than waiting for the client to make an appointment (Tang et al., 2004). The research program Dental as Anything is a promotional and an outreach program made successful by the integrated care of the dental, mental and administration team (Burchell et al., 2006; Lewis et al., 2001). Hence it is seen as fundamental that all health professionals begin to work in co-ordination with one another; ensuring the best health promotion and services to patients.

2. Rationale, project aim and design

2.1 Our experience in a rural/regional context

Anecdotally, our experience of working in a major rural region in North Central Victoria reflects the international literature. That is, mental health clients have poor oral health outcomes and face many barriers to accessing appropriate services. A small survey conducted by the community mental health team from Bendigo Health, and completed by mental health clients of this service indicated that only ten percent of clients had accessed dental services on an annual basis in the previous five years. Sixty percent of clients indicated that their dental hygiene could be improved. Forty percent of clients were currently experiencing some degree of dental pain. Although the sample size of this local study was small, the findings are generally reflective of those reported elsewhere. In our region, case workers have indicated that oral health and mental health attitudes and knowledge amongst mental health clients, general practitioners, community mental health nurses and workers, allied health professionals and dental professionals could be significantly improved. With the establishment of the first Australian, rurally located dental school in Bendigo, Victoria we believe that we have the expertise to make a significant contribution, through partnership with the local community, to the improved oral health status of mental health clients in our rural/regional location.

2.2 Aim

The overall aim of the project is to improve quality of life for rural mental health clients in the area of oral health by developing resources to improve oral health knowledge and skills of health professionals and mental health consumers.

2.3 Our project priorities

In the funding submission, it was indicated that the funding provided for this project would be used to achieve the following:

1. The formation of a critical group that will include representatives with expertise in primary health care, Aboriginal and Torres Strait Islander health work, general practice, community mental health, allied health, pharmacy and dental and oral health. The group will include representatives from Bendigo Health, Victorian Mental Illness Awareness Council and Bendigo and Districts Aboriginal Cooperatives.
2. The development of terms of reference and a work plan for the critical group.
3. The development, pilot testing and distribution of a minimum of 300 questionnaires to health professionals and mental health clients. This will include knowledge and attitudes of oral health care as part of holistic care and its linkages to developing and maintaining good oral health.

4. The development of an education/training package on oral health for mental health clients and health professionals. This will be developed in both hard copy and electronic formats suitable for publication on the internet.

5. The production and distribution of bookmarks promoting the internet site and hardcopy education/training material.

6. The convening of a one day workshop attended by mental health clients and health professionals for the purpose of developing a shared understanding of the knowledge and understanding of mental health clients and health professionals in optimising oral health care for mental health clients.

7. Endorsement by the RACGP for the education/training package.

2.4 Summary of project outcomes against the project priorities

Table one outlines the summary of outcomes achieved against project priorities.

Table 1 Summary of outcomes

Key area	Comments
The formation of a critical group that will include representatives with expertise in primary health care, Aboriginal and Torres Strait Islander health work, general practice, community mental health, allied health, pharmacy and dental and oral health. The group will include representatives from Bendigo Health, Victorian Mental Illness Awareness Council and Bendigo and Districts Aboriginal Cooperatives.	Achieved. Members of the critical group listed in section nine.
The development of terms of reference and a work plan for the critical group.	Achieved. See appendices for terms of reference.
The development, pilot testing and distribution of a minimum of 300 questionnaires to health professionals and mental health clients. This will include knowledge and attitudes of oral health care as part of holistic care and its linkages to developing and maintaining good oral health.	Ethics approval given from La Trobe University Human Ethics Committee for the study. 400 questionnaires developed, pilot tested and distributed.
The development of an education/training package on oral health for mental health clients and health professionals. This will be developed in both hard copy and electronic formats suitable for publication on the internet.	Achieved. Currently with web development company.
The production and distribution of bookmarks promoting the internet site and hardcopy education/training material.	Developed. With web development company. Will be distributed as soon as available.

The convening of a one day workshop attended by mental health clients and health professionals for the purpose of developing a shared understanding of the knowledge and understanding of mental health clients and health professionals in optimising oral health care for mental health clients.	Workshop all planned and booked. Will be conducted as soon as material available from web development company.
Endorsement by the RACGP for the education/training package.	All materials have been reviewed by experienced medical practitioners, pharmacists and dental professionals. Once web development and CD production completed by the web company all material will be submitted for RACGP endorsement.

3. The development of the critical group and wider input into the project

3.1 The formation of an action research critical group

3.1.1 The underpinning action research approach.

The overall project was underpinned by action research. Action research is an approach that combines research outcomes and action outcomes. The cyclic model of Kemmis and McTaggert (1988) has been used in this project. In this model, the focus is on planning, acting, observing, reflecting and then planning again for the next cycle. The tenets of action research are based on the following assumptions:

1. That the approach is cyclical. As the process is moved through it involves repeated steps of planning, acting, observing, and reflecting.
2. Informants in the project are involved as equal partners.
3. Critical reflection that focuses on the process and outcomes of each part of each cycle is a feature.
4. The approach must be flexible enough to respond to emerging issues and needs
5. The process takes place gradually and is emergent in nature (Carr & Kemmis, 1986; Kemmis & McTaggart, 1988)

The purpose of the formation of the action research critical group was to bring together 'experts' that could provide different perspectives on the area under consideration, oral health and mental health. The plan for the group was to work together through the planning, acting, observing and reflecting component of the action research model.

3.1.2 Cooperative inquiry

Reflecting the inclusive nature of action research, the group was formed using the principles of cooperative inquiry as described by Reason (1994). Cooperative inquiry emerged from early humanistic psychology that proposed that working together as part of a group facilitates open communication (Maslow, 1968; Rogers, 1961). Heron (1981) was the first to articulate the use of this approach in research and argued that orthodox social science methods are inadequate for an in-depth study of human perceptions and understandings as the process of orthodox research often objectifies the subjects. Heron (1981) claimed that humanistic research is only possible if the participants are considered as self-determining individuals. In this project, there was a strong commitment to ensuring that each participant was of equal status and respected as an expert bringing different perspectives to the project.

Reason (1994, p. 326) argues that in 'cooperative inquiry all those involved in the research are both co-researchers, whose thinking and decision making contribute to generating ideas, designing and managing the project, and drawing the conclusions from the experience, and also co-subjects, participants in the activity being researched'. Ellis and Berger (2001, p. 853) describe the collaborative approach as one where the researcher is a 'central character in the story …making the personal experiences of the researcher the focus of the study'. This approach fitted closely with the philosophical stance that was taken in the early design of the project.

Hence, in this study, all members of the critical group were positioned both as researchers and participants. All participants were fully involved in designing and managing the study and contributed to the ideas and conclusions that were generated.

3.1.3 The development of the critical group

Members of the group were formally invited to participate in the project. The invitation/information sheet provided details of the project and the expectations of the group. The following critical group documents are included as appendices

- Appendix 1: Critical group invitation/ information sheet
- Appendix 2: The terms of reference for the critical reference group
- Appendix 3: The project communication plan
- Appendix 4: Critical group meeting proforma

Confirmation that individuals were interested in being members of the critical group was received and a project resource folder was mailed out to each member. This package offered details of the initial project meeting where the process for involvement was discussed by the group.

3.1.4 The practicalities of establishing the critical group

The project team regarded the recruitment phase in the establishment of the critical group as vital to achieving the outcomes of the project. It was essential to have representation from relevant sectors of health care and mental health consumers functioning in a supportive group dynamic.

Identification of potential members was guided by a purposive, convenience sampling approach focusing on health professionals and mental health consumers. Health professionals that were consulted regarding the project, through the funding application process, were invited to participate. Involvement from dental, nursing, medical, and key stakeholder organisations was attained.

3.1.5 The involvement of mental health consumers in the project

In designing the project, there was a strong commitment to the involvement of mental health consumers as equal partners. Consumer participation has been defined as "any activity done by consumers where they have power or influence on the system and services that affect their lives" (O'Hagen, Pearson, & Lindberg, 2000).

Consumer and carer participation in all aspects of mental health service provision, including research and education, has been enshrined in Australian national mental health policy since 1991. A partnership approach has been encouraged since 2003 (Australian Health Ministers, 1991, 2003; Bland & Epstein 2008). The Australian National Health and Medical Research Council statement and framework for consumer inclusive research was used in this project (National Health and Medical Research Council and Consumer Health Forum of Australia, 2002).

Australian taskforces and reports into mental health care have consistently argued that consumer participation and partnerships are key elements to improving mental health services, consumer experiences of them and health related research (Australian Nursing and Midwifery Council, 2006; Commonwealth Department of Health and Family Services, 1996; Deakin Human Services Australia, 1999; Department of Health and Ageing, 2006; National Health Service, 1999). In this project, we believe that the knowledge, experience and expertise of consumers and carers are important and as valuable as other professional knowledge (Stacey & Herron, 2002). We worked through this project using the assumption that knowledge, experience and expertise of the illness and the system of care provided is not available to professionals without input from the people with lived experience.

The importance of consumer involvement directly related to meeting the aims of the project. The rationale for consumer involvement in the project was three fold; it is a political imperative, ethically correct and involving consumers benefits the research process (Boote, Telford, & Cooper, 2002). In addition, involving consumers in research is said to lead to research of a higher quality with greater clinical relevance (Hanley et al., 2000).

The project team recognised that consumers may highlight important issues which researchers may be unaware of, and which have the potential to widen the scope of health research (Barnes et al., 1988). Being able to access assistance through the consumer advocate at the Victorian Mental Illness Awareness Council was pivotal to successful recruitment. The Victorian Mental Illness Awareness Council contributed a broad representative group and wider knowledge gained from ongoing contact with mental health consumers. Recognition of each member's capacity to contribute to the critical group's activities was important and supported by drawing on the National Health & Medical Research Council framework for working within partnerships (National Health and Medical Research Council and Consumer Health Forum of Australia, 2002).

3.1.6 Ensuring true consumer participation

In developing our collaborative process we have been cognisant that in many cases, in other projects, genuine consumer participation has not been achieved (Bland & Epstein, 2008).

In this project, accountability to consumer participation and partnership was achieved in a number of ways. Representation and collaborative relationships were key concepts. The whole process was guided by the nine principles of sustainable partnerships outlined in the NHMRC Statement on Community and Consumer Participation in Research (National Health and Medical Research Council and Consumer Health Forum of Australia, 2002). The project group worked with the Victorian Mental Illness Awareness Council (VMIAC) and the Bendigo Health consumer consultant in the initial development of the project. Consumer recruitment was managed through the regional VMIAC representative. The VMIAC representative worked closely with all members of the project team so that any identified issues could be dealt with in a timely manner.

It has been important to achieve a diversity of consumer experience and representation and this process has been successfully managed in collaboration with VMIAC. The number of consumer representatives reflects the commitment of all project members to genuine collaboration. We believed that having a relatively large group of consumers was important to enable consumers to be able to represent their views, and to have a critical mass within a group of health professionals. Criticisms of consumer participation initiatives include lack of representation, tokenistic payments and lack of policies to support the involvement of consumers (Browne & Hemsley, 2008; Ryan & Bamber, 2002). The consumer's involved in the project were renumerated at a level equal with all other critical group members. The use of a peak consumer organisation and a local consumer consultant as well as a representative group of consumers enabled the consumer perspective, knowledge and expertise to be included on an equal footing to other groups.

Consideration was given to our consumers who have not been involved in research before. Clear language was used and time taken to explain all aspects of the project and requested tasks. Consumers and non consumers worked in small groups so that each person was working with another with more education and research experience. However, it was not within the remit of this project for critical group members to learn high level research skills. A management group of academic researchers managed this aspect of the project.

An open dialogue was encouraged so that consumers felt that they were able to put forward their view and importantly, not feel overwhelmed by the academic nature of the project. Meetings were digitally recorded to facilitate everyone's involvement and time was provided to ensure everyone was clear on what was required of them. Critical group members were able to listen to the meeting recordings or read them after the meeting had taken place. This also facilitated reflection to occur for people who were unable to make a meeting.

The importance of having a representative consumer group was demonstrated in the development of educational resources. All aspects of the resources were discussed, reviewed and tested before the final product was achieved.

Wider consumer consultation occurred through VMIAC involvement and a process was developed to ensure contact with a wide range of consumers. Importantly, broader rural and regional consumers were represented. The steps that were taken in achieving a genuine participation and partnership were recorded for the duration of the project. In other research contexts, establishing and maintaining interest has been a barrier to consumer involvement (Tobin, Chen, & Leathley, 2002). This project was able to sustain a level of interest and commitment to the process. VMIAC have indicated that this is a unique project due to the commitment of genuine collaboration. The goodwill that has been achieved provides a solid foundation for our further work.

3.1.7 The challenges in enacting true consumer participation

The process of recruiting consumers proved time intensive as it was important to involve mental health consumers who would be able to meet the requirements of critical group membership. By far the most challenging stage of establishing the critical group was the formal engagement of mental health consumers. In the development of the project, the concept of all members of the critical group being equally valued for their contributions was made clear; however, facilitating this from a contractual perspective was not without difficulty. To ensure that each consumer clearly understood the contract they were signing required one to one support, with key information revisited several times. Whilst delaying the commencement of their involvement the importance of this process could not be undervalued as it was vital for each individual to be clear and comfortable with signing the contract. While the project sought to enact an equal partnership with all members of the multidisciplinary team, it became apparent early on that institutional arrangements for consumer participation were very limited (Browne & Hemsley, 2008; Happell & Roper, 2007; Kidd, 2005; Ryan & Bamber, 2002). The lack of clear institutional arrangements and policies for consumer involvement is not unusual and has been consistently reported in the literature (Ryan & Bamber, 2002). While policy directives aim to ensure that consumer participation occurs at all levels of the mental health service system, including research and education, there is scant infrastructure to support sustainable capacity building arrangements.

Development of contracts that ensured that the consumers were accurately identifiable by the universities financial department created conflict as the pay rate for a consumer differed from the pay rate identified in the funding for the project. If the consumers were employed at the identified consumer rate, they would receive half the remuneration in comparison to other members of the critical group. However, given that the project was built on a philosophy of equality as supported by the National Health and Medical Research Council framework for consumer inclusive research (National Health and Medical Research Council and Consumer Health Forum of Australia, 2002) it

was necessary to work with the university financial services and human resource areas to ensure that the consumers received equal reimbursement in a manner that was transparent.

Additional consideration to the financial circumstances of the mental health consumers was necessary, in order to ensure that their payment schedule would not interfere with existing eligibility for government financial support payments. It may be argued that this circumstance was a barrier for consumer involvement, however, a series of coordinated discussions involving the project worker, the mental health consumer and a representative from the Government agency (Centrelink) ensured that each consumer would not be financially disadvantaged as a result of their participation in the project.

All project members have gained a greater awareness of the time involved in establishing true consumer partnerships. The level of attention to financial management remained high for the duration of the project as each of the mental health consumers required assistance with completion and submission of time sheets to ensure prompt reimbursement. Quantifying the time spent on critical group activities was key, given attendance at scheduled meetings was not always possible.

In the formative stage, it became apparent that coordinating the members of the critical group to attend meetings would be difficult. Existing professional commitments, access to transport and state of well being were identified as influencing the availability of members to attend. Rather than conceding to these difficulties, strategies to negate this were discussed at the second critical group meeting. Having a meeting schedule set for the entirety of the project, meeting at the same venue, rotating the day that meetings were held and consistently meeting at the same time of the morning were all identified as suitable to promote attendance. In the event that members could not attend meetings, contributions made via email and telephone contact were identified as additional ways to contribute to the function of the group.

Transport for consumers is always an issue, particularly in regional and rural areas. In this project the use of a peak consumer organisation and consultants ensured that transport was able to be organised and did not preclude people without transport from being involved.

Holding a discussion with consumers about dental experiences, while in the presence of oral health professionals, was identified as a sensitive issue and a potential barrier to participation for consumers. As a result, two focus groups, one with consumers only and the other with clinicians only were conducted.

3.1.8 Establishing the context for participation

At the initial critical group meeting detailed discussion occurred around group processes and group function.

The group reached consensus on their role as being to:

a) Work together to develop a shared understanding of ways in which oral health and mental health can be maximised in the rural/regional context.

b) Develop a questionnaire for distribution to health professionals (nurses, mental health workers, allied health staff, medical practitioners and dental professionals) seeking their attitudes and knowledge related to mental health and oral health. Additionally, their views will be sought on how resources should be developed to enhance knowledge and skill in managing oral health with mental health clients

c) Develop a questionnaire for distribution to mental health consumers and carers seeking their views on oral health and mental health and how knowledge of issues can be strengthened.

d) Reviewing the analysed data and using this data to develop an understanding of issues related to oral health and mental health.

e) As a group, using the action research spiral processes of sourcing information, planning and action to develop resource material designed to strengthen knowledge, skill and understanding of oral health issues as they relate to mental health and oral health.

f) Lead a full day workshop to share the learning's from this project with a wider group of health professionals and consumers and carers.

To support the critical group members with the management of the documentation for the entirety of the project, a resource folder was developed. The folder was divided into five sections; Key Documents, Active Documents, Reference Material, Transcripts and Literature. Necessary information to provide a knowledge base to commence participation in the activities of the critical group was provided in the respective sections of the folder. Key documents included a copy of the RHSET grant application and the La Trobe University Human Research Ethics Form. Reference material included a copy of the communication plan and the terms of reference. The section for literature included three current journal articles relevant to the nature of the project. Members of the group added to the folder throughout the process, effectively maintaining an informative point of reference.

3.2 Undergraduate oral health student involvement

La Trobe University has a School of Dentistry & Oral Health located in Bendigo. We identified the capacity to involve the School's oral health students in the project to strengthen their knowledge of mental health issues. Five Bachelor of Oral Health Science students, Jodi Leversha, Stacey Bracksley, Monica Nasr, Jane Lien and Virginia Contreras assisted with the development of the literature review and they completed a small needs assessment in the area of mental health consumers and oral health. Combining a literature review with community visits, they identified that in health settings oral health is not seen as the responsibility of mental health teams. The students reviewed lifestyle programs offered to mental health consumers and concluded that these programs omit oral health care. The students have developed an education session to include in

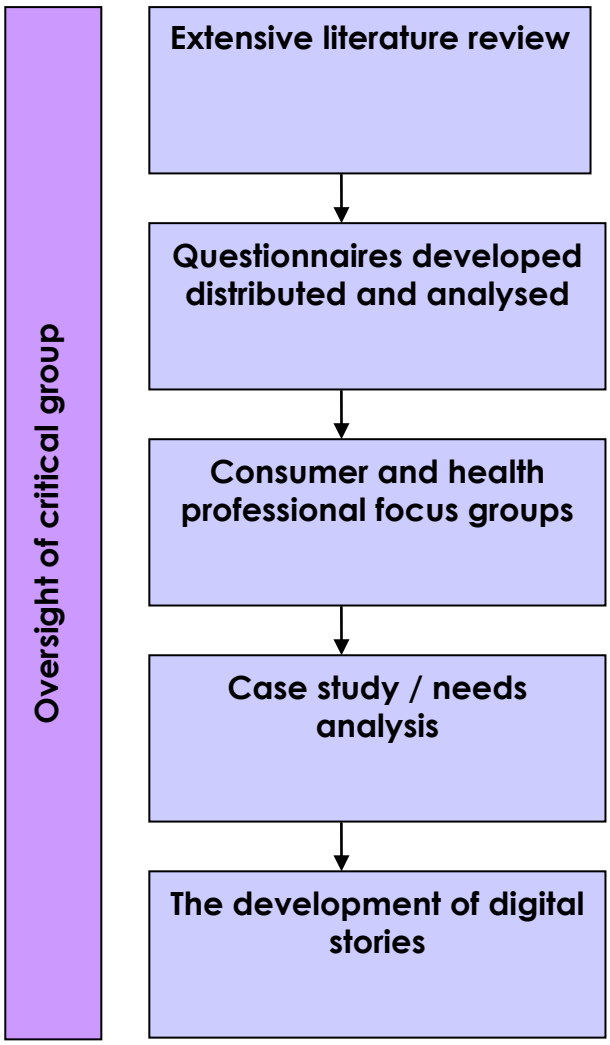
a commonly used lifestyle program. The outcomes from the student work are included in the developed educational package.

4. Evidence based educational development

4.1 Stages of data collection

To meet the aims of the project it was important to develop an evidence base to inform the educational development. Figure one outlines the five major stages of data collection.

Figure 1 The five major stages of data collection



Consistent with the action research focus of the project each stage of data collection was considered by the critical group and formed the basis for discussion and further action planning cycles.

The critical group had in-depth discussions about the most appropriate way to gain consumer feedback as part of the data collection process. Literature was sought on collecting data from mental health consumers. The consumers on the critical group and the VMIAC representative, Ms Liz Carr, provided guidance. The consensus of the group was that response rates were unlikely to be high to a written questionnaire. There is evidence within the literature that issues such as locating people [moving house] and difficulties with completion of written questionnaires can limit participation.

In order to maximise participation of mental health consumers a two stage process occurred. The consumer members of the critical group collected oral stories from mental health clients as part of their day to day interactions. The group then came together and shared these stories, together with their own experience in a focus group situation. This narrative method produced rich data.

One of the members of our critical group had a well developed relationship with a mental health drama group and this group was interested in being involved in the narrative approach to data collection. Three mental health consumers provided digital stories and these were used to glean an insight into the issues faced by mental health clients. A clear process of consent occurred with support from VMIAC and the digital stories are included in the educational material for the project.

4.2 The literature review

As outlined, an extensive literature review was undertaken and is described in section one. Table two provides a summary of the information gained from the literature review.

Table 2 Summary of the literature review

Poor oral health makes a significant contribution to the burden of disease. Studies have indicated that the mainstreaming of psychiatric care has resulted in the responsibility for oral health being placed with mental health clients	(Australian Institute of Health and Welfare, 2008a; National Advisory Committee on Oral Health, 2004)
There is a strong relationship between serious mental illness, advanced dental problems and poor oral health outcomes	(Friedlander, A & Mahler, 2001; Friedlander, AH & Marder, 2002; Kilbourne et al., 2007)
There are a number of issues that mitigate against improved oral health for mental health clients	(Abrahamsson et al., 2002; Ahmad et al., 2007; Almomani et al., 2006; Barnes et al., 1988; British Society for Disability and Oral Health, 2000; Burchell et al., 2006; Cumella et al., 2000; Davies et al., 2000; Ellershaw, 2006; Faulks & Hennequin, 2000; Finlay et al., 2001; Griffiths et al., 2000; Harris & Zwar, 2007; Mirza, Day, & Phelan, 2001b; Moore et al., 1993; National Advisory Committee on Oral Health, 2004; Nocon, 2006; Phelan et al., 2001b; Salsberry et al., 2005; Senate Community Affairs Reference Committee, 1998; Stiefel et al., 1990; Tang et al., 2004)
The impacts of oral health adverse affects from common pharmacology used in psychiatry are consistently identified	(Bryant et al., 2003; Ciancio, 2004; Downie et al., 1995; Ellershaw, 2006; Galbraith et al., 1994; Griffiths et al., 2000; Hanson et al., 2004; Haveles, 1997; Hulisz, 2005; Lane, R. et al., 1995; Moses, 2008; Neal, 2005; Page &

	Somerville-Brown, 2007; Pickett & Terezhalmy, 2009; Pinnell, 1996; Scully, 2003; Sreebny & Schwartz, 2008; Stiefel et al., 1990; Tiziani, 2003; Weinberg et al., 2008)
Access to dental treatment is a major issue for people with mental health problems	(Curtis et al., 2007; Ellershaw, 2006; Hardford et al., 2004; Schwarz, 2006; Stewart et al., 1998)

The completed literature review was considered by the critical group and was used to inform the development of the questionnaire.

4.3 Questionnaire development

Drawing from the literature review and critical group discussion the questionnaire (Appendix 12) went through a number of stages of development and refinement. It was piloted with a group of health professionals and refined according to feedback. The questionnaire was developed as a five point Likert scale to maximise completion.

400 questionnaires were distributed, with 187 returned at the time of writing the final report.

Returned questionnaires were entered into Statistical Package for the Social Sciences (SPSS) and were analysed to produce descriptive statistics.

4.4 Results of questionnaire

4.4.1 Survey respondents

The returned questionnaires were received from a cross section of professionals in the Loddon Mallee region and are outlined in the table below.

Table 3 Survey respondents

Profession		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Dentist/Orthodontist	43	23.0	23.2	23.2
	General Practitioner	41	21.9	22.2	45.4
	Registered Nurse	31	16.6	16.8	62.2
	Allied Health Professional	21	11.2	11.4	73.5
	Dental Nurse	2	1.1	1.1	74.6
	Dental Hygienist/Therapist	12	6.4	6.5	81.1
	Anaesthetist	3	1.6	1.6	82.7
	Dental Prosthetist	3	1.6	1.6	84.3
	Consultant Specialist	11	5.9	5.9	90.3

	Other	18	9.6	9.7	100.0
	Total	185	98.9	100.0	
Missing	System	2	1.1		
Total		187	100.0		

The category of other included the following professions, counsellor, dental practice manager, mental health worker, Psychiatric Disability Rehabilitation Service (PDRS) worker, practice manager, social worker, student nurse and social welfare worker.

75% of respondents indicated that their place of work requires that they have a wide knowledge of mental health problems. 16% indicated that this was not the case in their work place. However, when asked whether or not they were kept informed of advancements in mental health management in their workplace, 38% said they were not and 10% were unsure.

4.4.2 Workplaces

When asked about the physical environment of workplaces and if they catered for individuals with mental health problems, 65% of respondents stated that their workplace was appropriately set up, 17% disagreed and 15% were unsure.

Access to information regarding mental health was available in 58% of respondents' workplaces with 25% stating it was not. 16% of respondents were unsure. 93% of workplaces had access to the Internet.

When asked whether their workplace required them to have a wide knowledge of oral health problems, 62% of respondents' indicated that this requirement was in place with 7% unsure. 30% stated that they were not required to have a wide knowledge of oral health problems. However, only 42% of respondents stated they were kept up to date on oral health knowledge, 11% were unsure and 46% stated they were not well informed. Access to oral health information is readily accessible for 52% of the sample with 12% unsure and 36% saying access was not available.

4.4.3 Professional development statements

A series of questions were asked regarding continuing professional development in the workplace regarding both mental health and oral health.

Continuing professional development geared to oral health is supported by 50% of workplaces in the sample, 12% were unsure and 36% stated it was not supported. Similarly professional development focused on mental health was supported by 57% of workplaces, 17% unsure and 24% did not support professional development focused on mental health.

Survey respondents were asked whether or not they thought a web based resource would be useful for consolidation and/or extension of their knowledge regarding oral health, 79% agreed that it would be a useful tool, 14% were unsure and 6% disagreed. This result reflects those figures that showed that a small number of workplaces did not have access to the internet. Results regarding web based resources for consolidation or extension of mental health knowledge showed that 78% of respondents thought this would be useful, 15% unsure with only 3% disagreeing.

The majority of respondents indicated that a workshop is a productive format in which to enhance professional development (87%), 10% were unsure and only 1% disagreed. 70% of respondents indicated that an information kit format would be useful to improve knowledge and understanding of a particular topic, 21% were unsure and 7% disagreed that this was a useful format.

When asked if participants had engaged in accredited professional development that focused on mental health, 50% indicated they had, 7% were unsure; however, 40% stated they had not participated in any mental health professional development learning. When asked a similar question with regard to accredited professional development that focussed on oral health, 44% indicated they had, 2% were unsure and 51% had not.

4.4.4 Confidence in dealing with mental health issues

A series of nine questions were asked regarding the participant's confidence in dealing with mental health issues.

Current knowledge and understanding of common mental health issues is an area for which 62% of respondents indicated they were confident or very confident, 14% were unsure and 17% were lacking in confidence, with a further 3% stating that they were extremely lacking in confidence. Furthermore, when asked if, without additional education, how confident participants would feel in providing a service for mental health clients, 53% said they were confident and very confident, 18% unsure and 25% were lacking in confidence.

Participants were asked to consider their level of confidence in discussing a diagnosis of a mental health problem with their client. 53% stated they were confident or very confident, 10% were unsure and 31% stated they were lacking in confidence to undertake this task.

When asked about confidence in knowledge regarding services available for individuals experiencing mental health problems there was a distribution of those who were confident in their knowledge (60%), and those who were lacking confidence in their knowledge (22%). The remaining respondents indicated they were unsure.

Respondents were asked to indicate how confident they were in liaising with health care organisations for individuals with mental health problems, 63% said they were confident or very confident, 13% were unsure and 22% were less than confident.

Confidence about current knowledge and understanding of common oral health issues were indicated as being good. 56% of the sample were confident or very confident in their knowledge, 16% were unsure and 22% were lacking in confidence. Respondents were also asked how confident they would be in providing a service for individuals with oral health needs, without further education. 50% stated they were confident or very confident, 16% were unsure and 30% lacked confidence in this area. Furthermore, when asked about confidence in knowledge and understanding of services available for individuals experiencing oral health problems, 55% stated they were confident, 13% were unsure and 27% were lacking in confidence. Liaison with health care organisations for individuals with oral health problems was not an issue for 61% of respondents, 14% were unsure and 21% lacked confidence in this area.

4.4.5 Key issue statements

The final section of questions contained key issue statements regarding oral health and mental health. The following table shows the frequency of responses with the majority response in each category highlighted.

Table 4 Key issue statements

Question	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Mental health clients face significant issues around declining oral health and poor access to dental services	0	4	27	**78**	76
The impact of the adverse oral health effects that arise from common pharmacology used in psychiatry is not adequately addressed in the provision of mental health care.	1	5	54	**71**	53
The impact of poor oral health among mental health clients contributes to low self esteem and the level of social acceptance.	1	8	24	**89**	63
Dental professionals are reticent to provide dental care to mental health clients.	9	45	**69**	47	11
Dental fear and anxiety of clients is one of the most stress provoking management issues for dental professionals.	1	12	59	**71**	39
Oral health promotion information to mental health clients is adequate in the rural context.	36	**69**	64	13	2
Education and training for general practitioners and health care professionals regarding oral health issues should be provided.	1	1	12	**103**	67

Training for dental professions in managing mental health clients should be a priority.	1	7	42	**94**	38
Formal pathways for communication and referral between health care workers and dental services should be established.	0	3	19	**104**	58
My profession enables access for oral health care for mental health clients.	13	28	47	**78**	16
I have a role in initiating oral health treatments for mental health clients.	13	31	23	**97**	21

A number of comments were written on the questionnaires

> *In my experience sometimes acute and chronic oral health problems are addressed for the first time when patients admitted to psychiatric ward – difficult for them accessing dentistry independently (Psychiatric Registrar)*
>
> *More education always helpful*
>
> *Psychiatrists can't refer. I ask GP to refer, if in fact patients have a GP. Otherwise refer to emergency dental resources*
>
> *I cannot access dental services for my patients with or without mental health problems at the moment. How is up skilling my knowledge going to "improve quality of life for mental health clients in the area of oral health"?. We don't need surveys; we need services to refer to.*
>
> *We don't need another study. Survey the community. Even better have a look at their teeth.*

4.4.6 Cross tabulations

Using the cross tabulation function of SPSS, queries were run allowing a cross profession comparison for questionnaire responses. The tables show the distribution of frequency of responses according to the professions with the top three response categories shaded. Oral or dental health professions include dentists, orthodontists, dental nurses, dental hygienists/therapists and dental prosthetists. Other health professions include general practitioners, registered nurses, allied health professionals, anaesthetists, consultant specialists and other.

From the responses given within each profession it appears that most of those professionals associated with medicine, allied health and nursing (general practitioners, registered nurses, consultant specialists, allied health professionals) are required to have a wide mental health knowledge (88%). Of those in the dental professions (dentists, orthodontists, prosthetists, dental nurses, dental hygienists, dental therapist) 51% indicated that they were not required or unsure if they were required to have a wide knowledge in this area. Dental Hygienists/Therapists were more likely to have knowledge of mental health with 54% of this particular group stating they were required to have this knowledge. Likewise access to information regarding mental health appears to be readily available for GPs and RNs (80%) but not so for those in the dental professions (50%).

Furthermore, while most of those in medical related professions stated they were kept informed of advancements in mental health management (95%) and attend continuing professional development (89%), only 8% of those in the dental professions indicated they were kept informed of mental health management. Only 18% indicated they were encouraged to undertake continuing professional development in the area of mental health.

Table 5 Distribution of frequency: My place of work requires me to have a wide knowledge of mental health problems.

	Profession Category	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Oral health / Dental Professions	**Dentist/Orthodontist**	3	11	7	**19**	3
	Dental Nurse	0	1	1	0	0
	Dental Hygienists/Therapists	1	2	2	**6**	0
	Dental Prosthetist	0	2	0	1	0
Medical Professions	**General Practitioner**	0	0	0	10	**31**
	Registered Nurse	0	0	0	2	**29**
	Allied health Professional	2	5	1	2	**11**
	Anaesthetist	0	1	0	2	0
	Consultant Specialist	0	1	1	1	**8**
	Other	0	2	1	6	**9**

Table 6 Distribution of frequency: Access to information regarding mental health is readily accessible at my workplace

	Profession Category	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Oral health / Dental Professions	Dentist/Orthodontist	4	**19**	**11**	8	1
	Dental Nurse	0	1	0	0	1
	Dental Hygienists/Therapists	0	**4**	**4**	3	0
	Dental Prosthetist	1	1	0	1	0
Medical Professions	General Practitioner	1	3	7	**16**	14
	Registered Nurse	1	1	1	10	**18**
	Allied health Professional	1	5	1	6	**7**
	Anaesthetist	0	1	1	1	0
	Consultant Specialist	1	1	2	2	**5**
	Other	0	1	2	6	**9**

Table 7 Distribution of Frequency: At my place of work, I am informed of advancements in mental health management

	Profession Category	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Oral health / Dental Professions	Dentist/Orthodontist	6	**27**	5	5	0
	Dental Nurse	0	1	1	0	0
	Dental Hygienists/Therapists	1	**9**	1	0	0
	Dental Prosthetist	0	**3**	0	0	0
Medical Professions	General Practitioner	0	4	5	**20**	**12**
	Registered Nurse	1	2	1	**12**	**15**
	Allied health Professional	4	3	2	**4**	**7**
	Anaesthetist	1	1	1	0	0
	Consultant Specialist	1	1	1	**3**	**5**
	Other	0	5	2	**9**	2

Table 8 Continuing Professional Development focused on mental health is supported in my workplace

	Profession Category	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Oral health / Dental Professions	**Dentist/Orthodontist**	6	**17**	13	3	3
	Dental Nurse	0	0	1	1	0
	Dental Hygienists/Therapists	2	2	3	**4**	0
	Dental Prosthetist	0	1	**2**	0	0
Medical Professions	**General Practitioner**	0	1	3	**26**	10
	Registered Nurse	1	1	1	10	**18**
	Allied health Professional	2	3	5	4	**7**
	Anaesthetist	0	**2**	1	0	0
	Consultant Specialist	2	2	1	**3**	**3**
	Other	1	0	3	2	**12**

The physical environment of the majority of workplaces was deemed appropriate to cater for individuals with mental health problems (67%). Of those that disagreed or strongly disagreed most were from the dental professions. 16% of respondents overall indicated they were unsure.

Unsurprisingly those in the dental professions indicated that they were required to have a wide knowledge of oral health problems (96%), only 65% of GPs, 20% of RNs and 40% of allied health professionals stated they were required to maintain their knowledge of oral health. Similarly most dental professionals were both kept informed (88%) and had good access to information (88%) regarding oral health; and were encouraged to attend continuing professional development (91%). Those in the fields of medicine including GPs, RNs, allied health professionals and consultants/specialists did not get regular updates (72%) readily accessible information (58%) or were encouraged to attend continuing professional development regarding oral health (35 %).

Few of those respondents in oral health professions (11%) had engaged in accredited professional development that focused on mental health as opposed to 81% of GPs and RNs who had. The reverse was true of accredited professional development regarding oral health with (93%) of oral health professionals indicating they had, and 24% of GPs, RNs and Allied Health professionals stating they had undertaken some professional development of this kind.

Table 9 My place of work requires me to have a wide knowledge of oral health problems

	Profession Category	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Oral health / Dental Professions	Dentist/Orthodontist	0	0	0	9	**34**
	Dental Nurse	0	1	0	1	0
	Dental Hygienists/Therapists	1	0	0	1	**10**
	Dental Prosthetist	0	0	0	**2**	1
Medical Professions	General Practitioner	1	8	5	**23**	4
	Registered Nurse	7	**14**	3	3	3
	Allied health Professional	3	**8**	1	1	7
	Anaesthetist	0	1	0	2	0
	Consultant Specialist	**3**	3	2	2	1
	Other	0	**6**	2	**6**	4

Table 10 At my place of work I am informed of advancements in oral health management

	Profession Category	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Oral health / Dental Professions	Dentist/Orthodontist	1	2	1	15	**24**
	Dental Nurse	0	1	0	0	1
	Dental Hygienists/Therapists	1	0	0	2	**9**
	Dental Prosthetist	0	1	0	1	1
Medical Professions	General Practitioner	7	**15**	14	3	2
	Registered Nurse	12	**14**	1	1	2
	Allied health Professional	**8**	4	0	3	5
	Anaesthetist	1	1	1	0	0
	Consultant Specialist	**5**	4	1	0	1
	Other	1	**7**	3	4	3

Table 11 Access to information regarding oral health is readily accessible at my workplace

	Profession Category	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Oral health / Dental Professions	**Dentist/Orthodontist**	0	3	2	12	**26**
	Dental Nurse	0	0	0	1	1
	Dental Hygienists/Therapists	1	0	0	2	**9**
	Dental Prosthetist	0	1	0	1	1
Medical Professions	**General Practitioner**	5	11	11	**12**	2
	Registered Nurse	**12**	**12**	3	1	3
	Allied health Professional	**6**	2	1	5	**6**
	Anaesthetist	0	0	2	1	0
	Consultant Specialist	**6**	2	1	1	1
	Other	1	5	2	**6**	4

Clearly GPs, RNs and allied health professionals are more confident in their knowledge and understanding of common mental health issues (96%). 45% of dental professionals, however, stated they lacked confidence in this area. These results are reflected in the response to the question "Without additional education, how confident are you in providing a service for individuals with mental health needs?" Most medial health professionals indicated they were confident or very confident (80%). Oral health professionals stated they either lacked confidence in this area (43%) or were unsure (28%). This was also the case with discussing a diagnosis of mental health problems, with 66% of oral health professionals lacking confidence. 61% of the same group were uncertain of their knowledge and understanding of services available for mental health clients; and a similar number were lacking confidence or unsure (53%) of liaising with health care organisations for mental health clients.

Conversely, once again, GPs and RNs were less likely to be confident regarding knowledge of common oral health issues (37%), providing a service for those with oral health needs (51%) understanding the services available for those with oral health needs (44%) and liaising with other organisations for those with oral health needs (34%).

Health professionals agreed that the impact of adverse oral health effects that arise from common pharmacology used in psychiatry is not adequately addressed in the provision of mental health care. Those professions that were unsure of this statement were GPs (31%), dental hygienists/therapists (63%) and consultant specialists (63%).

Oral health professionals were divided about whether they thought dental professionals were reticent in providing dental care to mental health clients with (31%) agreeing and (29%)

disagreeing. GP's were more likely to agree than disagree, however, a significant number of professionals stated they were unsure on this point (38%).

Most professionals agreed that dental fear and anxiety is one of the most stress provoking management issues for dental professionals with GPs (43%) and RNs (41%) more likely to be unsure of this statement.

It was generally agreed by all that oral health promotion information is inadequate in the rural context (56%) and also that education and training for GPs and health care professionals regarding oral health issues should be provided (92%). The professions were also in accordance and agreed that training for dental professions in managing mental health clients should be a priority. A small number of dentists (6%) and allied health professionals (14%) disagreed with this statement.

Nearly all professionals agreed that formal pathways for communication and referral between health care workers and dental services should be established (87%). Oral health professionals stated that their profession enabled access for oral health care for mental health clients, however, those in medical professions were more likely to disagree (30%) or were unsure (29%) of this statement.

At least some of most of the categories of health professionals agreed that they had a role in initiating oral health treatments for mental health clients, however, there were still a significant number in each category that disagreed they had a role. Dentists/orthodontists (16%), GPs (14%), RNs (29%), allied health professionals (33%), dental hygienists/therapists (36%), consultant/specialists (27%) and others (17%). Overall 12% of professionals stated they were unsure.

Table 12 I have a role in initiating oral health treatments for mental health clients

	Profession Category	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Oral health / Dental Professions	**Dentist/Orthodontist**	1	7	8	**21**	6
	Dental Nurse	0	0	0	1	1
	Dental Hygienists/Therapists	2	2	**3**	**3**	1
	Dental Prosthetist	0	1	1	1	0
Medical Professions	**General Practitioner**	1	5	1	**31**	3
	Registered Nurse	5	4	2	**15**	5
	Allied health Professional	2	5	1	**11**	2
	Anaesthetist	1	**2**	0	0	0
	Consultant Specialist	1	2	**4**	**4**	0
	Other	0	3	3	**8**	3

4.5 Focus group data collection

Focus groups are a well-established means of collecting research data and are predominately used to explore attitudes and perceptions about concepts, products services or programs (Asbury, 1995; Kitzinger, 1994; Krueger, 1994; Lane, P., McKenna, Ryan, & Fleming, 2001; Minichiello, Sullivan, Greenwood, & Axford, 1999; Morgan & Krueger, 1993). The aim of focus groups is to capitalize on the 'explicit use of the group interaction' to encourage discussion and interaction that enables an insight into the thinking, language and social reality of participants (Kitzinger, 1994 p.103). Two focus groups were conducted, one with health professionals and one with consumers.

4.6 Focus group findings

Focus group discussions were conducted in two separate groups. One group was with mental health consumers and the second with a variety of health care professionals. A number of issues were raised with respect to oral health and mental health by both groups.

4.6.1 Barriers to Dental Care

A number of barriers to dental care were identified by both consumers and health professionals. From the two discussions held, access to services, communication, clinic associated barriers, dental fear, financing and funding, generational issues, being chastised and myths and misunderstandings were clear themes.

Access issues

It was recognised by health professionals that access issues for all people needing dental care were often affected by seemingly simple things. This was exemplified by comments made within the health professional focus group discussion;

> *Even the public dental system it doesn't accommodate, it doesn't. It's not flexible to accommodate people that have disorganised lives.*
>
> *I think there are structural issues around the practicalities of people actually getting somewhere so transport issues, the ability to drive those sorts of things and then the issues of ringing people up and making appointments confidently having understanding of receptionists at the end of the phone and then the issues of people actually turning up in that environment and feeling welcomed, it's substantial.*

Access to dental services was evident in the discussions of the consumers as they related how sometimes it was necessary to stretch the truth in order to avoid finding themselves in further pain

> *It can be a tricky situation if you have a bit of toothache say at night and the next morning it's eased off. Do you ring the dentist and make an emergency appointment knowing the weekend's coming up that if you get crook in the weekend and you wait till Monday to do it you might wait longer. And they certainly go on when you ring up they'll say is it hurting now or how bad is it hurting? Yeah so I've seen people down the base hospital with weekends roll of up there with severe toothache wanting help you know and they can't seem*

to be able to get pain killers or anything which is you know like Panadeine forte or anything you know they can't seem to sort of get that. So you can really get stuck of a weekend if you're not careful… in a sense because you've it's like you've got to lie and you've got the pain all the time but knowing that if you don't say that you're like to have to wait…Another three years…Make an appointment and wait a lot longer you know? There are key words and if you're in pain they might do something and they might not.

The extension of this line of thought was continued by health professionals as they acknowledged that missing appointments can have dire ramifications for further access to the dental system.

Once appointments have been missed in mainstream services people think oh yeah once I've missed that one… they don't even actually think exactly about going back and so I think that affects their access.

In response to the aforementioned situation, a health care professional focus group member offers a different perspective in suggesting;

Or they'll just get put into the too hard basket by the practitioner then rebooked and rebooked and eventually cancelled and the patient doesn't actually receive the care they need.

The same discussion encompassed the health care system processes and the implications that that may have for consumers as demonstrated by one participant stating;

if a patient doesn't show up for three say if they miss three visits they just get purged they're gone you know there's no more appointments because their care is closed… they have to reapply and come back in again…They have to go back into the waiting list and come back again because their course of care is closed.

Communication issues

Issues with communication were identified as a barrier to dental care by both consumers and health care professionals. The lack of refined interpersonal communication skills was noted.

The issues of ringing people up and making appointments confidently having understanding of receptionists at the end of the phone

So it is the incapacity of the person at the end of the phone who's calling to the public health clinic that they are actually competent in some way to ask those questions despite the fact that they're in or they are potentially are in acute pain as well.

You have to be articulate.

Health professionals identified that potential dental clients who were frustrated by questions and pain were not always conducive to effective communication; '*[they should not] be rude you know… speak nicely to the admin person'*. Communication breakdown also appears to play a part in clients not accessing care in instances that they are unaware of the avenues open to them as demonstrated by a focus group member; '*he wasn't told about that till later until the guy told him about the emergency appointments he might have had three emergency appointments'*. The focus group discussions suggested that similarly, both health professionals and carers are often unaware of schemes available to individuals for which access issues are common problem.

Yeah this is a scheme for people with chronic disease which mental illness falls into that but lots of GPs won't/ don't have people with mental illness on a chronic disease plan it's actually a plan that they don't have it and lots of consumers don't know to ask for it and I don't think case managers are aware of it either…it doesn't tend to be all that well known or that well publicised either.

Clinic associated barriers

Consumers and health professionals recognised that the role of reception in the dental clinic and the quality offered by that area was important to a person's dental experience. Consumers affirmed this by stating '*It's the first point of contact …and if they are really nice to me then that's enough to get me into the into the dentist chair'*. One consumer stated that she would feel so much better if the reception staff even noticed she was nervous and offered simple gestures as positive affirmation. She stated that this would assist in dealing with any feelings of nervousness and anxiety. Consumers related that once they had one negative experience with reception of the dental clinic – it can adversely affect their future attendance

I think too maybe if on the day of your appointment if you weren't well or for some reason you couldn't get there I know with my friend he was hesitant with ringing back because he'd already stuffed them around once or twice with his appointment… I guess that's what we see in our community as well once one person has a bad experience then I guess that just you know spreads like wildfire and just no one I guess bothers you know.

Dental Fear

Dental fear was acknowledged as a major factor in accessing dental services. Clients described what it was like to be affected by dental fear and the impact that it can have on self care; 'Some*times the fear you've got in your self … you can't bring yourself to ring up [the public dental service] to do anything. You just suffer in sort of silence*. Recognising the source of the fear was also encountered by a participant as shown in their insight.

And I think too when I was younger I experienced a lot of pain in the dental chair and that before I sit in that chair I relive that moment every day. I still close my eyes and go back to that room

One consumer shared that her fear was related to the need to have a witness to ensure the dental staff were accountable for their words and actions. '*They're nasty when there's no witness so I like to have one. My partner doesn't have to hold my hand or you know anything like that he is there as my witness'*. It was the opinion of some consumers that there would be benefits if the staff at the dental made small time investments that could address the dental fear of clients.

It would be nice if at the time I mean it would probably help with dental fear if someone who was really anxious to give a nice cup of tea and someone just to hold their hand and say look it's not as bad as you think sweetheart just calm down

Dental fear is clearly an ongoing issue as some consumers discussed coping mechanisms that they employ. Drug therapy, taking a support person as well as shutting their eyes were affirmed by members of the consumer focus group.

Finance and Funding issues

Consumers and health professionals alike recognised the prohibitive effect that finance has on dental care. It was stated in both focus groups that *'The cost of Dental Health now is almost impossible for someone who hasn't got Private Health Insurance'*. This statement was compounded by one person's opinion that ' *there's the huge number of people who slip between that gap of being eligible for Public Care and being able to afford Private Care, there's an awful lot of people that slip into that nowhere man's land.*

Consumers described what it was like to endure financial hardship and face dental costs – however subsidised they might be. The need to prioritise funds to allocate to self care was an issue for all members of the focus group to varying degrees. Comments offered by four individuals highlight the difficulties that support their perspective of finances being a barrier to good oral health.

> *If it's your off pay week sometimes you've got to ask around and get a lend of money $20 or $22 if you're if you have to go to the [public dental service] for treatment or whatever*
>
> *It come up my appointment fell on the day before pay day and I tried real hard to keep that $22 dollars aside but ended up using it I think the day before the appointment was due*
>
> *The barriers were things like being able to afford toothbrushes toothpaste and you know don't even get down to thinking about floss …*
>
> *Yeah that's right it's just too expensive. I mean people can't even afford shampoo you know they just can't afford it. So that was a barrier that came through well and truly.*

There was a great deal of discussion in the health care professional's focus group around the lack of funding for dental services, exemplified by one participant noting; *"at the end of the day they're coming to a public clinic and there's all sorts of problems in that because preventative measures aren't well funded now or paid for".*

Further depth was offered in the following statements.

> *There is a scheme that's being restructured now where people with acute illness, not acute chronic illness were eligible to receive free dental care from Medicare up to $4500.00… That's gone that…Well it is sort of disappearing now …the reason was that it was being abused by dentists and there was poor uptake.*
>
> *The last time that that I enquired they're out of funding at the moment anyway like apparently they funded projects or funded dental public dental welfare comes from [FEDS] and last time I was told by the [Public dental service] that they're out of money. So there is no there is nothing funded except for emergencies at the moment*

One consumer described what it was like for a person affected by funding shortfalls in dentistry

> *I was actually enquiring for a person who had come to the top of the waiting list and got a letter saying you are at the top of the waiting list and because of access issues she couldn't get up to the town where the service is so she*

nominated a dentist in [the place where she lives] to do a private dentist to do the work so we organised the $225 worth of vouchers and she had $225 worth of work done. But she was told that once you get to the top of the waiting list you can have all of the work done and so she was waiting for the dentist to organise for the next $225 voucher and the dentist didn't do anything and she didn't know that she had to do anything and so eventually when she asked me about it I rang up [the public dental service] and by that time the money had run out so through all that years of waiting to get to the top of the list she got $225 dollars done and that's it. Now she's back to she can only get emergency care

Generational barriers

It was pointed out that sometimes poor oral health can stem from lack of education when a child. It appears that this applies particularly to the baby boomer generation

You know mum and dad didn't teach us how to clean our teeth properly they just said go do your teeth have you cleaned your teeth and you know yes and one day I was about to do it and I said go and ask dad well how do I clean me teeth you never taught us and how are you supposed to know?

I was just saying yesterday in a family of nine mum and dad never taught us how to clean our teeth we just had to learn ourselves because everything in our family no-one taught you anything you just if you couldn't do it yourself they didn't care

A representative from this same generation also described how her upbringing often prevented her from talking about her oral health needs

I would feel it was a bit funny talking to somebody about my tooth I suppose … maybe it was just the way I was brought up to be kind of prim and proper you know and keep your mouth shut and don't say the wrong thing

Don't rock the boat

…thinking I'm being a nuisance or upsetting somebody or speaking up you know and being brought up you know prim and proper and not being speaking out of turn

Being Chastised

Negative experiences at the dentist clearly have an impact on the future access of clients. This was supported by both consumers and health professionals

I think that dental people are very good at making people feel guilty

a couple of people also felt that because their teeth are in very bad condition then they're too embarrassed to front up because they might get in trouble. They might be told off …For not looking after their teeth or so people can get into a bit of a cycle with this thing as well

When they used to be at the hospital they were shocking the dentist up there they were really horrible people they were nasty

I know dental hygienists who are like plaque Nazi's who really give patients a

very hard difficult time and make them feel guilty even after they've made the effort to come. Overcome that initial embarrassment by sort of connecting with the service and then they get humiliated basically and so I'm not surprised that people don't want to.

One health professional conceded that "*we suggest that what we are seeing is a direct result of their actions*" when often with clients with complicated oral and mental health conditions this is not true.

Myths and Misunderstanding

As with most areas of health, there are sometimes myths and misunderstanding surrounding aspects of health and health care. Clients related some of those issues which because they had been unanswered affected their willingness to undertake aspects of oral, dental and general health care

> *One of the effects of the medication is it causes diabetes. I don't like I know there a multitude of health effects that arise from diabetes and I don't know if that impacts on your oral health care as well*
>
> *I heard that that's so I admit that that's the case and it was suggested to me that mercury can you know people have too much mercury then that can actually cause depression*
>
> *And so it's about having mercury in your mouth*
>
> *I don't want mercury in my mouth because at one stage it was associated with MS and I don't know if there's any truth there but I've been diagnosed with MS so it would be stupid to take the risk like that you know I'm just not going there*
>
> *And I've certainly met other people that have had the same sort of concerns about that also health concerns about fluoride so I remember one person I was speaking to who through kidney damage through the medication that she takes for mental illness there's been kidney damage done she's been told to drink a whole lot of water but she lives in a regions where the water is good fluoridated and she's sus on whether or not the fluoride would impact on her organ health. Now I've heard of the problems that fluoride can potentially have on peoples bones that I don't I don't know the answer to that either but it's a fear so what this woman she can't afford a filter so what she's doing is trying to what she does is put the water in the fridge and let it settle for 24 hours and then drink it and leave that much at the end to try to get water in while trying to avoid the fluoride which it seems to me that whole thing is that there's not enough information available there. Or people have questions that they don't know about the answers to*

4.6.2 System issues

Emergency Treatment issues

Consumers described the difficulty in obtaining an emergency appointment

> *Ten days sometimes and I was told the last time I went for an emergency appointment by the hospital that that's all they do because they're so busy doing emergency work they can't even be can't make much impact on the waiting list.*

Health professionals confirmed that it was difficult to obtain an appointment and also what constituted emergency care in the case of dentures

> *Well it depends if you are missing all of your front teeth you become what is called a 'priority' denture and then you have to be seen much more swiftly.*

Consumers related how disheartening is was to have to rely on a system that could not

help them

But I think one of the barriers is they tell you there is nothing that could be done

Prioritising clinical Services

Funding for health care is always a contentious issue. Funding for oral health care is further compounded by the low priority it often takes in funding decisions

When people were weighing up well in terms of priorities at that time of critical care when someone you know is in need of Clinical Services that oral care drops way down on…

On the list of priorities because it is let's fix the big hole in the roof and then we'll catch the drops later sort of thing you know and then by that time they just fall off the map and it become normal that…

I think that there is a perception I was in a meeting …talking to some funders about a separate oral health project and they were, they were saying "Oh well it's not as if you know dentistry's life and death" because they were looking at funding other programs around TB and hospitals and all sorts of other things and they kind of said "Well you know that it is not really a priority area" and I said "Well it becomes a priority area if you are talking about you know kids and education and time off school you started pulling out all the reasons and they went "Yeah well I suppose that it does". But it just isn't something that doesn't clock in people's mind you know oh there's other stuff that's more important so having a healthy heart and controlling your diabetes and having your drug regime worked out properly so you're not going to die is more important than having clean teeth.

Even those services outside the hospital system admit to similar issues

we do try to pride ourselves on best providing holistic assessment as people come in but I guess I think that even you know that we probably neglect oral health and really group in that medical side….looking at you know the housing, the social, the support, I guess medical and that's probably where we would put that you know oral health stuff. So I guess we probably don't give a huge you know enough emphasis on that either even within that whole holistic assessment I would say.

Treatment delays

The oral health needs of mental health clients are often serious; this appears to be compounded by treatment delays caused both by system issues and due to the length of time people wait before seeking treatment

from a mental health prospective I wouldn't you just people wouldn't be going to the dentist for oral health care they'd be going to the dentist because they've got a pain in the tooth or they really have got major dental work that needs…

Consumers described the impact of long treatment delays

[He had] pain for about five years and was self medicating with drugs and alcohol

And what kind of impact do you think that pain might have had?

A big impact on his social life it impacted his work life

One of my girlfriends went years because her two front teeth had come out. The would pop out every day it was just sitting there and it was getting black and that was her front teeth and she would just put them in every morning once she actually lost that she swallowed them in her sleep then she got on to the [public dental service] but it took a really long time and the loss of that original tooth because she didn't…And her motivation the biggest one was losing the tooth but she wanted to have a photo with the kids where she was smiling

Consumers were asked how clients manage with such high levels of pain for long periods

They come up with lots of different things

Yeah and also whether we even ask people about their pain like whether we're so not listening about people's oral health that we can't hear that they're in pain so people stop saying you know it's like their voices if you don't talk to people about what their voice is they'll stop talking about it do you know what I mean?

It makes you feel better

We don't invite it so people think well there's no point even talking about it

Yeah you have to breathe through your nose and that and when you're sort of panicking and that it's a bit difficult to get your breathing right
It's one of the worst pains

Oh it is

Health promotion and preventative care

While health promotion and preventative care was stated as important, it was identified that there is a lack of material and programs available specifically aimed at mental health clients regarding oral health

Are there any special programs that you would know of as a dentist or as a dental hygienist for people with mental health specifically?

Not that I am aware of no.

I think that it is complex to like in mental health like from my perspective you know that people's teeth are important for lots of reasons for health, self esteem for lots of reasons but like you know it's important that we can't go the next step to make sure that people are accessed. Like I guess that we don't see it as our role to ensure that people look after their health

When consumers need to access health services particularly when in a crisis – lack of available basic oral health care necessities means that their oral health is affected

Around that facilitating oral health care I don't think that we're very aware of how of our role in that.

And I've asked about wards which actually give out like the wards typically have toothbrushes and toothpaste you know like just obvious things to assist and I didn't I don't' think that that's routine …No not at all…In the wards either

It's a big problem when people get put into hospital they don't have time to get a toilet bag or they're arrive in the clothes they're standing in

A lot of that comes back to that preventative stuff and they wouldn't have tooth brushes or anything on hand of that you know preventative stuff

4.1.3 Oral Health as part of general health

Priorities and oral health

Discussion regarding the priority of oral health in a person with mental health issues showed that oral health becomes a low priority in the business of survival overall

You're leading a bit of a dysfunctional life. Sometimes it doesn't pop up on the agenda much

And I think that it's not on your mind and even if it is on your mind it's like right first I'll get a roof over my head then I'll do you know

It was also pointed out that oral health does not often factor into those issues discussed with people like carers and mental health workers

people don't think to raise their dental issues with mental health workers because they don't see that it's relevant and it's not being promoted at all from the service so they certainly feel that it is something they might just sort of struggle with

And that comes back to that Priorities of Care and so if someone's going to a GP because they're really depressed, severely depressed, you know their oral health, you know their priorities in terms of what they need attended to oral health again probably comes further down the list in that preventative health care is what can go missing.

It was surmised that this may be due to the fact that health professionals themselves also give oral health a low priority when it comes to planning clinical care

But I don't think even if I actually think about you know like a simple thing if somebody asked me to prioritise the care of a mental health client and make a list of that I would think about, I would think about nutrition, I would think about drug and alcohol use, I would think about exercise, I would think about all of those things but oral health and dental stuff would just never have come into even the thought. Like it you know I can never honestly remember ever talking to somebody about needing to have a dental check-up or the things that they could do and I would guarantee and this is awful to but I would guarantee that if you actually did some sort of a quick assessment with third year nursing students, new graduates or often or medical students that none of them would even think about it you know it is never..

It was suggested that this was perhaps due to health professionals working in 'silos' and that lack of integration between the professions also affected the priority that oral health takes in clinical care

Well I will go another step and ponder whether actually whether oral health practitioners are only taught in private health so that in fact he is just actually taught in his own little world and it's not integrated and I think that what

[name] said about everyone's being out in private practice and it doesn't align itself with medicine or the medical fraternity, it doesn't align itself with allied health it just sits on its own

Oral Health Awareness

It was agreed that overall people are aware of what was necessary to maintain oral health; however, this was often impacted by other factors and often have unanswered questions

I think most people are aware of it. I think they're fully aware that they can affect their self esteem as well but knowing that and then having [inaudible] and that attitude

I could answer that question when it came up but then people had other questions like you know fluoride actually in the water came up, questions about whether or night teeth whitening products cause problems with enamel and like all these other questions that I don't know the answers to so generally I would say that people don't know

One health professional pointed out that oral health awareness is often something associated with childhood and then less in adult years

I think that during childhood years there's quite a strong emphasis on hygiene and health and it is sort of accepted that that goes along with you know learning how to read and write, how to do all those kind of things but then it is assumed that you know once you have finished that age that you have those skills but for some people that just isn't a reality at all I don't think and so I think that there is probably a cut off level where as a society we say "You've got those skills now and you shouldn't need any further training in how to do that" but I don't think that's the case at all.

Often oral health awareness is not enough to ensure good oral health care

My partner is a an alcoholic who no longer drinks but he reckoned he went for years and years where he never cleaned his teeth because night time tooth cleaning time he was so pissed as a newt he doesn't even remember He was lucky he got himself to bed some nights so he's ended up with you know sort of you know very severe tooth problems to the extent that he feels that it's too far gone and he's quite happy now a days if he's in pain he'll just get them ripped out and he's just given up on the whole sort of thing

Some consumers described what it was like to be affected by medication and conditions that then meant oral health was affected

You tended to sleep most of the day…You sleep and eat and nothing else …It's like going under anaesthetic

And I think it's with another even cleaning your teeth sometimes can be a chore and I know in my case …Especially when you're depressed…Yeah and it's a real chore and you know you just let it go because you know then your teeth start to get decayed…It's lack of motivation… I think then it impacts on your teeth so you lose all your teeth

Overall, consumers were asked if they were encouraged to maintain oral health

Would people's experience be that they were encouraged to look after their

teeth?

No

Not really

The impact of poor oral health

Health professionals related how they observed poor oral health impacted on client's lives

> *I see some of these people coming in particularly somewhere like [place] where they might have very poor oral health and there's a sense of shame and they feel very embarrassed about the state they've let their mouths get to and they feel very responsible for that even though that is not necessarily entirely their responsibility so there is that as well and it is quite personal and they know that someone is going to comment on.*
>
> *Because that could be a really big factor in their depression and in their self esteem you talked about self esteem before. And I know I've had patients particularly drug users who have lost teeth due to the methadone program and they can see their teeth deteriorating, and it feeds into a whole kind of system, lack of self respect and depression and in fact if you could do something that just gets them looking better it is amazing what it can do for them.*

It was agreed by clients and health professions that poor oral health often lead to long periods of severe pain for some people which also impacts on their lives

> *And pain is often the driver for people to actually do something about it; people often just seem to wait until they can't cope with the pain*

4.1.4 Discriminative Dental Care

It was felt that there was an element of discrimination when it came to dental care in this country.

Class Differences

When discussing the dental system in Australia it was observed that

> *It's very geared at sort of middle white middle class.*
>
> *I think that that ties into [name] comment about class I think I think that what's changed over the last sixty years is in Australia and in the UK to a lesser extent ah is that everybody used to have terrible teeth, everybody used to suffer from dental pain and dental disease and now it's like polarized into if you have manky looking teeth then that brands you as being lower class for whatever reason. So I think there's I think it's complex I think that it's about class and it's about, it is about the way that dentistry has served the middle class and upper class people and not the lower classes and it is very complex.*

Consumers also touched on this topic and felt it was unfair

> *I think everybody should have a choice everybody should actually have the quality of health care that they need*

Expected Behaviour and appearance

Part of discrimination regarding dental care in Australia was also observed to be part of the expectations society have about the way people look and behave

> *And it's like there's a number of groups that find difficulty accessing dental care because they are not conforming to the expectation of that practice about how they should behave.*
>
> *Whenever I go to the Dentist you know you look around the waiting room and it is very stereotypical you know people nicely dressed, nicely spoken*
>
> *But if you think about from a mental health prospective and the significant barriers that mental health consumers face in terms of every aspect of their daily living you know I mean mental health, you know you will see somebody who'll you'll think oh they're are quite mad because they are so visible because we make so many judgments about people about the way they look and when you think about the fact that somebody's you know is behaving a bit bizarrely or that you think that they have got a mental health problem but then they've got no teeth as well being able to access a job. You know we still are very much a society that expects people to look, to look the part.*
>
> *Unfortunately that doesn't change the nature of how that's done has changed but we've always it's always been done on appearance.*

Consumers described instances where their dental care was affected because they had 'broken the norm' of expected behaviour

> *I was screaming you know I just ran out of there I mean I've run out of many things if I don't feel like they can handle me then I'll run you know I become a four year old…And if you start crying they sort of go into a bit of a panic they don't know how to deal with it*

Bargain Basement Care

Consumers discussed at length what it was like to receive seemingly "bargain basement care" and the frustrations of knowing they were not getting the dental care they might

> *They only did one tooth and when they pull it out or whatever they usually I've never had been suggested asked if they wanted a root canal done on the tooth….there's a view that what you get in public dentistry is they'll pull the tooth out but they won't suggest a way to try to help you to save the tooth and so you know people who are experiencing pain won't go to the public dentistry thing because they you know they don't want to have the tooth pulled out*
>
> *They want to keep the tooth but they can't afford a private dentist so there's a real double bone there.*
>
> *I knew and they knew that they were going to get their teeth pulled out because you don't get what I could afford*
>
> *That you know to fix the problem in the quickest cheapest way regardless of you know how you feel about having a tooth removed or whatever has been suggested*
>
> *In terms of an emergency thing that seems to be the way*
>
> *I don't want to lose any more of my teeth if I can help it*

Health professionals agreed that unfortunately this was the case, however, pointed out that from a business point of view – it was not wise to provide care that in all likelihood would not be paid for which could then affect their business

> *I don't think dentists are heartless people. I think that they do have an interest in that but there are the additional barriers so the intention is good but there's additional barriers which are…A risk to Business.*

4.1.5 When mental health complicates oral health

The impact that mental illness can have on oral health is far reaching.

Compliance

An unfortunate circumstance of those suffering from mental illness is that time management and compliance with appointments and treatment is often adversely affected. Health professionals said there were often *"issues [with] people actually turning up"*.

It was also noted that due to these compliance issues common to mental health patients, oral health care can be affected

> *But in a sense you know I think that's understandable for one or two effects and the GP but you know they're going to think this patient has these symptom's or has this condition which we know can be effected by this drug we haven't got any other choice we'll give them this drug anyway so I talk about their oral health, is it going to change anything? Probably not because they're not going to access those services anyway and they're probably not brushing their teeth so really whether I talk about it or not does it make any difference? And you know that is probably what is going through their head so there needs to be something sort of beyond that framework which supports what they're talking about so it actually feels like they can actually rely on the system*

Dental Fear Exacerbated by Mental Illness

Consumers talked about how their dental fear was often compounded by their mental illness

> *Me with my support worker sitting there and basically interviewing the dentist so telling the dentist about where I'm coming from and my need and you know by telling him things like if you tell me off if I feel like you're telling me off I won't be able to stand like then I'll burst into tears and become a four year old having a tantrum and you can't pursue anything then you know that's the end of it*

> *When it comes to going to the dentist the anxiety will come on and they just won't go you you're very sort of pulling her along by the with a rope to get her in there sort of thing you know. Because she won't go and …*

This compounded situation is often enough to deter mental health clients seeking dental care for extended periods of time

> *I only go to the dentist when my tooth crumbles out completely… But before*

my tooth crumbled up I could have gone [without going] to a dentist for years about 5 years 7 years before I went to a dentist because I was so scared

Frustrations of Mental Health Clients

Consumers shared how frustrating it can be to be marginalised by health professionals and particularly dentists despite the fact that they, as a health professional should have an understanding of the conditions the client suffers from

They get a sort of a history sheet and you fill out medications any previous history and of any diseases you've got and all this sort of thing like you know things in the family or whatever. There's always and you just tick it if you've got it circle if you've got it and if you haven't got it then they have a form about what medications you take you know on the back or whatever so it updates them onto you know your sort of dental history I suppose at that time and so but try but I'm sitting in the dental chair or something like that and I had one dentist say to me is that under control at the moment? I said yeah it's under control or something he must have thought I was going to jump out of the chair and sort of prance around the room. Anyway some questions with the fear and anxiety could have been on it sort of

Intolerance of Mental Health Clients

Consumers felt as a whole that there was an intolerance of mental health clients in dentistry. It was perceived that this was not always the fault of the practitioners themselves but also due to lack of communication and interest in the area of mental health needs

Staff did not have a good understanding of Mental Health needs and also the Dental Health Staff and Mental Health Staff didn't communicate with each other and didn't understand retrospective areas and didn't understand the particular needs of people living with serious mental illnesses

Some dental experiences with intolerance meant that they no longer accessed the public health system in particular

Oh look I've had some shocking I've given up on public dentistry for that reason because they don't seem to have the skills to deal with

Health professionals related the difficulty of the attitudes of a minority of dentist affecting the majority

{When asked about providing a service for mental health clients] "Oh god no we couldn't possibly do that we can't have mad people sitting in the waiting room" and it was that kind of absolute attitude, which is actually quite embarrassing. But then when in actual reality when it was going to encroach into your world, encroach into your practice.

It was observed that treating mental health clients appears to be 'uncomfortable' for a lot of health professionals

If you thought you know even if we think about if we were going to provide access for people with some sort of disability everyone always gets very anxious about if it's a mental health client.

Medication issues

It was widely acknowledged that medications associated with mental health may cause oral health problems; however, open acknowledgement of such has only really been recent and is sporadic at best

> *I had a friend of mine that said for the last twenty or thirty years he's cleaned his teeth twice a day and now he's got no teeth so what I mean is he's different and he believes it was the medication*
>
> *When medication is prescribed isn't there technically a conversation between you and your health professional at that point? Where those issues are raised?...No not really ……No…I don't remember anyone saying about teeth to me my dentist doctor or anything*

Consumers are often concerned about what the medications might be doing to them but are not often given any answers

> *Yeah I remember when I was unwell a few times and I'd lose a lot of hair and I was wondering well my hair's falling out what else is it doing to me?*
>
> *Once in a blue moon someone would say something but no it was no I wasn't really sort of informed that much at all*
>
> *With a lot of medications you aren't told that.*

Discussion also centred around the fact that often health professionals, carers and other people in positions of authority for mental health clients do not have a good understanding of the oral health side effects of medications

> *In that consultation you know does anybody know that medication can impact on teeth no-one knew the answer including… under the mental health act that people should be you know if they're being prescribed a medication then they should be told what alternatives to that medication there are and they should be told what the side effects are and certainly in my role as an advocate that that certainly doesn't seem to happen. That generally people are given a leaflet that comes in the box with the medication but sometimes printed off. And I have never seen a printout that talks about oral hygiene or any of those side effects like those or this other side effect*
>
> *I found it very useful recently being involved in this project …I've learned a lot about medications…. I wasn't aware of and I told you this already about the high salivation effects of some medications and the other thing that I wasn't aware of was the irreversible effects of the medications on motor sort of you know …Tardodiskinesia….So that's something that really struck me as something that I hadn't really sort of thought about in the past.*

Dental professionals related how this study had exposed issues that they had not really given a lot of thought to before and how they might affect the oral health of mental health clients. In discussing treating someone who suffered from Tardodiskinesia – a condition where the client has continual and uncontrolled movement of the face and mouth the dentists observed:

> *But even if you I mean restoring a tooth, how could you do it? I would find it impossible to fill someone's tooth if there was if just their movement all of the*

time and so that is going to limit their choice of you know potential care that they can get. It becomes more about extraction which would probably be difficult but easier than filling the tooth. So I think people's choices are more limited because of those effects as well.

Or they'll just get sort of get put into the too hard basket by the practitioner then rebooked and rebooked and eventually cancelled

4.7 Case study – needs assessment

As part of the student work, a small project was undertaken as a case study in a rural/regional psychiatric service.

4.7.1 Case study aim

The aim of the case study was to:

Identify the oral health support needs of health professionals employed in a rural/regional psychiatric service.

4.7.2 Data collection and findings

Data were collected from three services within a specific region; a Community Mental Health Service, rehabilitation units spread across a wide geographic region and an acute inpatient service.

The group designed a questionnaire based on the issues identified in the literature review and used this to guide their in-depth interviews with staff.

The overwhelming response to oral health questions was that oral health has a low priority when providing care to people with severe mental illness due to lack of available resources and funding.

The manager of a Community Mental Health Service (CMHS) indicated that oral health is not viewed as within the scope of care provided to people attending the CMHS. However, the need for oral health education and continuous engagement in delivering oral health messages was identified as important.

Table thirteen provides a summary of the findings

Table 13 Findings from a needs analysis

Questions	Community Mental Health Service	Rehabilitation	Acute inpatient
1. Identified oral health need of the patient population and staff.	• Education on the importance of oral health by both staff and consumers. • Continuous staff and community engagement. • Increase access to dental service by waiving the co-payment of fees. • Involvement of oral health product manufacturers in research.	• Identified that patients generally have poor oral health but this is not staff's priority; • Increase access to dental service by waiving the co-payment fees. • Free access to resources and materials on oral health.	• Access to dental service.

Questions	Community Mental Health Service	Rehabilitation	Acute inpatient
2. *Prevalence of dental pain complaints.*	• Very common, often as a sequelae to the effects of poly-pharmacotherapy. • Study revealed that dental decay problem is bigger than what is normally reported.	• Very common complaint. • Decay is very noticeable.	• Very common complaint.
3. *Type of pain*	• Severe toothache due to caries, periodontal disease. • Dry mouth resulting in poor retention/ill-fitting dentures. • Burning sensation as adverse effect of antipsychotic medication.	• Patient sometimes cannot comprehend dental pain (reported incident when patient extracted own teeth).	• Requires a lot of antibiotics for tooth ache as well as pain killers to relieve pain.
4. *Steps taken by staff when oral health problems are identified*	• Advise patient to seek dental treatment. • Sometimes case manager will organise appointment to see the public dental or private clinics. • Apply for emergency appointment.	• Make appointment at dental clinic or either emergency treatment or be put on the waiting list.	• Doctor sees the patient and gives pain relief. • May issue antibiotic then send the patient to the dental hospital.
5. *Oral health support in their facility*	• Referral service. • Encouragement to attend dental hospital. • Assist patients in keeping their appointments using cue cards, diaries, reminder notice or ringing patient on the day before their appointment time.	• No oral health support or intervention unless on an emergency care basis.	• No oral health support from staff. • Concentrating on patient's general care.
6. *Presence of specific dental programs*	• No existing oral health program.	• No oral health program. • Oral health care like tooth brushing is the responsibility of the patient and not enforced by the staff.	• No attempt to increase patient's oral health practices.
7. *Barriers to improving oral health*	• Willingness to access treatment. • Poor access or less access due to long waiting list. • Lack of funds or available resources to pay for dental treatment. • Lack of education of consumers, workers and other service providers. • Not having the ability to keep appointments. • Case manager's priority in delivering patient's treatment needs. • Low oral health priority. • Staff's limited oral health training while at university. • Lack of mandatory requirement or regulation towards maintenance of patient's oral health. • Lack of knowledge about current Medicare program for chronically ill patients.	• Negative symptoms of illness. • Inability of the public system to identify mental health patients as high risk. • Need of continuous dental care. • Limited community support. • Unaware of government funding and resources available to mental health patients (Medicare dental program). • Lack of preventive oral health care for this group of patients. • Knowledge on the effects of drugs and medications. • Long waiting list is a problem (immediate treatment on emergence of symptoms is required).	• Oral Health is not a high priority as they have other psychological/ mental health issues to attend to. • Finances. • Access. • Lack of Client's organisational skills. • FTAs – failure to attend appointments.
8. *Contributing factors towards poor oral health*	• Severe psychosis that could lead to: a) Interrupted schooling/ education. b) Lack of job or inability to hold job leading to impoverished situations.	• Lack of funding. • Lack of time (carers). • Unmonitored self care on oral health improvement. • Lack of understanding on the importance of maintaining good oral hygiene (consumers and	• Lack of resources and materials to deliver oral hygiene message (some patients not owning a toothbrush). • Minimal time to deal with oral health care

Questions	Community Mental Health Service	Rehabilitation	Acute inpatient
	c) Loss of self-esteem. d) Inability to maintain relationships. e) Poor diet and nutrition. f) Lack of motivation to maintain physical hygiene and oral health. g) Lack of understanding of the importance of maintaining good oral hygiene. h) Alcohol and /or drug abuse or history of these. i) Smoking habits. j) Server side effects of medications. k) Lack of funds. l) Fear and phobia of the dentist. m) Staff's lack of knowledge about current Medicare programs for chronically ill patients. n) Little understanding on the importance of maintaining good oral hygiene (consumers and carers).	carers). • Lack of knowledge about current Medicare programs for chronically ill patients. • Fear and phobia of the dentist.	issues. • Services priority is on psychological health and well being of the patient (oral health least in their priority). • Patient generally unwell.

5. Educational material production

5.1. The underpinning principles of the educational material development

The third and fourth stages of the project have focused on the development of an educational package. This has been undertaken by drawing together existing evidence based resources and having the experts from the critical group and identified key people assist in the process of developing new resource material. The materials produced have been methodically reviewed and refined by the critical group and wider stakeholders. The dissemination of the educational package is to commence in the concluding stage of the project via a full day workshop. The proposed approach to the initial release of the education package is to promote the relevance of the package to the broad target audience; health professionals, mental health consumers and carers. The workshop will include practical training sessions, presentation of the developed educational package and opportunities for networking.

Throughout the project it has become increasingly evident to members of the critical group that the educational capacity of this concept has enormous potential that extends beyond the initial submission. The package developed has laid a strong foundation for future funded works to be undertaken to further strengthen health professionals and mental health consumer's knowledge of oral health. The completion of the education package has resulted in the development of resources orientated toward addressing the overall project aim of improving attitudes and knowledge related to mental health and oral health. To ensure that the content would address the project aim and be delivered in a manner that will suit the intended audience, it was imperative to

consider the scope of the educational package and to clarify the audience. In doing so, the critical group established;

The project has clear boundaries with other research being undertaken by the La Trobe University Health Science Faculty. The work necessary to achieve the project objective will not result in any overlap with other research activity or existing resources.

The geographic spread of impact for this project is intended to cover the Loddon Mallee region with potential for future replication in other Victorian rural regions.

There are two distinct audiences for the project that are consistent across all components of the educational package.

Health professionals caring for people with mental illness (general practitioners, dentists, allied health professionals, mental health workers). This collective term encompasses students, health professionals working in various settings, including acute hospital and community settings and practitioners working in private practice. The level of education of this audience is consistent with the requirements of their registration board and place of employment.

People with a mental illness. There is a continuum of wellness with regard to mental illness; the critical group recognised that the demographic of this audience will vary considerable. No assumptions can be made with regard to living circumstances, level of education, employment status and computer competence. The attention span of this audience may be shortened which needs to be taken into consideration for presentation of information including; level of depth of the information, language and complexity of concepts.

Whilst the profile of the audience remained central throughout the development process, it was essential that the critical group worked in reference to guiding principles or within an established framework to develop material that was rigorous and informed. The principles of adult learning were discussed and deemed best suited for the duration of the development phase. It has been suggested by (Rimanoczy, 2007, p. 43) that there are two different focuses in adult learning. One is embedded in scholarly research and the practice of reviewing existing literature. This practice sees the development of theory and conceptual frameworks designed to understand and explain practice and improve the results of learning approaches. The other focus is that of practitioners; adult educators face challenges using judgement with a combination of information, conceptual input, intuition and experience (Rimanoczy, 2007). The benefit of having a critical group composed of academic staff, health professionals and mental health consumers is that both focuses of adult learning have been identified and have been relevant and engaged throughout the entire process.

The process necessitated that the critical group be clear on what it was that a health professional or mental health consumer would achieve by accessing the educational package. The development of resource objectives suited to the dual audience was created to guide the

collation of content. Table fourteen details the nine objectives that guided the development of content.

Table 14 Objectives that guided the development of the educational material content

To promote an understanding of oral health
To understand basic anatomy and physiology of key oral structures
Create awareness for mental health consumers of being at a higher risk of having oral health problems.
To understand the connection between oral health and systemic health
Offer practical advice that will promote an improvement in oral health self management.
To empower consumers to feel confident to seek oral health care.
To identify appropriate strategies to assist with overcoming dental anxiety
Acknowledge the reality of dental anxiety
To support the development of skills to manage oral health

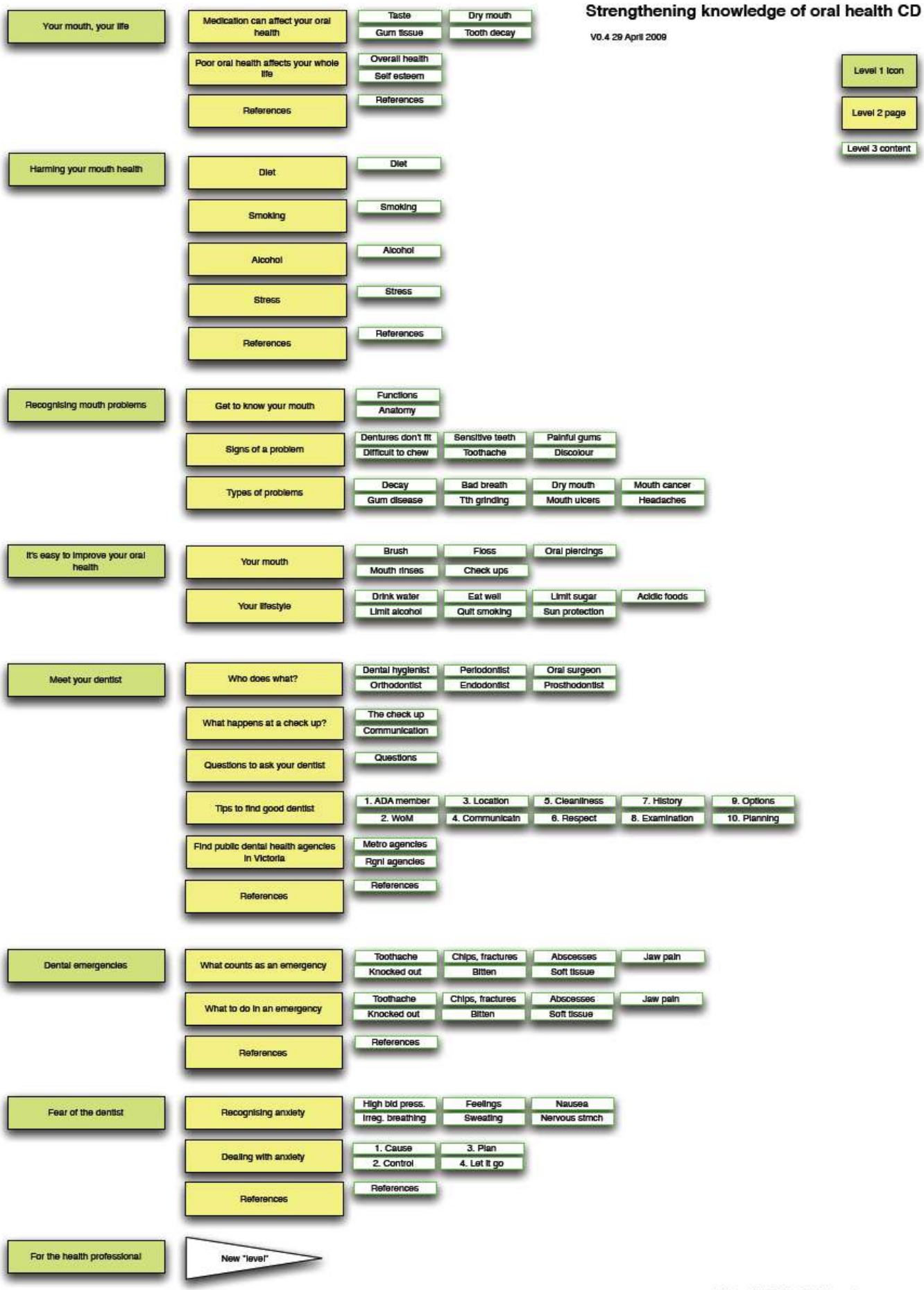
The dual audience identified, demanded that to maximise effectiveness, the educational package be presented in formats extending across several mediums. As the inclusion of explicit teaching and learning to develop key skills, attitudes and behaviours has been identified as a characteristic of effective educational programs (Wearne, 2007), it was imperative that options existed for the audience to comprehend the information in the educational package in a manner that best suited their needs and capabilities. The educational package consists of

- An educational CD
- A hard copy of the content on the CD in booklet format
- A web interface that conforms to the World Wide Web Consortium guidelines currently accessible
- A bookmark to promote the package
- A more detailed on line training program

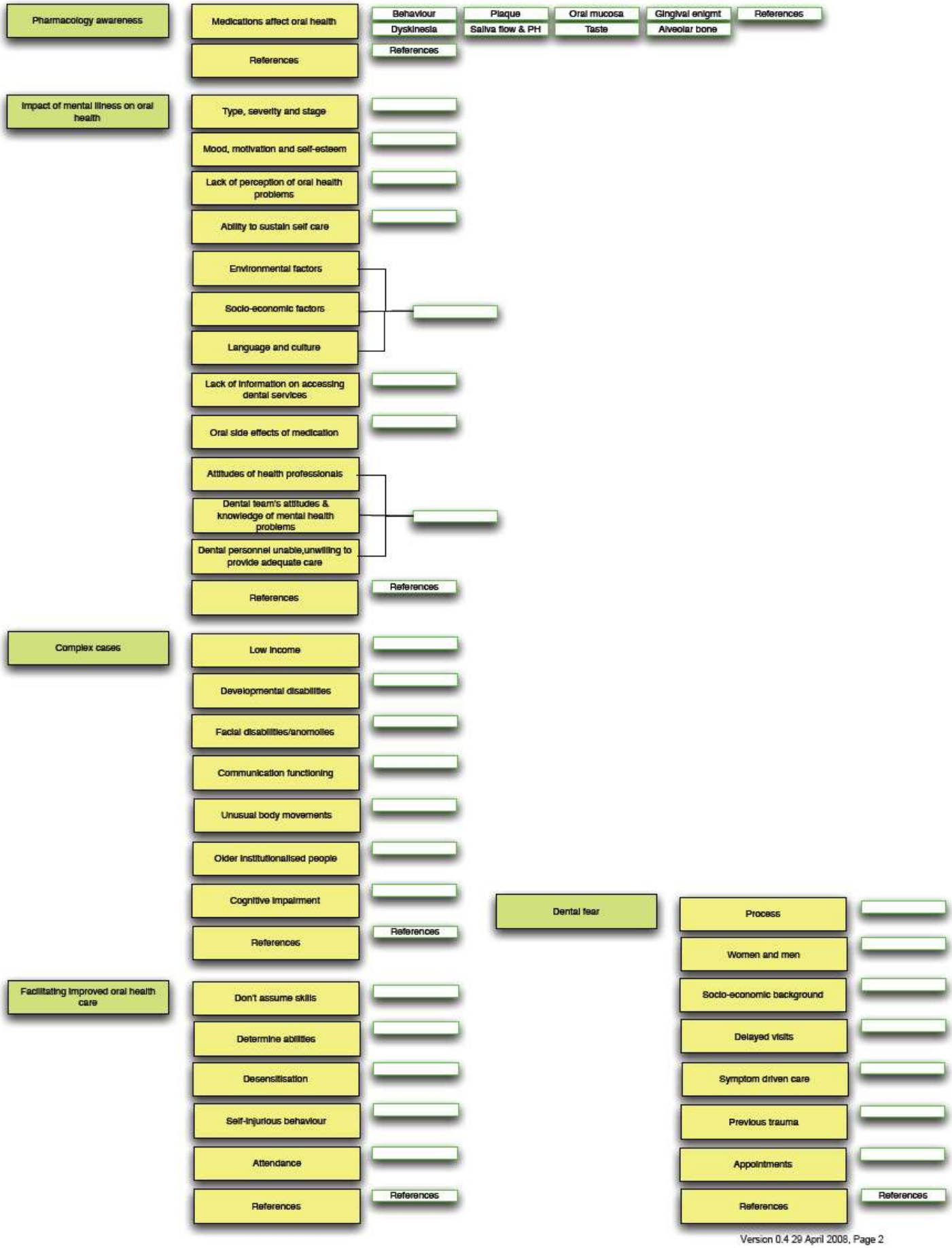
5.2 The content of the CD and website

The content on the CD and the web site utilises written text, digital images and audio files to present the information in a sensory stimulating manner. In the development of the CD it was decided by the critical group that a 'less is more approach' would be most suited to ensure that it is easy to navigate and that the user will gain key concepts that will instigate self-directed learning. The material included was decided on though a refinement process by the critical group that took into consideration the extensive literature review, review of existing educational packages with a similar focus and the information attained through the collection of quantitative and qualitative data.

As demonstrated in the map below, the content of the CD has been separated into consumer and health professional areas. This decision was simplify the arrangement of data but does not exclude the user from accessing both areas. The information is tiered in a three level approach. The first level being an icon with a descriptive phrase that will promote the audience to identify with the topic as an area they wish to pursue. The second level has an overview of the main topics to be covered. When accessing each topic the third level will be informative statements. Digital images and audio files are featured throughout the information to reinforce written content where appropriate.


Strengthening knowledge of oral health CD
V0.4 29 April 2009
Level 1 Icon
Level 2 page
Level 3 content
Your mouth, your life
Medication can affect your oral health
Taste
Dry mouth
Gum tissue
Tooth decay
Poor oral health affects your whole life
Overall health
Self esteem
References
References
Harming your mouth health
Diet
Diet
Smoking
Smoking
Alcohol
Alcohol
Stress
Stress
References
References
Recognising mouth problems
Get to know your mouth
Functions
Anatomy
Signs of a problem
Dentures don't fit
Sensitive teeth
Painful gums
Difficult to chew
Toothache
Discolour
Types of problems
Decay
Bad breath
Dry mouth
Mouth cancer
Gum disease
Tth grinding
Mouth ulcers
Headaches
It's easy to improve your oral health
Your mouth
Brush
Floss
Oral piercings
Mouth rinses
Check ups
Your lifestyle
Drink water
Eat well
Limit sugar
Acidic foods
Limit alcohol
Quit smoking
Sun protection
Meet your dentist
Who does what?
Dental hygienist
Periodontist
Oral surgeon
Orthodontist
Endodontist
Prosthodontist
What happens at a check up?
The check up
Communication
Questions to ask your dentist
Questions
Tips to find good dentist
1. ADA member
3. Location
5. Cleanliness
7. History
9. Options
2. WoM
4. Communicatn
6. Respect
8. Examination
10. Planning
Find public dental health agencies in Victoria
Metro agencies
Rgnl agencies
References
References
Dental emergencies
What counts as an emergency
Toothache
Chips, fractures
Abscesses
Jaw pain
Knocked out
Bitten
Soft tissue
What to do in an emergency
Toothache
Chips, fractures
Abscesses
Jaw pain
Knocked out
Bitten
Soft tissue
References
References
Fear of the dentist
Recognising anxiety
High bld press.
Feelings
Nausea
Irreg. breathing
Sweating
Nervous stmch
Dealing with anxiety
1. Cause
3. Plan
2. Control
4. Let it go
References
References
For the health professional
New "level"
Version 0.4 29 April 2008, Page 1

Health professional "level"



The web interface has been designed to be dual purpose. The initial web site will replicate the information contained on the CD. The critical group thought that it was important for the educational material to be accessible via the internet in the event that people did not have access to the CD. The web site connects to a more detailed training package on the Learning Management System hosted by La Trobe University. Health professionals will have the opportunity to utilise this site to access information of increased complexity and to also undertake accredited assessments recognised by professional regulatory bodies.

The material has been structured and presented by a specialist web design company.

5.3 The online training package

Educational designers have developed and constructed the online training package. The package is underpinned by an enquiry based learning approach.

5.3.1 Enquiry based learning

The following description of enquiry based learning is taken from the La Trobe University Study Skills Scheme handbook available at http://www.latrobe.edu.au/sss.

Enquiry-based learning (EBL) is a teaching-learning method that focuses on students collaborating to pursue their own lines of enquiry and to share research and opinions in achieving the required learning objectives. This approach uses health-related situations as a context for learning critical thinking and problem-solving skills and for further development of information literacy skills. EBL is a reversal of the traditional order of learning, where you had to learn the information and then apply it. In EBL, learning centres on an enquiry, or real-world project.

5.3.2 Characteristics of EBL

EBL is a teaching-learning approach which:

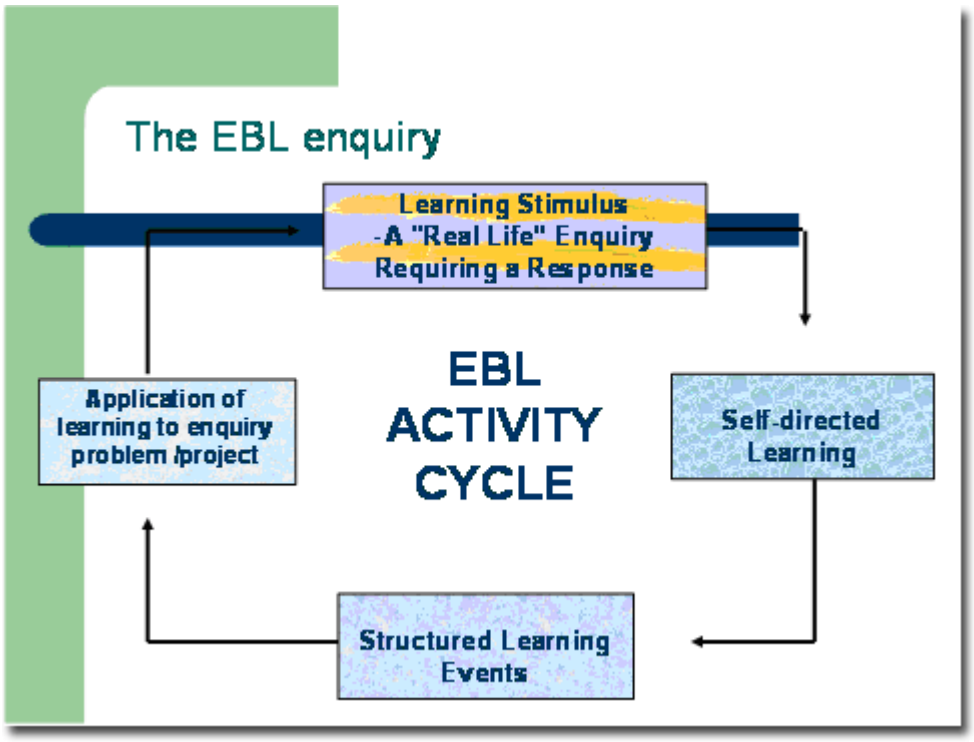
- uses real-world situations as a context for learning
- focuses on thinking skills, e.g. critical analysis, problem-solving, and decision-making
- requires an integration of inter-disciplinary knowledge, skills and behaviour
- requires students to take responsibility for their own learning
- allows students to develop life-long learning skills

Adapted from Penny Little, PBL Pty Ltd. (pennylittlePBL@bigpond.com)

The process of EBL

Unlike traditional teaching and learning approaches, in EBL the enquiry is central. Furthermore, the starting point for each enquiry is a real-life case or situation, which then leads to an exploration of the issues. The diagram below illustrates the cycle of learning activities in an EBL enquiry.

Figure 2: *The EBL enquiry*



5.3.3 The use of EBL in our online program

Our program has been designed around case studies and digitally recorded stories. Students are required to read and engage with the material hence creating the learning stimulus. Structured learning events are created and direction to further resources given. Self directed learning is encouraged. Some of the digital story material is provided on the attached CD.

5.4 Workshop

Detailed planning has been completed for the workshop and this will be conducted in the coming weeks. The completion of the educational material by the web development company has created some delay in delivering the workshop; however, it has also enabled detailed planning to occur. Pragmatically, we believed that conducting the workshop prior to the educational material being completed by the web company would compromise what we were trying to achieve so the decision was made to delay this component until all material was finalised.

6. Details of any difficulties

Given the complexity of the project we have encountered very few difficulties.

1. The piloting and distribution of our questionnaire was delayed by ethics approval processes that were outside our control. We submitted our ethics application in a timely manner in November and were advised that the process would take no longer than three weeks. There have been some changes to the La Trobe University Ethics Committee and this delayed the review of all ethics applications over the Christmas close down period for ethics reviews (December-February].

2. We have had some small challenges related to the reimbursement of consumers who are participating in the project. We have worked with VMIAC, our consumers and our budget officer to ensure that the consumers are not financially disadvantaged through their participation in the project. This has required a great deal of sensitive negotiation of individual arrangements for payment of consumers as many of them are in receipt of Centrelink payments. The total payment to each participant was in accordance with the budget submission.

3. Our project material is currently with a web design company. We are conducting regular follow up and expect delivery shortly.

7. Dissemination

A paper was accepted and delivered at the National Rural Health Conference on Tuesday 19th May in Cairns. The paper attracted significant interest and stimulated interesting and challenging discussion. The following appendices are attached that relate to the National Rural Health Conference Presentation:

- Appendix 6 The National Rural Health Conference program
- Appendix 7 The conference abstract
- Appendix 8 The conference paper

Consistent with the funding proposal, one of our consumers attended the conference and was fully engaged in the process.

Dr Ben Keith presented a paper at the Australian Dental Prosthetists Association Conference held in Creswick, Victoria from the 22nd to 23rd May 2009.

An abstract has been accepted as a poster for the ANZACME: The Association for Health Professional Education Conference - 30th June - 3rd July 2009, Launceston, Tasmania (Appendix 9).

We have had a further paper accepted at the NET conference at Cambridge University UK in September 2009. The abstract for this paper is attached at Appendix 10.

8. Names and details of critical group members

Member	Role
Associate Professor Amanda Kenny	La Trobe University, Director of the Faculty of Health Science Project Manager
Melanie Bish	La Trobe University, Research officer
Tracy Kidd	La Trobe University, Research officer
Ms Susan Kidd	La Trobe University, Lecturer in Nursing Mental Health expertise
Dr Carol McKinstry	La Trobe University, Lecturer in Occupational Therapy Allied health expertise
Associate Professor Mark Gussy	La Trobe University, Lecturer of Oral health and Dentistry. Oral health and Dentistry expertise
Dr Ben Keith	La Trobe University, Lecturer of Oral health and Dentistry. Oral health and Dentistry expertise
Liz Carr	Victorian Mental Illness Awareness Council Mental health expertise
Natasha Garner	Bendigo and Districts Aboriginal Cooperative
Karen Riley	Bendigo Community Health Service, General Manager
Dr Ken Armstrong	Bendigo Community Health Service, Senior Community Paediatrician
Val Hoffschildt	Mental health consumer
Wayne Weightman	Mental health consumer
Fiona Ritchie	Mental health consumer
Anita Rodgers	Mental health consumer
Bob Doolan	Mental health consumer
Dr Albert Chan	General Practitioner
Brendan Landy	Bendigo Health Consumer consultant
Dr Hanny Calache	Clinical Director, Dental Health Services Victoria. Oral health and Dentistry expertise
Professor Peter Wilson	La Trobe University, Head of School of Dentistry and Oral Health Oral health and Dentistry expertise
Eugene Meegan	Bendigo Health Community Mental Health Team, Mental Health expertise
Dr Joe Tucci	Pharmacist

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APPENDICES

Appendix 1: Critical Group invitation/ information sheet

Invitation/information sheet for the project titled:

Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers

La Trobe University Human Ethics Committee approval no: _____

Dear colleague

We are delighted to inform you that we have been successful in gaining funding through the Rural Health Support, Education and Training Program, Department of Health and Ageing, Commonwealth of Australia for a project titled:

Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers

Project aim

The overall aim of the project is to improve quality of life to rural mental health clients in the area of oral health by developing resources to improve oral health knowledge and skill of health professionals and mental health consumers.

Project activities

There are four main activities in this project

Activity 1 the formation of a critical group (see below).

Activity 2 the development and distribution of a questionnaire to health professionals (nurses, mental health workers, allied health staff, medical practitioners and dental professionals) seeking their attitudes and knowledge related to mental health and oral health. Additionally, the questionnaire will seek respondent's views on how resources should be developed to enhance knowledge and skill in managing oral health with mental health clients.

Activity 3 the development of an educational program for multidisciplinary health professionals and mental health consumers.

Activity 4 dissemination workshop. A full day workshop, to share the learning's from this project with a wider group of health professionals and consumers and carers will be conducted.

We are pleased to invite you to be part of the critical group for this exciting project.

The role of the critical group

The critical group will be central to the overall conduct of this project. The role of the critical group is to:

a) Work together to develop a shared understanding of ways in which oral health and mental health can be maximised in the rural/regional context.

b) Develop a questionnaire for distribution to health professionals (nurses, mental health workers, allied health staff, medical practitioners and dental professionals) seeking their attitudes and knowledge related to mental health and oral health. Additionally, the questionnaire will seek respondent's views on how resources should be developed to enhance knowledge and skill in managing oral health with mental health clients

c) Use the action research spiral processes of sourcing information (including the results of the questionnaire), planning and action to develop resource material designed to strengthen knowledge, skill and understanding of oral health issues as they relate to mental health and oral health.

d) Be involved in a full day workshop to share the learning's from this project with a wider group of health professionals and consumers and carers.

We have invited twenty-one people to be involved in the group that includes dental professionals, medical professionals, mental health staff, allied health staff, a pharmacist, and representatives from the Victorian Mental Illness Awareness Foundation, consumer consultants and importantly mental health consumers.

Research – the critical group activities

As outlined, members of the critical group will work together to produce educational material for health professionals and mental health consumers. We will develop processes to ensure that all members of the group are able to participate fully. We are interested in the process of developing this material. As a member of the critical group, you would agree to the audio-taping of our meetings and the sharing of other group materials that may be developed (including things like email discussion). We would use this material as research data for the overall project.

To ensure that you are clear on what may be used as data from group activities, a transcript of all interactions (a narrative) will be distributed to members providing them with an opportunity to confirm that the transcripts are a true and accurate representation of group activities. The material may include transcripts typed verbatim from critical group meetings and other contributions such as email input. This process will occur on a monthly basis. Participants will be provided with the opportunity to add to or remove any information from these transcripts (narratives) as they see appropriate. The reviewed transcripts (narrative) will be returned to the Research Officer, Ms Melanie Bish, who will amend the transcript accordingly and will circulate it as a true and accurate record of the month's activities. All project material will be de-identified. That is, individuals will not be identified in any group material that is generated.

As part of the group, you would participate in the development of the questionnaire and would use this information to assist you (as a group member) in developing educational resources that would be suitable for health professionals and mental health consumers.

The final activity for the project would provide the opportunity for you to be involved in a full day workshop to share the learning's from this project with a wider group of health professionals and consumers and carers.

If you are interested you would be asked to sign a consent form agreeing to participate and agreeing with the process of recording group activities outlined above.

Your involvement in the project

People who have agreed to be members of the critical group will be invited to an initial meeting, where the process for involvement will be developed by the group. The frequency of meetings and other means of communication will be agreed to. We would expect that members of the group may be required to spend up to 32 hours in total (including reviewing educational material) on this project.

Reimbursement for your time

We have funding to reimburse you for expert input into the development of the educational material that is to be developed as part of the overall project. The funding is designed to cover your reasonable costs (22 hours total for each group member at $60.60 per hour in being involved, and 10 hours expert input per group member costed as $90.10 per hour).

Benefits to you in participating

The researchers recognise that there may be no benefit to participants; however, participation in the project will provide each member of the critical group the opportunity to share their experiences and may provide them with the opportunity to improve their knowledge on the delivery of oral health to mental health consumers. Given the key role that health professionals play in the delivery of oral health services, those within each of the respective professions and the broader community stand to benefit from interdisciplinary engagement that is actively looking to improve the delivery of oral health to mental health consumers in a manner that is informed by research findings. A potential benefit for members of the critical group is the opportunity to further enhance their own experiences of interdisciplinary research.

Risks associated with participation

We believe there is a very small risk that individuals might find participation in the group difficult. We will work with the mental health consumer consultant and the Victorian Mental Health Illness Awareness Council to ensure processes for the group function are supportive of equal participation of all members.

Storage of research data

All data collected in this study will be stored in a locked filing cabinet in the office of Associate Professor Amanda Kenny in the Faculty of Health Science building at La Trobe University in Bendigo. All computer files will be password protected. Consistent with Public Records Office of Victoria Standard (02/01) all project material, including signed consent forms (for critical group participation), will be kept in a locked filing cabinet for a period of five years following publication. At the end of this time all material will be security shredded.

Dissemination of the project findings

The results of the study will be presented in the form of a report that will be distributed to the funding source (Rural Health Support, Education and Training Program, Department of Health and Ageing, Commonwealth of Australia) and key stakeholders. These stakeholders may include the Victorian Mental Health Illness Awareness Council.

The final report will be made available via the La Trobe University web site. The study results may be made public at conferences or in the media; they may be published in a professional or academic journal and/or may be published in a book or on the Internet.

If prospective critical group members have additional questions that are not answered by the invitation/information sheet they will be asked to contact Associate Professor Amanda Kenny for clarification.

Further information about the study can be obtained from:

Associate Professor Amanda Kenny
Acting Associate Dean
Faculty of Health Sciences
La Trobe University
PO Box 199
Bendigo 3550
(03) 5444 7545
a.kenny@latrobe.edu.au

Ms Melanie Bish
Research Officer
Faculty of Health Sciences
La Trobe University
PO Box 199
Bendigo 3550
(03) 5444 7855
m.bish@latrobe.edu.au

If you have any complaints or queries that the investigator has not been able to answer to your satisfaction, you may contact the Ethics Liaison Officer, Human Ethics Committee, La Trobe University, Victoria, 3086, (ph: 03 9479 1443, e-mail: **humanethics@latrobe.edu.au).**

Thank you in anticipation of your response.

Kind regards,

Associate Professor Amanda Kenny
Director Health Sciences, Bendigo Campus

Appendix 2: The terms of reference for the critical reference group

Terms of Reference

Context and function

The 'Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers' Critical Group has been established to provide a formal structure for discussing and resolving issues that will enable it to function as a guide through all stages of the project.

The Critical Group will develop a shared understanding of ways in which oral health and mental health care can be maximised in the rural/ regional context.

Role of the 'Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers' Critical Group.

The role of the Critical Group is to:

- Partake in the responsibility of the project's achievement of outcomes.
- Ensure the scope of the project consistently aligns with the requirements of the identified stakeholders.
- Provide those directly involved in the project with guidance on project issues.
- Ensure effort and expenditure remains appropriate to the scope of the project.
- Address any issue that has major implications for the project.
- Keep the project capacity under control as emergent issues require change to be considered.
- Reconcile differences in opinion and approach, and resolve disputes arising from them.

Role of individual Critical Group members

The role of the individual member of the Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group includes:

- Understand the strategic implications and outcomes of initiatives being pursued through the project.
- Appreciate the significance of the project for stakeholders and represent their interests.
- Be an advocate for the project's outcomes.
- Have a broad understanding of project management issues and the approach being adopted.
- Be committed to, and actively involved in pursuing the project's outcomes.

In practice:

- Ensure the requirements of stakeholders are met by the project's outputs.
- Provide constructive feedback to the Project Manager.
- Consider ideas and issues raised.
- Review the progress of the project.
- Ensure adherence of project activities to The La Trobe University research ethics and integrity framework.

Membership

The Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group shall be comprised of:

- La Trobe University Associate Professor Amanda Kenny (Project Manager).
- Bendigo Community Health -Karen Riley General Manager Primary Health, Dr Ken Armstrong, Senior Community Paediatrician.
- Bendigo Health Community Mental Health team – Ms Susan Kidd, Mr Eugene Meegan.
- Dental professionals – Professor Peter Wilson, Associate Professor Mark Gussy, Dr Ben Keith.
- Dr Hanny Calache, Clinical Director Dental Health Services Victoria
- GP representative - Dr Albert Chan MBBS.
- Allied health representative – Dr Carol McKinstry.
- Bendigo and Districts Aboriginal Cooperative (BDAC) representative – Natasha Gardiner.
- Victorian Mental Illness Awareness Council – Liz Carr.
- Educational designer – Ms Kaye Knight LearnPRN.
- Bendigo United Friendly Society Pharmacies Pharmacist representative.
- Mental Health Consumer representative -Brendan Landy, Consumer Consultant Bendigo Health.

Convenor/Chair

The Chair, Associate Professor Amanda Kenny Director and Head of the Faculty of Health Sciences Bendigo Campus La Trobe University, shall convene the Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group meetings.

Agenda Items

All Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group agenda items must be forwarded to the Project Manager/ by C.O.B. seven working days prior to the next scheduled meeting.
The Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group agenda, with attached meeting papers will be distributed at least three working days prior to the next scheduled meeting.

The Chair has the right to refuse to list an item on the formal agenda, but members may raise an item under 'Other Business' if necessary and as time permits.

Minutes & Meeting Papers

The format of the Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group minutes shall be as Minutes.
The minutes of each Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group meeting will be prepared by the La Trobe University research officer.
Full copies of the Minutes, including attachments, shall be provided to all Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group members no later than seven working days following each meeting.

By agreement of the Critical Group, out-of-session decisions will be deemed acceptable at the discretion of the Project Manager. Where agreed, all out-of-session decisions shall be recorded in the minutes of the next scheduled Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group meeting.
The Minutes of each Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group meeting will be monitored and maintained by the Project Manager as a complete record as required under provisions of the Archives Act 1983.

Frequency of Meetings

The Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group shall meet in accordance with the communication plan.
A minimum of two weeks notice will be given to members to maximise attendance at Critical Group meetings.

Proxies to Meetings

Members of the Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group shall not nominate a proxy to attend a meeting if the member is unable to attend.

Quorum Requirements

A minimum of five Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group members is required for the meeting to be recognised as an authorised meeting for the recommendations or resolutions to be valid.
The quorum must contain at least one member(s) from the Bendigo Community Health, a representative of La Trobe University and a dental professional.
The above Terms of Reference for Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers Critical Group have been agreed to:

_____
Project Manager (name printed, signature, date)

_____
Critical Group representative (name printed, signature, date)

Appendix 3: The project communication plan

Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers.

Communication plan

What	Who	Purpose	Frequency	Format
Project commencement	Critical Group, Project Manager and Research Assistant(s).	Communicate plans and critical group roles/responsibilities. Encourage communication among critical group.	At or near project start date.	Meeting.
Critical reflection	Critical group.	To gain input from groups and keep them abreast of the project's status.	As critical phases or major enhancements are undertaken.	Face to face meetings with Web CT communication board to support interaction and enhance meeting agenda.
Status Reports	All stakeholders, Project Manager and Project Officer(s).	Update stakeholders on progress of the project.	Monthly.	Distribute electronically via web CT site. Hard copy available if preferred.
Project Team Meetings	Project Manager Research Assistant Health Science Faculty staff members	To review detailed plans (tasks, assignments, and action items). Review status reports, issues, and risks. To identify and communicate potential risks and issues that may affect the schedule, budget, or deliverables.	Fortnightly is recommended for entire team.	Meeting.
Post Project Review	All stakeholders, Project Manager and Research assistant	Identify improvement plans, lessons learned, what worked and what could have gone better. Review accomplishments.	End of Project.	Meeting/Report.
Other…	To be determined by the Project Team.	General communications.	As needed.	Lunch n Learns, email lists, announcements.

Appendix 4 Critical Group meeting proforma

Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers		
Date: **Time:** **Location:**		
In attendance:		
Apologies:		
Terms of Reference:		
Agenda		
	Presenter Name	Time (minutes)
Introduction and welcome		
Project Request & Background		
Project Goals & Objectives		
Project Scope		
Roles & Responsibilities		
Next Steps		
Questions		
Additional Information		
Handouts:		

Decisions		
Decision Made	Impact	Action Required?

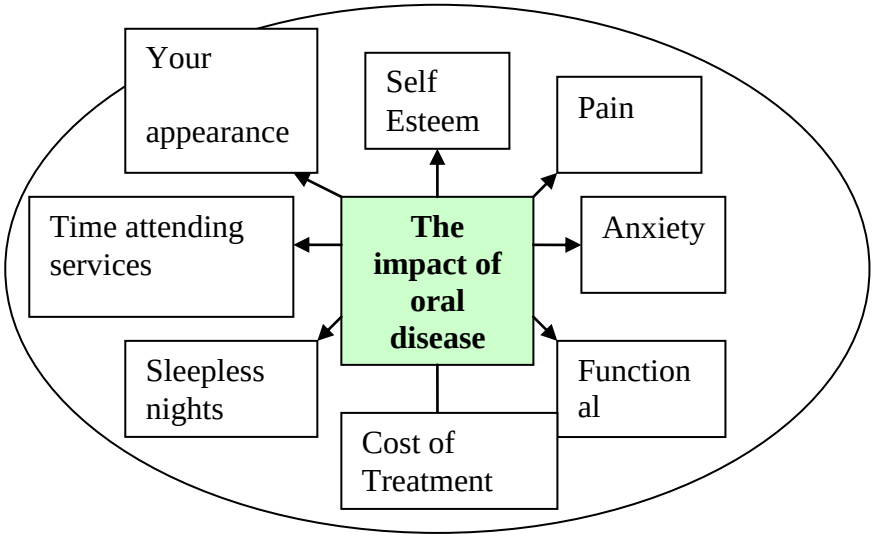
Issues		
Issue Description	Impact	Action Required?

Action Items for Follow Up		
Action	Responsible	Target Date

Appendix 5: The content of the CD and web page

<table>
<tr><th>First tier (icon)</th><th>Second tier</th><th>Third tier</th><th>Media</th></tr>
<tr><td>Your mouth, your life</td><td>Oral health is more than simply having a disease-free mouth, although that's important. The health of your mouth affects your sense of wellbeing and your appearance. Good oral health lets you take part in life without discomfort or embarrassment.

The health of your mouth can be a sign of your body's health. Mouth problems are not just cavities, toothaches, and crooked or stained teeth. Many diseases—such as diabetes, cancer, and some eating disorders—and some medications that are used in treating mental illness can cause oral health problems. Cavities and gum disease can be painful and lead to serious infections.

What impact can oral disease have on you.</td><td colspan="2"> 

Source: Modified from Department of Human Services (2004)</td></tr>
<tr><td></td><td>Medications can affect your oral health

Many medications including vitamins, minerals and herbal preparations can have a negative effect on your oral health. Almost half the number of people taking medication for diagnosed mental health conditions take at least one type of medicine that affects oral health.</td><td>Side effects from medications may include:
Altering taste. Some medications can cause a bitter or metallic taste or affect the ability to taste. Enlarged gum tissue. Overgrown or enlarged gum tissue is known as "gingival overgrowth". It is sometimes associated with anti-seizure medications.
Dry mouth. Dry mouth is a potential side effect of numerous medications. Drying irritates the soft tissues in the mouth which can make them inflamed and more susceptible to infection.
Greater risk of tooth decay. Sugar is frequently part of liquid medications, cough drops, vitamins, antacid tablets and anti-fungal agents. People who receive long-term medications may be at greater risk of developing tooth decay when they are using sweetened medications.</td><td></td></tr>
</table>

First tier (icon)	Second tier	Third tier	Media
	Poor oral health affects your whole life **Poor oral health can affect your general health and quality of life and well-being by causing considerable pain and suffering, and by changing what you eat and your speech.**	Overall health Good oral health is very important to good general health. Gum disease is a bacterial infection, so it can enter your bloodstream and may cause other health complications such as: **-** Heart disease People with gum disease may be more at risk of heart disease and with nearly twice the risk of having a fatal heart attack. **-** Stroke Oral infections may increase your risk of stroke according. **-** Diabetes People with diabetes are more likely to have gum disease which may make it more difficult for diabetics to control their blood sugar. Gum disease may increase the risk of developing diabetes, even in otherwise healthy people. **-** Respiratory problems Gum disease can increase the risk of respiratory disease such as pneumonia as bacteria that grow in the mouth can travel to the lungs. Self esteem and confidence If you have good teeth and a healthy mouth you'll generally be willing to smile and talk to people. Since that's a big part of how we all interact with each other, the state of your oral health can have a direct bearing on your self-esteem. Take care of your oral health and you won't be embarrassed about the state of your mouth when you need to deal with people socially, at work or on everyday business. Behaviour that looks after your oral health can also boost your confidence.	
	References	Jordan, R., Abrams, L., & Kraus, B. (1992). *Kraus' dental anatomy and occlusion*. St Louis: Mosby Elsevier Health Science. Woelfel, J., & Scheid, R. (2002). *Dental anatomy: its relevance to dentistry* (6th ed.). Pennsylvania Lippincott Williams & Wilkins. ADA. (2009). Your Oral Health. Retrieved 10/4/2009, from www.ada.org.au/oralhealth Colgate Palmolive Company. (2009). Colgate World of Care. Retrieved 10/4/2009, from http://www.colgate.com.au/app/Colgate/AU/HomePage.cvs	

First tier (icon)	Second tier	Third tier	Media
		p National Advisory Committee on Oral Health. (2004). *Healthy Mouths Healthy Lives. Australia's National Oral Health Plan 2004 - 2013*. Adelaide: National Advisory Committee on Oral Health.	
Harming your mouth health	Your lifestyle can harm the health of your mouth, especially if you behave in certain risky ways.		
	Diet	What you eat directly affects the health of your mouth. A diet high in sugar and fat, and low in fibre and essential vitamins, can lead to heart disease, stroke, obesity, diabetes, cancers and dental decay.	
	Smoking	Smoking can lead to many diseases including cancers of the lung, throat and mouth. Smokers are also more likely to have heart disease, diabetes and gum disease, as well as other diseases of the soft tissues of the mouth.	
	Alcohol	Alcohol drunk in large quantities increases the risk of general conditions such as high blood pressure, liver disease, heart disease and cancers of the mouth. It's also a factor in many social problems, and violence often results in fractures of the jaws and teeth.	
	Stress	Stress can play a major part in mouth disease. If you're under stress you mightn't be leading the healthiest lifestyle. Those choices can affect your oral health. Managing stress is a major part of maintaining good oral health.	Audio file 1
Recognising mouth problems			
	Get to know your mouth. Your mouth plays a part in eating, breathing forming speech sounds and expressing your feelings and emotions. Understanding the main parts of your mouth can help you improving the way your care for your oral health.	***Functions*** Your mouth has three main functions in digestion, breathing and talking. 1. You take food into your mouth and that's where digestion begins. It is actually the first part of the gastrointestinal tract. The digestive functions of the mouth include chewing and mixing food with saliva, starting the digestive process, swallowing and taste. 2. Your mouth is an air passageway and can be used for breathing when the nose is inadequate, as happens, for instance, during strenuous exercise. 3. Your mouth plays a vital part in speech. Alterations in	

First tier (icon)	Second tier	Third tier	Media
		the shape of the mouth and lips modify the sounds that are made by the vocal cords in such a way that they become recognisable as syllables. ***Anatomy*** The boundaries of the mouth are formed by the lips, cheeks, floor of the mouth, and palate. It contains the teeth and tongue and receives secretions from the salivary glands. The mouth, like many organs in the human body, is a hollow cavity. The part in front of the teeth is called the vestibule, while the part behind is the mouth itself. The floor of the mouth is formed from sheets of muscle tissue which are attached to the inner surface of the jawbone. The side walls are formed by the cheeks, which are flexible enough to allow the mouth to open and close. The roof of the mouth is formed by the palate, a thin sheet of tissue which separates the mouth from the nasal cavities above. At the back, the cavity of the mouth joins up with the pharynx, while at the front it communicates with the outside through the lips. Except for the teeth, the whole of the inner surface of the mouth is lined by mucous membrane. At the back, the membrane goes on to line the gastrointestinal tract, and at the front it is folded over to form the lips.	Image one
	Signs of a problem. Early detection and treatment of oral health problems can ensure a lifetime of good oral health.	• Dentures don't fit • Difficulty chewing • Sensitive teeth • Toothache • Painful gums • Discoloured or damaged teeth	Audio file 2

First tier (icon)	Second tier	Third tier	Media
	Types of problems Some dental problems might be symptoms of other serious health problems or diseases.	***Dental decay*** Dental decay is the most common disease that affects teeth. Decay is caused by plaque, a sticky film found on teeth. Bacteria found in plaque change sugars into acids which produce holes or cavities in teeth. Dental decay can be prevented. ***Gum disease*** Gum disease is also caused by plaque, which builds up on the gum line of teeth and causes gums to become inflamed. Eventually plaque may destroy the fibres and bone that hold teeth in place. ***Bad breath*** Bad breath is the name given to unpleasant odours exhaled when breathing. In most cases, bad breath originates in the mouth itself. The intensity of bad breath can change during the day as a result of eating certain foods, smoking, drinking alcohol or dryness of the mouth. ***Teeth grinding*** Teeth grinding is involuntary clenching, grinding and gnashing of the teeth. It generally happens during sleep, but some people experience it when they are awake. Teeth grinding can be a physical expression of stress; for example, susceptible people may tend to grind their teeth when they are angry, concentrating hard on a particular task or feeling anxious. ***Dry mouth*** Dry mouth syndrome is when there is not enough saliva (spit) in the mouth. A dry mouth is a symptom of an underlying problem, rather than a disease in itself. Various factors can cause a persistently dry mouth, including prescription medications, medical treatments and certain autoimmune diseases. ***Mouth ulcers*** Mouth ulcers are the loss or erosion of part of the delicate tissue that lines the inside of the mouth. Some of the causes include	Image two

First tier (icon)	Second tier	Third tier	Media
		certain drugs, chemicals and infectious diseases such as herpes or thrush. The most common cause is mechanical injury, such as accidentally biting your cheek. In most cases, mouth ulcers are harmless and resolve by themselves in a few days without the need for medical treatment. ***Mouth cancer*** Mouth cancer usually starts in the cells lining the mouth. The most common sites are the lips, tongue and floor of the mouth, but cancer can also originate in the gums, cheeks, roof of the mouth, hard and soft palate, tonsils and salivary glands. People over the age of 45 are at increased risk, with men twice as likely as women to develop these types of cancers. ***Headaches and migraines*** Headaches and migraines may be caused by problems with the teeth and jaw. Dental abscesses, post-extraction infection and difficulties with the joint of the jaw can cause pain in the local area, as well as referred pain to the face and head.	
It's easy to improve your oral health	Your mouth	**Clean your teeth** To remove dental plaque, you should brush your teeth at least twice a day (in the morning after breakfast and just before bed). Use a soft bristled toothbrush with a small head, and a fluoride toothpaste. **Floss regularly** Tooth brushing can't reach difficult areas between the teeth. Using dental floss at least once a day removes dental plaque effectively and cleans between the teeth. **Take care of oral piercings** If you have an oral piercing visit a dental professional every six months so the piercing and any potential damage to teeth can be monitored. Make sure the size and position of jewellery does not damage your teeth and gums. It is preferable to wear good quality plastic jewellery rather than metallic jewellery. To prevent damage to teeth and gums, remove jewellery before participation in sport and before sleeping. **Use mouth rinses** Mostly it is done after brushing. Using a mouthwash is one of the	Image three

First tier (icon)	Second tier	Third tier	Media
		best ways to keep your mouth fresh and free from bad breath. Not only that, it also helps to prevent gums from getting affected. Mouthwashes should not be considered substitutes for regular tooth brushing and flossing. **Get regular dental checkups** Regular dental check-ups, at least every two years, will help keep your teeth and gums healthy.	
	Click here to see one person's story of improving their oral health		Video 1
	Your lifestyle There are many lifestyle choices that can affect your oral health including mouth care habits, what you eat, smoking, sun exposure and mouth protection.	**Drink plenty of water, especially if fluoridated** Fluoridated water benefits people of all ages because it immediately acts to strengthen the outer surface of teeth making teeth stronger and more resistant to decay. **Eat a wide variety of nutritious foods** What you eat can help prevent oral health problems. The best food choices include cheeses, chicken or other meats, nuts and milk. These foods are thought to protect tooth enamel by providing the calcium and phosphorus needed to remineralise teeth. Other good food choices include firm/crunchy fruits and vegetables. These foods have a high water content (which dilutes the effects of the sugars they contain) and increases the flow of saliva (which helps protect against decay by washing away food particles and buffering acid). **Avoid eating acidic foods on their own** Acidic foods such as citrus fruits, tomatoes, should be eaten as part of a larger meal. This reduces the amount of acid to which your teeth and mouth are exposed. **Limit the amount of sugary foods and drinks you consume.** Limit the amount of sugary foods and snacks you eat, especially between meals. Milk and flavoured milks are preferable to other sugary drinks. If you do drink acidic and sugary drinks such as soft drinks, sports drinks, cordials and fruit juices, limit how often and how much of these you drink. **Limit the amount of alcohol you drink** Having high alcohol consumption may put you at higher risk for oral health problems, specifically having more teeth with	

First tier (icon)	Second tier	Third tier	Media
		decayed surfaces. **Quit smoking** Every time you inhale tobacco smoke, thousands of chemicals enter your body through your mouth. Smoking is a major cause of gum disease and other oral health problems: tarnished and stained teeth, bad breath, swollen gums, sore lips, and sore throat. Smoking is also a major cause of oral cancers. The most common sites for oral cancer include the lips, side of the tongue and under the tongue on the floor of the mouth. **Protect your face from the sun** Excessive sun exposure to the lips can put you at risk of developing oral cancer. **Mouth protection** If you play a sport that carries a risk of contact to the face, you should wear a mouth guard. A mouth guard helps absorb the shock of a blow to the face and can prevent an injury to your mouth or jaw.	
Meet your dentist	Who does what?	**Dental hygienists** Members of the dental staff who clean gums and teeth and teach patients how to maintain good oral health. **Periodontists** Dentists who treat gum disease and place dental implants. **Oral surgeons** Dentists who operate on your mouth and supporting tissues. **Orthodontists** Dentists who straighten teeth and align jaws. **Endodontists** Dentists who perform root canals. Root canal treatment is a dental procedure that replaces a tooth's damaged or infected pulp with a filling. The pulp consists of specialised dental cells, blood vessels, tissue fibres and some nerve fibres located in the hollow space in the central part of the tooth. **Prosthodontists** Dentists trained in restoring and replacing teeth.	
	What happens at a check up?	The dentist inspects each tooth using small instruments inserted into the mouth, including a mirror and a probe (a fine, pick-like tool). The dentist looks for problems such as decay or gum disease. If a suspected dental problem is difficult to see (for	Image four

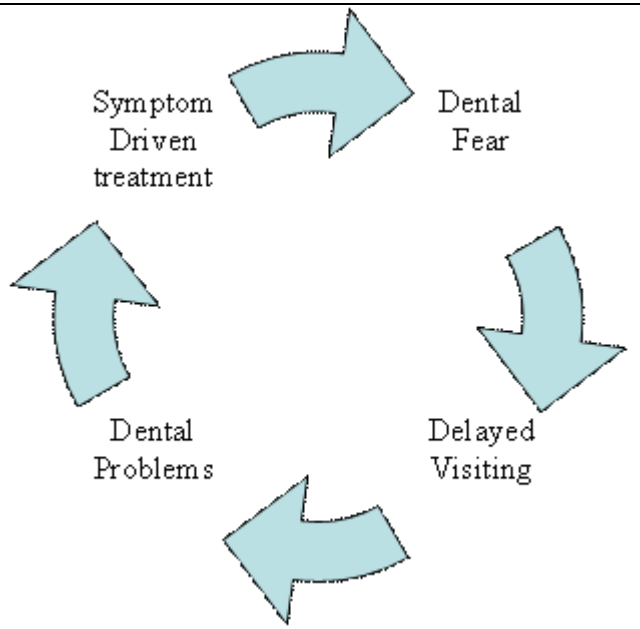
First tier (icon)	Second tier	Third tier	Media
		example, possible decay between two touching teeth) the dentist may take x-rays. If a dental problem is found, the dentist will explain the recommended treatment and give you an estimate of the cost and length of treatment. Most dental problems are scheduled for treatment at later appointments.	
	General questions to ask your dentist You and your dentist are partners in maintaining your oral health. Take time to ask questions and take notes if that will help you remember your dentist's advice.	1. How can I improve my dental health? 2. Should I change my toothpaste or floss more? 3. Should I use a fluoride rinse? 4. Is there an alternative treatment that I should consider as well? 5. How long will the procedure take and how many appointments are necessary? 6. What kind of anaesthesia is used, if any? 7. How much does it cost? 8. What experience have you with this procedure? 9. What should I expect after the procedure in terms of soreness, what to watch for, and any limitations? 10. Do you offer patient financing?	
	Victorian public dental agencies	Find an agency in metropolitan Melbourne [Refer metro table – *file name*] Find an agency in regional Victoria [Refer regional table – *file name*]	
	10 tips for find a good dentist	**1. ADA member** Look for a member of the Australian Dental Association (ADA). ADA Members agree to abide by a code of ethics and participate in on-going education. **2. Personal recommendation** Ask your friends, neighbours, co-workers, family doctor or previous dentist for their recommendation. 3. **Location** Is the dentist located near your home or work? Will the surgery be convenient for you? Ask about the availability of after-hours emergency services. **4. Communication**	

First tier (icon)	Second tier	Third tier	Media
		Consider the friendliness and helpfulness of the dentist and his/her staff. Are they willing to answer your questions and readily provide information? **5. Cleanliness** Is the practice clean, tidy and hygienic? If you have questions on infection control are they answered? Are instruments sterilised? Do staff wear gloves and masks, and offer you protective eyewear? **6. Respect** Does the dentist appreciate that your time is important, allowing, of course, for the unpredictability of some procedures, e.g. emergencies? **7. Medical history** Does the dentist take interest in your medical and dental history and listen to your concerns about having dental treatment? **8. Examination** Does the dentist examine all your teeth and your gums thoroughly and regularly? **9. Options and estimates for treatment** Does the dentist give you treatment options and explain them so that you understand? Does the dentist give you pre-treatment cost estimates and tell you of variations as they occur? **10. Shared planning** Does the dentist have a long-term view of your dental health, with a plan that you arrived at together, including seeing you regularly to help maintain optimal health?	
	References	Queensland Government. (2008). *Dental Emergencies*. Brisbane: Queensland Health. Better Health Channel, & Dental Health Services Victoria. (2009). Teeth care Retrieved 5/04/2009, from http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Teeth_care?OpenDocument Dietz-Bourguignon, E. (1999). *Dental Office Management*.	

First tier (icon)	Second tier	Third tier	Media
		Clifton Park: Cengage Learning.	
Dental emergencies	What counts as an emergency	A dental emergency is characterised by severe trauma to any part of the mouth. Problems that may be a dental emergency include: - Toothache - Knocked out tooth - Chips, fractures and cracks - Bitten lips or cheeks - Abscesses and swelling - Excessive bleeding from the mouth - Jaw pain	
	What to do in an emergency	***Toothache*** First rinse the mouth with warm water to remove debris. If swelling is present, place a cold compress to the outside of the cheek (do not use heat).Take paracetamol rather than aspirin, as aspirin thins the blood. Do not place aspirin on the gum or aching tooth. This causes soft tissue to burn. Always seek dental treatment as soon as possible. ***Knocked out tooth*** If a permanent tooth is knocked out, it can be saved but immediate action is required. Remain calm and find the tooth. Handle the top of the tooth only (the crown). Never hold the tooth by its roots. Do not scrape, rub or remove any tissue fragments from the tooth. Make sure the tooth is clean. If the tooth is dirty, rinse it in milk or very briefly in water. Alternatively, the owner can gently suck the tooth although this is not recommended for young children or adults who are unconscious, in shock or not fully calm and cooperative. Immediately replant the tooth in the socket and hold tooth in place. If unable to replant the tooth, keep it moist by immersing it in milk, sealing it in plastic wrap, or placing it in the owner's mouth next to the cheek (if the owner is able).Do not let the tooth dry	Image five

First tier (icon)	Second tier	Third tier	Media
		out. Seek immediate dental care - time is critical. ***Chips, fractures and cracks*** If a tooth chip or fracture is only minimal and there is no soft tissue trauma and no pain, do not panic. Seek dental advice within 24 hours. If the tooth chip or fracture is large, seek dental advice as soon as possible. Look for any sign of 'pink' as this indicates the nerve is exposed. If the nerve is exposed, seek immediate dental treatment. Delaying treatment may mean the tooth cannot be saved. ***Bitten lips or cheeks*** A lip or cheek can be bitten during eating, as a result of a fall or after local anaesthetic. If the numb area is sucked, bitten or rubbed, it can be damaged without you realising. The traumatised area often looks like an unsightly chemical burn and may be misdiagnosed as such. When feeling returns to the area, it may be very sore. Swelling and infection may also occur. Treat a bitten lip or cheek with warm, salty mouth rinses to promote healing. Seek advice from a dental professional if an infection occurs. ***Abscesses and swelling*** Dental abscesses are pus-filled swellings caused by infection inside a tooth, infection of the gum and/or trauma to the tooth. Abscesses are often, but not always, painful. Dental abscesses can cause facial swelling and/or enlarged lymph glands. For dental abscesses control moderate pain with over-the-counter pain medication. Take this in the usual way and do not apply the medication to the abscess itself. Use cold compresses to help control swelling. A dental professional or doctor may prescribe antibiotics to reduce infection. However, antibiotics will not remove the source of infection. Seek prompt dental treatment. An abscess will not heal itself, and antibiotics will not fix the problem.	

First tier (icon)	Second tier	Third tier	Media
		Soft tissue trauma and bleeding Apply a clean bandage or folded handkerchief to the wound and apply firm pressure. Sit down and maintain the pressure for at least ten minutes. Don't lie down flat. If the bleeding cannot be controlled, seek immediate medical attention. Apply a cold compress to relieve swelling and pain. Seek dental or medical advice. Use warm, salty mouth rinses until the wound has healed to reduce the risk of infection. ***Jaw pain*** If you are having trouble eating or opening your mouth due to jaw pain, or experience jaw pain on waking, seek medical or dental care. It is important for a dental professional or doctor to diagnose the source of the jaw pain. To alleviate jaw pain in the short term, apply a cold compress or take anti-inflammatory medication.	
	References	Douglass, A., & Douglass, J. (2003). Common Dental Emergencies. *American Family Physician, 67*, 511-516. *Andreasen, J., & F, A. (1994)*. Textbook and color atlas of traumatic injuries to the teeth *(3rd ed.)*. *Copenhagen: Munksgaard.*	

First tier (icon)	Second tier	Third tier	Media
Understanding dental fear	Dental fear is a very real issue for a lot of people. It is important that people try to understand their fear as it does impact on getting dental treatment. Click here to look at the vicious cycle of dental fear to see if you can identify with this model. Click here to listen to one person's story of dental fear	 The vicious cycle of dental fear (Armfield 2007)	Audio file 3
	Recognising anxiety Symptoms of anxiety can vary, depending on whether your anxiety is general or you have been diagnosed with a specific disorder. Symptoms can be both psychological and physical.	• High blood pressure • Irregular breathing • Feelings of loss of control • Sweating • Nausea • Nervous stomach	

First tier (icon)	Second tier	Third tier	Media
	Dealing with anxiety. Let's look at an overall approach to dealing with being anxious.	1. **What's the cause?** First, look inside. What is causing you to worry? Be specific. Writing in a journal or talking to a friend about it can help you sort out your feelings. 2. **What part of the situation is under your control?** Once you've identified the cause,, decide what action should be taken. Try to figure out what part of the situation is under your control. Assess the problem to see whether the threat is real, or if you are blowing it out of proportion. If the problem is just a hypothetical situation or a worst-case scenario, decide if it is really likely that your fears will actually come to fruition. 3. **Make a plan** Next, come up with a plan that tackles the part of the problem that is under your control. Taking action to protect yourself is a good way to channel nervous energy and provides reassurance against your fears. It is, in most cases, the healthiest response to realistic fears and worries. 4. **Just let it go** Once you have done all you can, just let it go. Like everything in life, this is easier said than done, but with practice, you can get pretty adept at letting go of excessive levels of stress and anxiety. You can do this by focusing on something else, reminding yourself of the solutions you have worked on, or trying some stress management strategies that can help you feel more centred and at peace, such as prayer or meditation, journaling about your feelings, or listening to music. (Adapted from Scott 2007)	

First tier (icon)	Second tier	Third tier	Media
	References	Armfield, J., Stewart, J., & Spencer, J. (2007). The vicious cycle of dental fear: exploring the interplay between oral health, service utilization and dental fear. BMC Oral Health, 7(1), 15. Scott, E (2007) How to deal with stress and anxiety in four simple steps. Accessed on April 28th 2009 at About.com Health's Disease and Condition.	

Health professional level

First tier (icon)	Second tier	Third tier	Media
Pharmacology awareness	A number of medications can impact the oral health of clients. Studies suggest that about 40 % of people take at least one type of medicine that affects oral health. Drugs associated with the treatment of medically diagnosed mental health condition in particular have a direct and indirect impact on oral health.		
	Behaviour altering agents	When medications that affect the central nervous system are taken for an extended period of time oral health can be negatively affected. As an example, psychotropic drugs may cause lethargy, fatigue and memory and motor impairment hamper a person's ability to practice good oral hygiene. Centrally acting analgesics and antiepileptic drugs may also have this effect. Medications may include Lithium Carbonate, Lithium Citrate, Carbamazepine, Epilim, Lamictal.	
	Agents that cause dyskinesia and dystonia	Dyskinesia and dystonia are distressing side effects of long term anti-psychotic medication characterised by abnormal, involuntary movement of the tongue or facila muscles, sometimes associated with abnormal jaw movements. Tongue protrusion and retraction, and facial grimacing are frequent presentations. These symptoms pose problems for patient, carer and the dental health team in providing routine dental care. Dyskinesia poses difficulties in the construction of retentive dentures and interferes with the client's ability to manage and control dentures.	

	□ Medications that alter plaque composition and pH	When sugar is the major component of a medication such as in many liquid medications, the plaque composition and pH of the mouth may be affected. This in turn creates an increased susceptibility to dental caries. Examples include Liquid Sodium Valproate (Epilim) and Phenytoin (Dilantin).		
	□ Agents that affect salivary flow and pH	Xerostomia, commonly known as "dry mouth" is a side effect of approximately 400 different medications. This condition is detrimental to oral health as saliva plays a major role in protecting both the soft and hard tissues in the mouth. Saliva reduces the population of bacteria in the mouth, cancels out decay-causing mouth acids and contains substances crucial to the ongoing process of re-mineralisation. Oral candidiasis is one of the major side effects of drugs that dry the mouth. These people also suffer from an increased incidence of coronal and root surface caries. Those medications that mental health clients may take that cause xerostomia include antidepressants, sedatives, centrally acting analgesics, anorexiants, anti-anxiety agents, and anticonvulsants, antipsychotics, SSRIs.		
	□ Agents that affect oral mucosa	Some medications predispose patients to erythema multiform or lichenoid lesions. These conditions sometimes present as multiple aphthous ulcers. When medication-associated they usually have an onset of days to weeks after commencement of the drug and resolve when the drug is ceased. The medications used to treat mental illness most commonly associated with this condition are barbiturates, Carbamazepine, and Phenytoin.		
	□ Agents that alter taste	Taste alteration (also known as dysgeusia) is associated with some medications. Taste changes may range from bitter to metallic. Medications used to treat mental illness that may cause this condition include Dexamphetamine sulphate.		

	Agents that cause gingival enlargement	A number of medications cause gingival enlargement. Gum problems can lead to bleeding and ulceration of the gums and may lead to other dental problems such as tooth loss. Phenytoin was the first drug reported to have this effect with up to 62 % of clients reporting this side effect. Antidepressants and antihypertensive drugs. May also effect the gingival surfaces.	
	Agents that can affect alveolar bone	Long-term use of some medications may result in osteoporosis, which is mainly seen in the long bones but may also occur in the alveolar bone. Clients taking enzyme-inducing antiepileptic drugs such as Phenytoin, Phenobarbital and Carbamazepine may experience lower bone mineral density.	
	References	Adapted from Ciancio, S. (2004). Medications' impact on oral health. *JADA, 135*, 1440-1448. Better Health Channel, & Australian Dental Association Victorian Branch. (2009). Teeth and drug use. Retrieved 14/3/2009, from http://www.betterhealth.vic.gov.au/bhcv2/bhcArticles.nsf/pages/Teeth_and_drug_use?OpenDocument Griffiths, J., Jones, V., Leeman, I., Lewis, D., Patel, K., Wilson, K., et al. (2000). *Oral Health Care for People with Mental Health Problems: Guidelines and Recommendations*. London: British Society for Disability and Oral Health	

Mental Illness: the impact on oral health	There are a number of factors that influence the oral health of mental health clients, with some of these factors mitigating against self care and negatively affecting routine access and provision of oral care. Poor oral health impacts negatively on nutrition, speech, appearance, self-esteem, social interactions and life opportunities. Treating this client group is also often difficult and time-intensive due to complex treatment needs, the need for a break during treatment, unpredictable behaviour and difficulty in obtaining a medical history requiring consultation with other health professionals.		
	☐ Type, severity and stage of mental illness	Fear, anxiety and dental phobia are significant factors which influence acceptance of dental care. Symptoms associated with psychotic illness may severely interfere with the acceptance of dental care, delaying treatment until tooth loss is inevitable. Access to prompt treatment under sedation and general anaesthesia is essential for those whose disability or anxiety limits their ability to co-operate for routine care.	
	☐ Client's mood, motivation and self-esteem	These are important factors that influence compliance with oral self-care and all aspects of personal hygiene. This is particularly notable in individuals suffering from dementia or memory loss. Lack of interest and low self-esteem associated with the disorder are factors that contribute to inadequate self care and regular dental attendance. Depression is also often associated with a disinterest in oral self-care.	
	☐ Lack of personal perception of oral health problems	This is related to a number of factors such as mood, motivation, self-esteem, ability to think logically, accept and understand the treatment plan, and ability to cooperate with dental treatment. Dementia affects an individual's ability to accept dental care. For some, access to emergency pain relief will be the only requirement whereas others may be unable to cope or cooperate with treatment despite an urgent or perceived need. Mental health clients also often have poor knowledge of oral side effects of psychiatric medications despite high usage over long periods of time.	

	☐ Client's habits, life-style and ability to sustain self-care and dental attendance	People with mental health problems by virtue of their illness, disease, lifestyle or cultural practices are at greater risk or poor oral health. Oral health and dental management may also be compromised by medical problems associated with alcohol abuse, drug addiction, smoking, stress, eating disorders as well as prescribed medication. Behavioural factors may lead to poor compliance, unreliable attendance and late cancellations of appointments. Such behaviour is often a source of frustration and sometimes bewilderment, resentment and hostility toward staff delivering the service. Chronic and significant oral health disease is noted in this group of the population with extensive unmet oral health needs, including high need for gum treatment, restorations and extractions. A legacy of institutionalism has meant that some patients have required full dental clearance. Fear, anxiety and perceived inability to meet the perceived cost of treatment may contribute to irregular attendance. Dental treatment may have a low priority in the context of ill health, poverty or homelessness particularly if there is not a perceived need. Lack of knowledge on how to access information or services as well as a fear of dental treatments are barriers to oral health care.	
	☐ Environmental factors which mitigate against preservation of self-care		
	☐ Socio-economic factors which limit choices for healthy living		
	☐ Language and culture		
	☐ Lack of information on how to access information or dental services		
	☐ Oral side effects of medication	Oral and systemic side effects of medication used to treat mental illness are common and detrimental to the overall oral health of the client. The most common side effect is xerostomia (dry mouth). This has a significant impact on oral health and increases the risk of dental caries, periodontal disease and oral infections such as candidiasis, glossitis, and generalised stomatitis. In extreme cases it may cause acute inflammation of the salivary glands. A client with this condition will often consume sugary drinks, lollies and food in order to increase salivation, which in turn increases caries and gum disease.	
	☐ Attitudes of health professionals	The attitudes, knowledge and skills of health professionals and the dental team in providing care for people with mental health problems may affect access to information and oral care services. Attitudes to and knowledge of	
	☐ Dental team's attitudes and knowledge of mental health problems		

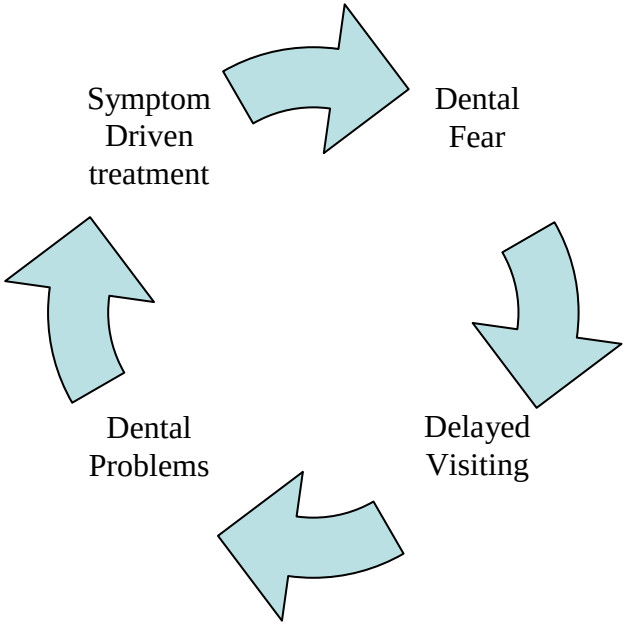
	Local dental personnel unable or unwilling to provide adequate dental care	causes and effects of oral disease among health professionals and healthcare workers are issues that have been identified as barriers for mental health clients. There may be a lack of or inadequate dental facilities and lack of support for continuity of dental care on discharge from hospital or residential care. There is a need for more extensive collaboration between mental health, social and oral health care sectors.	
	References	Adapted from: Griffiths, J., Jones, V., Leeman, I., Lewis, D., Patel, K., Wilson, K., et al. (2000). *Oral Health Care for People with Mental Health Problems: Guidelines and Recommendations*. London: British Society for Disability and Oral Health Burchell, A., Fernbacher, S., Lewis, R., & Neil, A. (2006). "Dental as Anything" Inner South Community Health Service Dental Outreach to People with a Mental Illness. *Australian Journal of Primary Health, 12*(2), 75-82. Yarra Oral Health. (2002). *Oral Health for People with a Mental Illness*. Yarra: North Richmond Community Health Centre.	
Identifying people who may have complicated dental care	Dental Care is becoming increasingly polarised in Australia. Apart from social class, other factors and conditions may impact on a person's ability to access dental care and maintain good oral health. • Low income	Access to dental services is difficult for people with low incomes. The public dental waiting lists are very long and private dental costs are often far outside the financial capabilities of this group. This means that these people often do not seek dental care and consequently oral health is poor.	

	• People with developmental disabilities	People with developmental disabilities typically have more oral health problems than the general population. Contributing factors include poor oral hygiene, physical and mental disabilities. This group often have damaging oral habits. These include bruxism (teeth grinding), food pouching, mouth breathing and tongue thrusting. These habits may also include self-injurious behaviours such as picking at the gums, biting lips, rumination (where food is chewed, regurgitated and re-swallowed) and pica (eating objects such as gravel, sand, cigarette buts or pens).	
	• People with facial disabilities/anomalies	Some people may have oral malformations such as enamel defects, high lip lines with dry gums, variations in the size, number and shape of teeth, and malocclusion. Malocclusion may increase the risk of tooth decay and cause excessive pressure on the temporomandibular joint.	
	• People with conditions that affect communication functioning	Some people who suffer from conditions such as autism and psychiatric conditions such as schizophrenia have communication and behavioural problems that pose significant challenges for the client in obtaining care and for the professional providing care.	
	• People with conditions that cause unusual and unpredictable body movements	These movements can jeopardise the safety of both the client and the oral health professional. Some conditions in which this may occur are autism, Tourette's syndrome, Parkinson's disease, and acquired brain injury.	

	• Older people, particularly those institutionalised	Older people often have chronic and complex health problems. This often also means complex medications which may further impact on oral health (see Pharmacology awareness [link to Pharmacology awareness section]). Older people often have misconceptions regarding their oral health including: • tooth loss is a normal part of ageing • denture wearers do not need regular dental checks, and dental decay is a disease of the young • dry mouth is always age-related • you should only see a dentist when in pain and finally • not everyone who smokes gets oral cancer so why stop smoking? Oral health remains important for older people as pain and difficulty eating can quickly lead to nutrition deficits; dry mouth associated with medications can affect appearance, speaking and eating; dental issues can lead to social isolation and self-esteem problems. Poor oral health may also complicate other health conditions such as diabetes, cardiovascular disease and respiratory health due to aspiration. Those older people reliant on others for oral care may not receive adequate care in this area.	
	• People with cognitive impairment	People with cognitive impairment including dementia (poor memory, attention span and problem solving capability) may experience a decrease in the ability to learn and maintain the skills associated with oral health. Compliance with both oral care and attendance at dental appointments may also be impacted.	

	References	Adapted from: National Institute of Dental and Craniofacial Research. (2008). Practical Oral Care for People with Developmental Disabilities. Bethesda: National Institute of Dental and Craniofacial Research. Spencer, J. (2004). *Narrowing the inequality gap in oral health and dental care in Australia*. Sydney: Australian Health Policy Institute: The University of Sydney. Rural and Regional Health and Aged Care Services Division. (2002). *Oral Health for Older People*. Melbourne: State of Victoria: Department of Human Services.	
Facilitating improved oral care	There are a number of ways in which oral care can be promoted to those clients for which dental care may be complicated. Apart from fundamental dental care and health promotion for these people, professionals should promote and facilitate access to special governmental programs to improve access for these people. • Do not assume people have basic oral hygiene skills • Determine the abilities of the client	Maintenance of an individual's oral health through their personal hygiene requires that they have an appropriate level of resources, skill and understanding. Not all adults and children have been taught the correct procedure to clean their teeth. This is compounded by conditions that then affect movement, memory, compliance, and capacity to maintain oral health. The parent or carer of the client is the best source of information regarding intellectual and functional capabilities and tolerance. Communication can then also be tailored to a level appropriate to the client. This information should be included in any communication with other health/dental professionals about this client.	

	• Plan a short desensitisation appointment	Sometimes familiarisation with an environment prior to any kind of treatment can be beneficial in facilitating a less complicated appointment. The client can become familiar with the environment, staff and equipment over one or a number of visits. The use of a toothbrush and brushing of teeth (a familiar object) may be the best way to gain initial access to the mouth of a client.	
	• Preventative measures for self-injurious behaviour	Those clients for whom self-injurious behaviour is a problem may benefit from a mouth guard if they will tolerate it.	
	• Facilitate improved attendance	If a client has difficulty maintaining appointments, steps to help improve attendance can include reminder calls, reminder letters and/or direct contact with a carer.	
	References	DHS. (2003). *ORAL HEALTH IS BETTER HEALTH Oral Health Guidelines for Victorians*. Melbourne: Department of Human Services. National Institute of Dental and Craniofacial Research. (2008). Practical Oral Care for People with Developmental Disabilities. Bethesda: National Institute of Dental and Craniofacial Research.	

The reality of dental fear	Over recent years there have been considerable advances in both pain control and patient management of dental fear however dental fear remains a serious issue for clients and oral health professionals. A recent Australian study found associations between dental fear and less frequent visits to the dentist, poorer oral health, and greater functional impairment. Dental fear becomes part of a downward spiral of circumstances that put the oral health of sufferers at high risk.  The vicious cycle of dental fear (Armfield, 2007)		

	• The process of dental fear	A number of components have been found to contribute both to the presence of dental fear but also the severity of the fear. **Threat of loss of autonomy/independence** • Fear of dying • Fear of suffocating • Fear of losing control **Vulnerability** • Traumatic life history • Anxiety-prone personality • Negative preconceptions about dental care **Unsupportive dentist** • Perceived lack of empathy and respect • Doubts about dentist's skills • Perceived lack of support from dental team **Threat of violation** • Threat of violation • Feelings of powerlessness • Feelings of being deserted and vulnerable	
	• Women vs. men and dental fear	Research has found that women report higher levels of dental fear in relation to specific stimuli and procedures. These include fillings, tooth extraction, a scale and clean, a check-up, gum treatment, and a dental crown or bridge.	
	• Dental fear and socio-economic background	People from lower socio-economic backgrounds generally experience poorer oral health. It is yet to be established whether or not people from lower socio-economic backgrounds have higher levels of dental fear as a result of differences in dental treatment they receive.	

	• Delayed visits	Studies show that 12 monthly or less frequent visits to the dentist are associated with less dental fear. Those who visit the dentist once every two years or more rated themselves very afraid.	
	• Symptom driven care	Preventative oral health for people with dental fear is problematic. These people are less likely to make appointments for preventative treatment and maintenance of oral health. Appointments are usually only made and kept when the client is in pain or is experiencing a dental emergency.	
	• Previous trauma	It is logical to assume that people suffering from severe dental anxiety would have experienced a traumatic dental event that led to subsequent fear. However, studies show that many highly anxious people cannot recall a specific event,. Instead vulnerability and threat of violation (a mistake that causes pain) is the base of the fear.	
	• Appointments for clients with dental fear.	A number of different methods and tools have been developed to help with the dilemma of dental fear. Some of these methods include: • Developing a signal like a raised hand which the client can use to indicate they need a break • The oral health professional taking the time to give thorough explanations to the client • Giving a client the opportunity to record their fears and preferences for dental care using a questionnaire which is then kept as part of dental records • Making sure that reception and other staff are aware of a client presenting who suffers from dental fear. (Often fear can escalate while waiting therefore understanding staff may help the client to cope.) • Allocating additional appointment blocks to special needs clients including those with dental fear.. •	

	References	Armfield, J., Stewart, J., & Spencer, J. (2007). The vicious cycle of dental fear: exploring the interplay between oral health, service utilization and dental fear. *BMC Oral Health, 7*(1), 15. Armfield, J., Spencer, J., & Stewart, J. (2006). Dental Fear in Australia: who's afraid of the dentist? *Australian Dental Journal, 51*(1), 78-85. Klages, U., Sadjadi, Z., Lojek, L., Rust, G., & Wehrbein, H. (2008). Development of a questionnaire measuring treatment concerns in regular dental patients. *Community Dental and Oral Epidemiology, 36*, 219-227. Abrahamsson, K., Berggren, U., Hallberg, L., & Carlsson, S. (2002). Dental phobic patients' views of dental anxiety and experiences in dental care: a qualitative study. *Scandinavian Journal of Caring Sciences, 16*, 188-196.	

Appendix 6:The National Rural Health Conference program

D5 Workshop	D6 *beyondblue* stream	D7 Men's health	D8 Arts-in-health: Capacity building	D9 Kicking the habit
Chair: Owen Allen **Meeting Rooms 5 and 6**	Chair: Bruce Simmons **Hall D**	Chair: Terry Battalis **Hall C**	Chair: Arts Nexus Inc. **Meeting Room 8**	Chair: Rob Curry **Meeting Room 9**
Scribe: Andree Laherty	Scribe: Stacey Parker	Scribe: Sam Gubicak	Scribe: Peter Brown	Scribe: Courtney Harrington
Alcohol in the bush—drinking culture under the microscope David Templeman, Wayne Fluqge, Grant Akesson	*beyondblue's rural initiatives* Leonie Young	*Fatal motorcycle crashes in northern Queensland: characteristics and potential interventions* Ross Blackman, Dale Steinhardt, Craig Veitch	*Access Arts Link* James Newton, Kim Schneiders	*Give up the smokes: a smoking cessation program for Indigenous Australians* Gillian Gould, Amy McGechen
	Community engagement for suicide prevention in south-western Australia Beth Jackson, Marina Johns, Cis Narkle	*Supporting rural communities in raising awareness of men's health issues* Megan Cock, Carol Holden	*Disseminate* Natalie Georgeff, Andrea Lewis	*Tobacco reduction research and intervention: a catalyst for addressing high rates of smoking in remote Aboriginal communities in the Northern Territory* Jan Robertson, David MacLaren, Anil Raichur, Alan Clough
	Capacity building in the mental health community sector in rural and regional Queensland Noela McKinnon, Mandy Coxall, Sandy Paton, Sarah Smallman	*Reducing early mortality of Indigenous and non-Indigenous males in rural and remote Australia* Bernard Denner	4.30–5.15 pm *Promoting health* Panel session	*Stop smoking in its tracks: understanding smoking by rural Aboriginal women* Megan Passey, Jenny Gale, Brenda Holt, Catherine Leatherday, Careena Roberts, Delta Kay, Laurel Rogers, Virginia Paden
	Translating evidence to practice: improving oral health outcomes for rural mental health clients Amanda Kenny, Mark Gussy, Ben Keith, Susan Kidd	*Men's sheds: a strategy to improve men's health* Gary Misan, Peter Sergeant		*The Remote Area Health Corps: an update* Lisa Studdert

Appendix 7: The Rural Health conference abstract

Translating evidence to practice: improving oral health outcomes for rural mental health clients.

The *Healthy Horizons Framework* highlights the importance of oral health and the significant issues surrounding mental health. In Australia, poor oral health makes a major contribution to the burden of disease. The *National Oral Health Plan* provides evidence of some improvement in the oral health status of the broader community. However, the plan identifies that the 'gap between the oral health status of the advantaged and the disadvantaged is substantial and increasing'. Mental health clients are identified in this plan as one of the major disadvantaged groups facing significant issues around declining oral health.

Studies have indicated that the mainstreaming of psychiatric care has resulted in the responsibility for oral health being placed with mental health clients who face many barriers in accessing this care. Little has been reported about the oral health status of Australians with mental health problems; however, international reports consistently show significantly higher levels of dental disease. Key national and international reports have identified the major issues that impact on improved oral health for mental health clients. These factors include the type of mental illness, client motivation and self esteem, dental phobias, understanding of the importance of oral health, socioeconomic factors, lack of understanding of how to access dental services, and the impact of pharmacology used in psychiatry. Importantly, oral health knowledge and attitudes of health professionals and dental professional's attitudes and knowledge of mental health problems have been identified as major mitigating factors that impede improved oral health outcomes for mental health clients. It has been argued that the impact of poor oral health amongst mental health clients extends well beyond dental issues and is a major contributor to a mental health clients self esteem and social acceptance.

Data collected in rural Victoria reflects the international literature, that is, mental health clients have poor oral health outcomes. In the rural context, barriers to accessing appropriate services and the social impact of poor oral health are significant. Utilising collaborative action research, by a multidisciplinary team, including consumers, this project demonstrates how the evidence of poor oral health outcomes for mental health clients can be translated to practical, evidence based programs designed to improve attitudes and knowledge related to mental health and oral health. The project is underpinned by community development and participative approaches that have developed new collaborative networks and strengthened the capacity of health professionals and their clients to achieve better oral health.

Appendix 8: The conference paper

TRANSLATING EVIDENCE TO PRACTICE: IMPROVING ORAL HEALTH OUTCOMES FOR RURAL MENTAL HEALTH CLIENTS.

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INTRODUCTION

In 2001, the Australian Health Ministers Advisory Steering Committee for National Planning on Oral Health released their final report, *Oral Health of Australians: National Plan for Oral Health Improvement.* Building on this report, in 2004, the National Advisory Committee on Oral Health released *Healthy Mouths Healthy Lives: Australia's National Oral Health Plan 2004–2013.* The key features of this plan highlighted the importance of oral health and the significant financial and social burden that poor oral health has on Australia. Importantly, the plan identified, that whilst there have been some improvements in the oral health status of the broader community, the 'gap between the oral health status of the advantaged and the disadvantaged is substantial and increasing'.

A major action area of this plan was to improve the oral health of people with special needs, including individuals with mental health issues. Socio-economic disadvantage and people in rural and regional locations were highlighted as key areas that should be targeted for improvement in oral health outcomes. An important key strategy proposed in the National Oral Health Plan was to develop oral health educational modules to improve the knowledge and skill level of health and community service professionals.

The *Healthy Horizons Framework* provides a blueprint for the improvement of the overall health status of rural communities and highlights both the importance of oral health and the significant issues surrounding mental health. The project reported in this paper brings together the key areas of oral health and mental health, and proposes a plan to support, educate and train health professionals and consumers by focusing on a key issue, the oral health of mental health clients. It develops and encourages collaborative partnerships between interdisciplinary health professionals and consumers through the development of processes and materials that are available for wider dissemination.

THE PREVALENCE OF MENTAL HEALTH ISSUES

Key surveys have indicated that the prevalence of mental health problems in Australia is significant, supporting the inclusion of mental health as one of the country's seven National Health Priority Areas [1]. In Australia, it is estimated that 16.1% of males and 7.8% of females have a significant mental disorder [2]. A major report on young people's mental health indicated that approximately 500,000 Australians aged between 4-17 years have serious emotional and behavioural health problems [3] and in the 18-24 age brackets, 27% of males and 26% of females are deemed to have a significant mental health problem [4].

Since the early 1990s, there have been major changes to the way in which mental illness has been managed in Australia and reforms have been implemented that have been driven by the three Plans of the National Mental Health Strategy [5]. The focus has been on 'mainstreaming' mental health care, by increasing the focus on community based care. Consistent with this strategy, in Australia in 2003-2004, there were almost five million mental health service contacts in outpatient and community based mental health services [2].

ACCESS TO SERVICES

The increasing incidence of mental health issues in the community creates an enormous demand on primary health services. Health policy in Australia and internationally focuses on ensuring that mental health clients receive appropriate care, support, treatment and follow up [6]. In any setting, mental health clients face many challenges in accessing services but in the rural context, consumers are further disadvantaged and marginalised by the lack of appropriate public health infrastructure, lack of access to primary health services and issues of confidentiality and stigma associated with living in a rural environment [7]. The main providers of mental health services in rural areas include GPs, community mental health nurses and workers, occupational therapists, social workers, dieticians, psychologists and psychiatrists [6].

ORAL HEALTH

In Australia, poor oral health makes a significant contribution to the burden of disease measured in terms of disability adjusted life years (DALYs) and oral health care is currently one of the major reasons for hospitalisation [8]. In 2003, 5.1 billion dollars was expended on dental care and it is estimated that by 2033 dental health expenditure will increase by 144% [9].

The National Oral Health Plan [10] identified mental health clients as one of the major disadvantaged groups facing significant issues around declining oral health and poor access to dental services. Studies have indicated that the mainstreaming of psychiatric care has resulted in the responsibility for oral health being placed with mental health clients who face many barriers in accessing this care [10].

MENTAL HEALTH AND POOR ORAL HEALTH OUTCOMES

Little has been reported about the oral health status of Australians with mental health problems; however, international reports consistently show significantly higher levels of dental disease [11,12]. Key national and international reports have identified the major issues that mitigate against improved oral health for mental health clients [6,10]. These factors include the type of mental illness, client motivation and self esteem, understanding of the importance of oral health, socioeconomic factors, and lack of understanding of how to access dental services. Studies have suggested that mental health clients have poor oral health practices and avoid dental visits and brushing of teeth [13]. Issues such as poor diet, and heavy cigarette smoking contribute to the oral health concerns of mental health clients [14].

The impacts of oral health adverse effects that arise from common pharmacology used in psychiatry are consistently identified in the literature [15]. Xerostomia (lack of saliva causing dry mouth) can lead to increased plaque, calculus formation, dental caries, periodontal disease, enamel erosion, oral candidiasis and perleche [15]. Australian prescriber guidelines indicate that most antidepressants cause xerostomia, with trycyclic antidepressants and selective serotonin reuptake inhibitors having a major impact on oral health as a result of prolonged diminished salivary function [15]. Conversely, cholinergic agonism, a common adverse affect of clozapine, a popular antipsychotic, results in sialorrhoea or hypersalivation which can lead to dribbling and face soreness. The potential impact of methadone on oral health is regularly reported within the literature [15]. Excessive dental damage is associated with bruxism (excursive movement of the jaw with grinding of the teeth), an adverse effect arising from psychotropic medication [15]. Studies have indicated that only a very small percentage of mental health clients have any understanding of dental caries and conditions such as atypical odontalgia, tardive diskinesia, temperomandibular joint disorders and dysphagia that can be the impact of many common mental health medications [13].

Fear and dental phobias amongst mental health clients have been reported in numerous studies [16] and it has been argued that dental fear is one of the most stress provoking management issues for dental professionals. Importantly, oral health knowledge and attitudes by health professionals and health workers, dental professional's attitudes and knowledge of mental health problems, and the reticence of dental health professionals to provide dental care to mental health clients have been identified as major mitigating factors that impede improved oral health outcomes for mental health clients [6,10,13].

It has been argued that the impact of poor oral health amongst mental health clients extends well beyond dental caries, tooth discoloration, and oral malodour and is a major contributor to a mental health clients self esteem and attempts at social acceptance [16]. Broken down teeth can act to diminish employment prospects and lead to problems dealing with bank managers, landlords and health services which results in further disadvantage to an already marginalised group [17].

RATIONALE FOR THE PROJECT

Anecdotally, our experience of working in a major rural region in North Central Victoria reflects the international literature. That is, mental health clients have poor oral health outcomes and face many barriers to accessing appropriate services. A small survey conducted by the community mental health team from Bendigo Health, and completed by mental health clients of this service, indicated that only 10% of clients had accessed dental services on an annual basis in the previous five years. Sixty percent of clients indicated that their dental hygiene could be improved. Forty percent of clients were currently experiencing some degree of dental pain. Although the sample size of this local study was small, the findings are generally reflective of those reported elsewhere [6].

In our region, case workers have indicated that oral health and mental health attitudes and knowledge amongst mental health clients, general practitioners, community mental health nurses and workers, allied health professionals and dental professionals could be significantly improved.

With the establishment of the first Australian, rurally located dental school in Bendigo, Victoria we believed that we had the expertise to make a significant contribution, through partnership with the local community, to the improved oral health status of mental health clients in our rural/regional location.

PROJECT AIM

The overall aim of this action research project, funded by the Rural Health Support, Education and Training (RHSET) program, is to improve the quality of life for rural mental health clients in the area of oral health. In designing the project, we believed that our aim could be achieved by the development of a supportive education package for multidisciplinary rural health professionals and mental health consumers and the holding of a one day, workshop training program.

THE OVERALL PROJECT DESIGN

The project was underpinned by community development and participative approaches that were designed to develop new collaborative relationships that would strengthen the capacity of health care workers and their clients to achieve better oral health. In designing the project, the following recommendations drawn from an extensive literature provided guidance and helped focus our work:

- Oral health promotion information to mental health clients must be provided.
- Information on accessing dental services for clients and health professionals should be clear.
- Education and training for general practitioners, community mental health nurses and workers and allied health professionals should be provided to ensure a good understanding of oral health issues.
- Training for dental professionals in managing mental health clients should be a priority.
- Formal pathways for communication and referral between health care workers and dental services should be established.

PROJECT STAGES

The project has been designed around four key stages.

Stage one

Stage one involved the establishment of a critical group. Twenty two group members are involved in the project representing health services, medical staff, community mental health staff, allied health representatives, dental professionals, a representative from our regional Aboriginal Co-operative, a pharmacist, an educational designer, academics, professional body representatives, the Victorian Mental Illness Awareness Council and importantly mental health consumers. Using the action research spiral processes, the critical group has informed all stages of the project.

Central to the overall project has been a strong commitment to true consumer participation. Consumer participation has been defined as:

> *any activity done by consumers where they have power or influence on the system and services that effect their lives* [18].

Consumer and carer participation in mental health research and education has been enshrined in Australian National Mental Health Policy since 1991 and partnerships since 2003 19,20. The Australian National Health and Medical Research Council framework for consumer inclusive research guided all stages of the project 21. As a group, we have been informed by Australian taskforces and reports that have highlighted the importance of consumer participation and true partnership development 22-26.

In this project, we believe that the knowledge, experience and expertise of consumers and carers are integral to the project and has been given the same value as other professional knowledge 27. In developing our processes we are cognisant that in many cases, in other projects, genuine consumer participation has not been achieved 20.

In the project, accountability to consumer participation and partnership is achieved in a number of ways. The whole process is guided by the nine principles of sustainable partnerships outlined in the NHMRC Statement on Community and Consumer Participation in Research 21. The project group worked with the Victorian Mental Illness Awareness Council (VMIAC) and a regional consumer consultant in the initial development of the project. Consumer recruitment was managed through the regional VMIAC representative. It was important to achieve a diversity of consumer experience and representation and this process was successfully managed in collaboration with VMIAC. Six consumer representatives are involved in the project, reflecting the commitment of all project members to genuine collaboration. The consumer's involved in the project are renumerated at a level equal with all other reference group members.

Consideration was given to the consumers who have not been involved in research before. Clear language was used and time was taken to explain all aspects of the project and requested tasks. Consumers and non consumers worked in small groups so that each person was working with another, with more education and research experience. An open dialogue was encouraged so that consumers felt that they were able to put forward their view and importantly, not feel overwhelmed by the academic nature of the project. Meetings are digitally recorded to facilitate everyone's involvement and time is provided to ensure everyone is clear on what is required of them.

Stage two

In stage two, the critical group developed a shared understanding of ways in which oral health and mental health could be maximised in the rural/regional context. An oral health questionnaire was developed by the group and distributed widely to develop an understanding of current issues, including knowledge and attitudes to oral health and mental health. In analysing the data, the focus has been on the requirements for an educational package.

Stage three and four

As we move through stage three and four, we are developing an educational package by drawing together existing evidence based resources and developing new resource material by experts from our critical group and identified key people. The materials are continuously reviewed and refined by our critical group and wider stakeholders. In completing the project, we are in the planning stages for a full day dissemination workshop that will be advertised widely to health professionals and mental health consumers and carers. The workshop will include practical training sessions, presentation of the developed educational package and opportunities for networking.

CONCLUSION

Aligning closely with the objectives of the National Advisory Committee on Oral Health and *Healthy Mouths Healthy Lives: Australia's National Oral Health Plan 2004–2010,* this project is providing an opportunity to contribute to the improvement of the overall health status of rural communities. The importance of oral health and the significant issues surrounding mental health is a focus, as the project is orientated toward supporting, educating and training health professionals and consumers regarding the oral health of mental health clients. It is a proactive process that since commencement has initiated and nurtured collaborative partnerships between interdisciplinary health professionals and consumers. As we move through the process, the value in developing a multidisciplinary project that focuses on true consumer participation is enabling us to not only learn about the subject material that we are engaging in, but perhaps most importantly, to capture the enormous expertise that can be harnessed by bringing people together who are committed to valuing the unique expertise of individuals who come from different perspectives.

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Appendix 9: Abstract for the Association for Health Professional Education Conference

Title: Why mental health needs teeth
Author: Dr Carol McKinstry

This paper outlines the processes a multidisciplinary project team at La Trobe University have taken to improve the oral health of those with mental health issues. Included in the project was the development of educational packages for both health professionals working in mental health and mental health consumers. Reports such as the 'Healthy Horizons Framework' highlight the importance of oral health and the significant issues surrounding mental health. In Australia, poor oral health makes a major contribution to the burden of disease. The *National Oral Health Plan* provides evidence of some improvement in the oral health status of the broader community. However, the plan identifies that the 'gap between the oral health status of the advantaged and the disadvantaged is substantial and increasing'. Mental health clients are identified in this plan as one of the major disadvantaged groups facing significant issues around declining oral health.

Key national and international reports have identified the major issues that impact on improved oral health for mental health clients. These factors include the type of mental illness, client motivation and self esteem, dental phobias, understanding of the importance of oral health, socioeconomic factors, lack of understanding of how to access dental services, and the impact of pharmacology used in psychiatry. Importantly, oral health knowledge and attitudes of health professionals and dental professional's attitudes and knowledge of mental health problems have been identified as major mitigating factors that impede improved oral health outcomes for mental health clients. It has been argued that the impact of poor oral health amongst mental health clients extends well beyond dental issues and is a major contributor to a mental health clients self esteem and social acceptance. Given these factors, the project team consisted of a range of health professionals including dental professionals and half of the members were consumers of mental health services. The input of consumers was considered vital in ensuring the educational material met the needs of all the target audience, particularly those with mental health issues. The project is underpinned by community development and participative approaches that have developed new collaborative networks and strengthened the capacity of health professionals and their clients to achieve better oral health.

Appendix 10: Abstract for the NET conference at Cambridge University in September 2009

Theme : Partnership Working

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A partnership approach to improving oral health outcomes for mental health clients.

In Australia, the *National Oral Health Plan* (National Advisory Committee on Oral Health 2004) provides evidence of some improvement in the oral health status of the broader community. However, the plan identifies that the 'gap between the oral health status of the advantaged and the disadvantaged is substantial and increasing'. Mental health clients are identified in this plan as one of the major disadvantaged groups facing significant issues around declining oral health.

Key Australian and international reports (National Rural Health Policy Forum and National Rural Health Alliance 1999; Griffiths, Jones et al. 2000; Friedlander and Marder 2002; National Advisory Committee on Oral Health 2004) have identified the major issues that impact on improved oral health for mental health clients. These factors include the type of mental illness, client motivation and self esteem, dental phobias, understanding of the importance of oral health, socioeconomic factors, lack of understanding of how to access dental services, and the impact of pharmacology used in psychiatry. It has been argued that the impact of poor oral health amongst mental health clients extends well beyond dental issues and is a major contributor to a mental health clients self esteem and social acceptance (Davies, Bedi et al. 2000; Mirza, Day et al. 2001; Tang, Sun et al. 2004).

Oral health knowledge and attitudes of health professionals, and dental professional's attitudes and knowledge of mental health problems have been identified as major mitigating factors that impede improved oral health outcomes for mental health clients (Griffiths, Jones et al. 2000; National Advisory Committee on Oral Health 2004).

Using an action research approach, this study involved nurses, allied health professionals, medical professionals, dental professionals, peak mental health and dental organisations and mental health consumers as members of a critical group that guided the project.

Underpinned by principles of partnership, community development and participation, the group worked together developing shared understandings of the oral health issues faced by mental health clients. Knowledge and skill of oral health and mental health developed within the group as expertise and learning was shared. Through a cyclic process of sourcing information, planning and action, an interprofessional and consumer education program was developed by the group to strengthen knowledge, skill and understanding of oral health issues as they relate to mental health. A full day workshop was conducted to share the learning's from the project with a wider group of health professionals, peak bodies, and consumers and carers.

The project demonstrates how the evidence of poor oral health outcomes for mental health clients can be translated to a practical, evidence based, interprofessional educational program designed to improve attitudes and knowledge related to mental health and oral health. It illustrates the far reaching impact of research that involves strong partnerships. Health professionals, key professional bodies and health consumers worked closely together as 'experts', bringing their unique perspectives to this important project.

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FHEC No:

Appendix 11: Health Professional Questionnaire

Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers.

Dear colleague,

The aim of this research project is to improve quality of life for rural mental health clients in the area of oral health. The project is an opportunity to assist with supporting, educating and training health professionals and consumers on the oral health of mental health clients. The purpose of this questionnaire is to develop an understanding of current issues including knowledge and attitudes to oral and mental health. You will see that the questionnaire covers four areas of interest, working environment, professional development, confidence and key issues. We would like to ask you to complete the enclosed questionnaire by indicating which response best matches your opinion; and return it in the provided stamped, self-addressed envelope. By returning this questionnaire, you are giving your consent to participate in this study. Participation in this study is voluntary. You can choose not to take part and you can also choose not to finish the questionnaire or omit any question you prefer not to answer without penalty or loss of benefits.

Your anonymity is assured as there is no request for information that may see you identified. The questionnaires will be held as anonymous written data. In accordance with the University guidelines, anonymous research data will be kept for a period of five years following publication. Consistent with the Public Records Office of Victoria Standard (O2/01) all project material will be kept in a locked archive area for a period of five years following publication. At the end of this time all material will be security shredded.

If you have any questions, concerns, or complaints please contact the project manager Associate Professor Amanda Kenny, Faculty of Health Science, La Trobe University Bendigo on 035447545. If you have questions regarding your rights as a research participant or if you have questions, complaints or concerns which you do not feel you can discuss with the project manager, you may also contact the Faculty of Health Science Human Ethics Committee on (03) 9479 3573.

It should take approximately five minutes of your time to complete the questionnaire.

Thankyou in anticipation of your response,

The research team.

FHEC No:

Strengthening knowledge of oral health: the development of a supportive education program for multidisciplinary health professionals and mental health consumers.

Health professional questionnaire

Please identify your profession

Dentist	
General practitioner	
Registered nurse	

Working environment statements	**Strongly Disagree 1**	**Disagree 2**	**Unsure 3**	**Agree 4**	**Strongly Agree 5**
My place of work requires me to have a wide knowledge of mental health problems.					
At my place of work, I am informed of advancements in mental health management.					
The physical environment of my workplace caters for individuals with mental health problems.					
Access to information regarding mental health is readily accessible at my work place.					

Allied health professional	
Other (specify)	

FHEC No:

Professional development Statements	Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
My work place has access to the internet					
At my place of work, I am informed of advancements in oral health management.					
Continuing professional development focused on oral health is supported at my work place.					
Access to information regarding oral health is readily accessible at my work place.					
Continuing professional development focused on mental health is supported at my work place.					
A web based resource would be useful for consolidation and/or extension of my knowledge regarding oral health.					
A web based resource would be useful for consolidation and/or extension of my knowledge regarding mental health.					
Workshops are a productive format to enhance professional development					
I find the information kit format useful to improve my knowledge and understanding of a particular topic.					
I have engaged in accredited professional development that focused on mental health.					
I have engaged in accredited professional development that focused on oral health.					

FHEC No:

Confidence Questions	Extremely Lacking in Confidence 1	Lack of Confidence 2	Unsure 3	Confident 4	Very Confident 5

How confident are you in your current knowledge and understanding of common mental health issues?					
Without additional education, how confident are you in providing a service for individuals with mental health needs?					
What is your level of confidence in discussing a diagnosis of a mental health problem with your client?					
How confident are you in your knowledge and understanding of services available for individuals experiencing mental health problems?					
How confident are you in liaising with health care organisations for individuals with mental health problems?					
How confident are you in your current knowledge and understanding of common oral health issues?					
Without additional education, how confident are you in providing a service for individuals with oral health needs?					
How confident are you in your knowledge and understanding of services available for individuals experiencing oral health problems?					
How confident are you in liaising with health care organisations for individuals with oral health problems?					

FHEC No:

Key Issue Statements	Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
Mental health clients face significant issues around declining oral health and poor access to dental services.					
The impact of the adverse oral health effects that arise from common pharmacology used in psychiatry is not adequately addressed in the provision of mental health care.					
The impact of poor oral health among mental health clients contributes to low self esteem and the level of social acceptance.					

Dental professionals are reticent to provide dental care to mental health clients.					
Dental fear and anxiety of clients is one of the most stress provoking management issues for dental professionals.					
Oral health promotion information to mental health clients is adequate in the rural context.					
Education and training for general practitioners and health care professionals regarding oral health issues should be provided.					
Training for dental professions in managing mental health clients should be a priority.					
Formal pathways for communication and referral between health care workers and dental services should be established.					
My profession enables access for oral health care for mental health clients.					
I have a role in initiating oral health treatments for mental health clients.					