

UNIVERSITY OF SOUTHERN QUEENSLAND

**STRENGTHENING FARMERS THROUGH THE  
CAMERA'S EYE**

A Dissertation submitted by

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## **Acknowledgements**

This dissertation has incorporated a collaborative approach across faculties and divisions at USQ using a multidisciplinary team approach. It researchers the use of Information Communication Technology as an alternative intervention program in the service delivery of professional counselling by social workers to Australian farmers in an effort to reduce the farmer suicide rate and improve their sense of 'well-being'.

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Mr Troy Downs: Manager Data Communications USQ (ICT)

Mrs Linda Furminger: Research Demonstrator USQ (Student Services)

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# DEDICATION

I dedicate this thesis in the year 2012, The Australian Year of the Farmer, to my Australian rice farming mother, Yvonne, and all the other farmers who rise every morning to till the soil and grow the food that sustains us. May you be honoured for your dedication to a complex industry and stewardship of our land.

Next time you see a farmer, pay tribute and say thank you with gratitude for the food that they put on your plate, not once, not twice, but three times a day. Australian farming and agriculture plays a substantial role in our economy and society, and it holds a unique place in our cultural heritage. Farmers are producing more now for our burgeoning Australian and world population, with fewer resources, than ever before. They receive little recognition for their diversity, expertise and intelligence. They have so much on their plate.

They have become climatologists, agronomists, commodities futures experts, chemists, legal experts, builders, electricians, plumbers, veterinarians, mechanical engineers, bankers, technologists, environmentalists, mediators, negotiators, reconciliation experts and trouble-shooters.

Australian farm produce and Australian agriculture is at the forefront of maintaining our national and global food security. W. T. F? Where is the Food? Without the farmer?

It's only because there's so much on their plate that there's so much on yours'.

Bon appetit.

# ABSTRACT

## **Strengthening Farmers through the Camera's Eye**

One farmer in Australia commits suicide every four days (AAP, 2008; Judd et al., 2006). They have a higher death and morbidity rate than the general population (Courtney, 2006; Fragar & Franklin, 2000) and are over represented in farm injury statistics (Troeth, 2004). Their steady decline in numbers and the reduction of their local peer networks further increases their social and professional isolation along with their geographical isolation. Farmers, the majority of whom in Australia are generally referred to as men, even though 28% are women (Australian Bureau of Statistics, 2012), are a group that are difficult to access because of their isolation and reluctance to use health services.

Information Communication Technology (ICT), along with climate change and the media is bringing the attention of rural land desecration and its impact on our farmers and production to the fore. This research masters aims to explore: *Will farmers in the area previously known as the rural shire of Crows Nest Queensland, access counselling services by social workers, using web cameras via the internet in their own home?*

The project involved recruiting a sample of farmers in the shire of what was known as Crows Nest (the shire). The technology used was video streaming through web cameras via the internet with laptop computers. The usefulness of video streaming using web cameras with a social worker, in offering counselling services to farmers, was evaluated. The research is primarily qualitative with participants completing a written pre - demonstration questionnaire, and immediately following participating in

a live web camera interactive demonstration; concluding with a post - demonstration audio interview questionnaire. The responses and data signifies the potential use of offering counselling services to rurally isolated farmers in the privacy of their own environment (home, paddock, tractor) which is applicable for them to be able to access such services via broadband wireless technology. This can assist overcome the issues of the '*tyranny of distance*' and other factors such as lack of anonymity, privacy and cost. This research indicates these issues form part of the barriers for farmers in seeking help.

This thesis concludes with recommendations for change in 'farmer well-being' service provision, by redesigning, developing and implementing an alternative service delivery model which could also address employment and training for those in the health industry who have acquired a disability to be able to work within their own home environment. This model would offer professional counselling services delivered to them by professionally trained social workers with a rural (preferably farming) background, using web cameras via the internet in the privacy of their own home.

## **CERTIFICATION OF DISSERTATION**

I certify that the ideas, experimental work, results, analyses, software and conclusions reported in this thesis are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other award, except where otherwise acknowledged.

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Signature of Candidate

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Date

### **ENDORSEMENT**

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Signature of Principal Supervisor

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Date

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Signature of Associate Supervisor

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Date

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# 1 RESEARCH STUDY OVERVIEW

## 1.1 Background

The desire to pursue this Master of Health by research was based on a need to investigate and broaden an idea which the researcher conceived in 1998 and finally developed into a self-funded pilot study in 1999, concluding in 2001. The aim of the pilot project was to provide by web cameras, in real time audio and picture quality, a professional face-to-face internet counselling service to a minority group - rural Australians - who were in need of, and who have difficulty accessing, professional social workers in person for counselling.

This need was not only because of the lack of counselling and support services in rural and remote areas, but due to '*tyranny of distance*', it is either impossible or impractical to travel vast distances to access health services and private counsellors. This is also compounded by limited or no public transport and the cost involved in accessing services in time and personal expense when and where they do exist.

Difficulties are encountered in educating, training, recruiting and retaining social workers in rural and remote cities, towns and communities. The steady decline of rural populations is continuing to create personal and professional isolation and is making these tasks harder. Confidentiality cannot be assured in these communities, as lack of anonymity in rural and remote areas is a major fact of life for rural residents, social workers and clients alike. Offering live face to face counselling services via technology in their own home could alleviate many of the issues for people seeking and providing help.

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The authors search during the pilot of live on-line face to face counsellors using web cameras, or businesses operating a service to clients, was zero Worldwide, despite the capacity to be so by building an online website such as the pilot and using the MSN Messenger™ program. There were, however, three other individual counsellors, all of whom were in the United States of America attempting to offer on-line counselling via email or by telephone only.

In addition, the pilot was aimed at providing a career pathway for graduating rural social workers with disabilities (covering impairments, activity limitations, and participation restrictions), from regional educational institutions to work within the comfort of their own environment with rural and remote people, thereby being able to control their workspaces. Employment and working conditions have powerful effects on health equity. When these are good they can provide financial security, social status, personal development, social relations, self-esteem and protection from physical and psychosocial illnesses.

Research has shown that while many employers and legislators perceive people with disabilities to be able to perform the same work as those without disabilities, with reasonable adjustments, it is the societal, workplace and environmental factors, including attitudes towards them, that have contributed to the decline in employment of people with disabilities (Chima, 2005). The term ‘disability’ is not a ‘sexy’ option for employers, compared to the incentives of employing candidates from other minority groups such as Australian Indigenous Peoples or Culturally and Linguistically Diverse peoples, despite their intelligence, vocation, skills and experience. Advertising material continues to portray a person with a disability in a wheelchair or visually recognised in some other way, usually through facial features

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such as Down's Syndrome. People with disabilities are among the most marginalised and poorest groups within Australia in terms of per capita income and often are overrepresented in under-employment statistics.

The opportunity for rural workers who have an aptitude for social work and who acquire a disability in their adult life, (be it impairment, limitation or restriction), to be retrained within a recognised regional education institution as social workers and assist rural people through counselling via web cameras, may not have been explored by governments or education institutions. This is especially so of the medical and allied health workforce, where many of the necessary skills are already apparent and which can be easily utilised and transferred with additional study and training. Regional universities that specialise in rural issues could accept these candidates for a social work qualification (Bachelor or Masters of Social Work) and grant them credits for the relevant components of the courses they have already completed. This opportunity could provide the appropriate and necessary supports that allow health workers who acquire such disability to reach and sustain their full employment potential, particularly given their previously proven ability and aptitude for academic achievement and workforce participation. This could also create a symbiotic relationship, both for clients in need of assistance, and for deployed and retrained professional rural health social workers with disabilities in need of income. This vision would at the same time, eliminate expensive overheads and extensive travel, not only for the rural clients and social workers, but for organisations involved in the recruitment and retention processes.

A core part of this research study is the development of a real-time video/webcam counselling service. A pilot study was carried out to explore the potential of such an



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initiative. The outcomes of this initiative were subsequently evaluated and demonstrated the possibility of live web camera broadcasting of internet based professional counselling services to rural Australians.

However, the potential development of the pilot study into a commercially sustainable counselling business was hindered by one major factor. The technology available in 1999 could not provide a professional service with effective quality assurance which met the ethical guidelines of the current Australian Association of Social Workers Code of Ethics (Australian Association of Social Workers, 2010).

For example, it was important to be able to offer genuine confidentiality to the clients. At the time this could not be assured using a third party intermediary service, such as MSN Messenger™. To be professionally genuine and to respect the right of clients to a relationship of trust, in the safe guarding of the client's confidential information, and to continue with the pilot on this basis, would, in the author's view, have been unethical and in breach of the AASW Code of Ethics. The pilot website underwent further development to overcome these issues of confidentiality and third party interception and remained open until 2006. (See Appendix A) The other difficulty was that each time a client was contacted; a different IP address was required with each connection. This fundamentally meant a potential client had to be contacted by telephone and informed that a connection through MSN Messenger™ was about to occur and to stand by. This, in the author's opinion, was un conducive to effective client rural service delivery, particularly when counselling people who were culturally stoic and reluctant to reach out for assistance during crisis, and who may have also been contemplating suicide. What was required was a fast connection to be able to discuss urgent matters with a professional rural social worker, on demand,

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face to face, through information communication technology, in the privacy of their own environment.

This master's research provides the opportunity for new insights into the development of this concept. Ten years from now it may be possible to remedy the technical difficulties encountered. While the pilot identified the research technicalities, practical application and ethical issues, further research was seen to be needed to answer the question of whether rural and remote people would use a service on the internet for counselling if one was available.

### **1.2 Overview of Research**

The research needed to be narrowed, from the original pilot where the pilot design and website was targeted to regional Australians, to a smaller, more manageable demographic and geographic area. Due to the author's farming and rural background and social work education and training, plus a specific interest and experience in rural men's mental health, the research was designed to concentrate only on farmers.

Significant factors contributing to the need for counselling services for farmers include:

- The national rate of farmer suicides, with one farmer committing suicide every four days (AAP, 2008; Fragar & Franklin, 2000; Judd et al., 2006).
- The lack of access to counselling and support services in rural and remote areas (Services for Australian Rural and Remote Allied Health (SARRAH), 2008) .
- Higher death and morbidity rates of farmers than the general Australian population (Brumby, Chandrasekara, McCoombe,

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Kremer, & Lewandowski, 2011) Often this indicates financial and social counselling needs for farming families.

- Farmers are overrepresented in farm injury statistics (Troeth, 2004), requiring adjustments in the workplace and trauma counselling.
- The steady decline in numbers of farmers and the resulting reduction in their local peer networks within the country contribute to their social and professional isolation. This can have a detrimental effect on their mental health and their sense of belonging, which in turn can lead to isolation and depression. Abraham Maslow determined, through his Theory of Motivation, that a sense of belonging is one of the important aspects of human survival (Maslow, 1943).
- There is a range of stressors that are particular to farming. Farmers have a limited capacity to identify and acknowledge these stressors (Judd et al., 2006). This may often lead them to accepting more and more responsibility, with limited ability to deal with the overwhelming decision making processes. The difficulties farmers face in making effective decisions impacts on both their personal and professional life.
- ‘Farmers are aging, working harder, working longer and increasingly relying on family members to provide extra labour to financially survive’ (Brumby, Martin, & Willder, 2006, page 3). The complexities of the family farm have become increasingly stressful.

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- The current effect on farmers' social health is due partly to climate change and partly to continued legislative regulations. According to Crosby (1998) counselling through the transition stages of climatic changes, i.e. when droughts break and farmers wish to redeploy to other occupations, is often a time when farmers are relieved that they can be decisive in taking action to move on and thus no longer feel compelled to remain in crisis (Crosby, 1998). Counselling during the transition stages from crisis through to change supports farming families in both their business and personal development.

These are just a few examples as to why farmers may wish to access counselling services, although the list is not exhaustive.

Reasons that support access to social workers for counselling services via the internet include:

- Distances to travel and costs incurred in consuming and accessing social work services where they do exist. These pose formidable service problems (Alston & McKinnon, 2001).
- Inability to educate, train and retain social workers in rural and remote cities and towns (S.A.R.R.A.H, 2004).
- The label of mental health was cited as a deterrent to rural people seeking counselling services. The services offered by psychologists and mental health workers go beyond their nominal titles and names of their agencies. The stigma associated with mental illness sees people distancing themselves from such services (Crosby, 1998).

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- The reluctance to use face to face counselling services may relate to lack of anonymity. In smaller communities people know each other, privacy and confidentiality cannot be assured in rural and remote areas, when accessing counselling services.

All of these reasons, namely tyranny of distance, educating, training, retaining and maintaining social workers within a structure that offers counselling to farmers, in a familiar environment where counselling could be accessed, could assist to improve farmer well-being.

### 1.2.1 Research Question

The researcher's specific objective was to survey and explore consumer attitudes in the Australian farming sector, to the possibility of farmers accepting and accessing live broadcast counselling services provided by professional social workers, via communication information technology, in this case live video streaming via web cameras using Skype via the internet through a wireless broadband communication network.

The resulting research question is as follows:

[Will] farmers in the area previously known as the rural shire of Crows Nest Queensland, access professional counselling by social workers, using web cameras via the internet in their own home [and what implication does this pose]?

### 1.2.2 Methodology and Design

This master's research incorporated a qualitative study with a sample group of farmers within a shire near Toowoomba, using a combination of critical social work theory and an action research based methodology. It has been designed to collect

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information by way of a pre-demonstration questionnaire, an interactive computer demonstration with each subject and a short post-demonstration audio semi-structured interview of their experience of the interactive demonstration. All procedures were undertaken during a one hour period at local venues.

Demographic information such as age, sex, size of property, products grown and their knowledge, understanding and use of counselling and where people go for counselling was collected using a pre-demonstration questionnaire. Following the web cam computer demonstration, their thoughts on that experience and their opinions of the use of a live to air web camera internet counselling service were explored and the critical question: 'if one was available would you use it?' was asked of them in an audio- taped post-demonstration interview.

Data collected through these methods were subject to a thematic analysis. The questionnaire responses were transferred to a separate Microsoft Word™ document for each question and searched for themes. The same technique was used with the audio taped post-demonstration interview questions. The analysis of the themes included the emphasis placed on them in the responses. The data is presented in several ways, using charts to identify key themes emerging from the data.

This approach was considered to be most effective because of the qualitative nature of most of the information and the potential variations between the themes that appeared.

## **2 LITERATURE REVIEW**

### **2.1 Overview**

This chapter will explore the three key components in the application of using web cameras in real time by social workers to Australian farmers for counselling. It will concentrate on farmer health, the social work workforce within rural Australia and the uptake of Information Communication Technology (ICT) in the private homes of farmers. It will also review how social workers and farmers are using ICT and the possibility of their using ICT for live counselling to enhance farmers' social and emotional well-being, (mental health) within their own environments. The literature search revealed that farmers' environments have not previously been explored as a venue for live real-time web camera counselling by social workers via the internet anywhere in the world. Social workers, farmers and the application of ICT for this purpose will be explored within this review. Australian farmers are committing suicide at a rate of one every four days. This is twice the national average (AAP, 2008; Fragar & Franklin, 2000).

It is well known that counselling can improve the mental well-being of people in the general community, and therefore counselling can also improve the mental well-being of farmers. Farmers and social workers are impacted by tyranny of distance in service provision as well as other factors outlined earlier in the overview of the research. The use of Information Communication Technology can provide access to support for farmers and job opportunities for social workers, in addition to other appropriate services. The question to ask is whether such a service will work for both the farmers and social workers. Counselling can improve mental well-being – farmers and social workers in regional Australia are impacted by distance as well as

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other factors outlined earlier in Chapter 1. The use of web cameras can provide access to support for farmers and job opportunities for social workers, in addition to more appropriate services. But will such a service work for the farmer (and the social worker)?

The review is divided into three sections, namely Farmers, Social Workers and Information Communication Technology. The researcher believed this was necessary, due to the complexity of each to give the reader a more comprehensive understanding of what is involved.

### 2.1.1 Introduction

The literature review commenced in late 2007. There was very little research completed or information available on-line or in journals in regard to real-time live counselling of clients using web cameras (cam(s)) via the internet by social workers, psychologists, psychiatrists, counsellors or any other health professionals. What little research was available was not based on live private web camera exchange broadcasting between a qualified health professional and a client, particularly rurally isolated clients in their own home environment.

There was, however, material that gave detailed information on how distance education has been at the forefront of interactive communication through the internet by education institutions, and how they are continuing to deliver material on-line to staff and students through interactive computer programs to enhance learning (Volery & Lord , 2000, p.iii).

The purpose of this initiative was ultimately geared towards improving the mental health of farmers. Information on farmers and their mental health and their approach to counselling was limited. Therefore, research on farmers and farmer health and the



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health and lifestyle issues of farmers and how these may contribute to farmer suicide was limited to a narrow group of individual Australian published researchers, who are scattered throughout various tertiary education and research centres across the country. Recently there have been some inroads into this area with the establishment of the National Centre for Farmer Health, a collaborative research centre between Deakin University and Western District Health Service, Hamilton, Victoria. The main focus of this Centre's research is on farmers' health, social and emotional well-being (National Centre for Farmer Health, 2009).

The Australian Institute for Suicide Research and Prevention at Griffith University Queensland is also noted in relation to their current national research on farmer suicide (Griffith University, 2005) which, for the first time in Australia, will be researching causes of farmer suicide. There are other research centres within tertiary institutions throughout Australia and other farm and agricultural institutions that research issues relating to farmer health. The combinations of these centres are defining research in farmer health within Australia.

Social workers are holistic in their approach to counselling and psychotherapy. They are also diverse in their training and cover many aspects of how their clients function within their own unique environment. Given the difficulties that occur in the training, recruiting and retention of social workers, it is important to look at researching the social work workforce. Similarities exist between rural social workers and farmers and for these reasons a symbiotic relationship could exist between them with the aid of Information Communication Technology.

There was research available with respect to the social work workforce and where social workers are currently employed throughout the country, through the Australian

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Bureau of Statistics (ABS) and the Services for Australian Rural and Remote Allied Health (SARRAH). ABS statistics and SARRAH research, particularly their 2004 and 2008 reports and their 2011 discussion paper are referred to. SARRAH uses a geographic classification system to identify numbers of social workers and where they are located, by defining regions in concurrence with the ABS, who use a broad categorization on the census form to calculate whether people are working in the public or private sectors. Neither identifies which cities and towns social workers are employed in. For example, they do not inform the reader how many social workers are employed in Toowoomba, or if they are working in private or public employment such as a Department of Health. Neither do they determine where the qualified social work workforce goes within rural Australia once they have completed their tertiary training and what lures them to those destinations. There does not appear to be research as to why so many social workers are not working in their chosen profession. This professional group, despite their core business of counselling/case work and capacity building (community development) is not being regulated by Australian governments, unlike other health professionals in Australia or in other developed countries such the United States and Canada (with the exception of Manitoba) in particular (Lundy, 2011).

One has to question why this anomaly is so, when in England, Japan and Ireland this would not be permitted, either in private or community practice. Australia needs to step up its response to the professional regulation of social workers, to come in line with other developed countries. It is absurd that the Australian Health Professionals' Registration Authority (AHPRA), which was established as a result of a Council of Australian Governments (COAG) decision to have all Health Professionals registered to a National Authority, has excluded this profession in its entirety from mandatory

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registration. This is particularly alarming, given that the Australian Association of Social Workers (AASW) supports the regulation and that the AASW members are unified in all aspects of training, practice, ethics and membership nationally. Note was taken of the AASW's submission to Health Ministers in October 2011 for the statutory regulation of social workers, in line with the other allied health four year university trained health professionals. The International Federation of Social Workers (IFSW), the world-wide body for professional social work, comprises 90 professional social work associations representing over 750,000 social workers. In addition, IFSW has formal consultative status with the United Nations and other global bodies. The organisation's purpose is to contribute towards achieving a socially just world through professional social work. IFSW and its partners, including Australia's AASW, set and review the international standards of social work, the definition of social work and policies that promote good practice outcomes.

The literature contained no evidence of explanation for the Australian government's failure in recognising social workers through the standard regulating body, and their skills being recognised as equivalent to the other trained professions as they are in other countries worldwide, nor did it identify the drivers behind this anomaly.

Literature was available on the impact and successes that telemedicine is having, both from an instructional operative perspective and from an information and diagnostic perspective. The instructional operative perspective is where a specialist surgeon in one country is instructing a surgeon in another, who is working on the patient via teleconferencing. The information and diagnostic perspective definition is where a patient can speak to a doctor through teleconferencing, at a different

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location, regarding their medical results. There is a plethora of self-diagnostic health and education sites available via the internet on various disease symptomatology for individuals to peruse at any time they choose, providing they have internet access. These will be detailed in the Information Communication Technology section of this review.

In 2009/10 the researcher completed an online search through EBSCOhost®, using the key words of ‘farmers, AND broadband wireless technology AND National Broadband Network (NBN) AND people in rural Australia AND counselling’. At present there are no research journal articles in print using these key words. However, there were some media reports from The Australian newspaper and the Australian Broadcasting Commission (ABC) that provide an indication of issues in these areas. In many cases, due to the new frontier of the internet and in particular, information on the roll out of the National Broadband Network in Australia, at times, the only way to quote a written source was through media articles. There has not been sufficient time to have research journal articles written, approved and published by education, health and well-being organisations on this topic at the time of writing. Every effort has been made to source material through journals or other documents which have some validity and reliability.

Four years on, literature comparable to this author’s original concept of professional live web camera counselling through the internet, for rural and remote people by industry accredited professional social workers within Australia based on the pilot study (since 1998) remains limited. Due to the limitations of the literature available, the researcher pursued obscure literature sources such as RM Williams Outback®

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magazine. Along with the media articles, these also where necessary, have been included with reservation. Please note the web sites do not have page numbering.

## **2.2 Definitions**

### **2.2.1 Health and Well-Being:**

#### ***Review of research findings relating to farmers in rural and regional areas***

Discussion will centre on the World Health Organisation's (WHO, 2011c) definition of health, including the definition of mental health and e-health. Definitions will also be provided for e-mental health and web cam mental health and hence the application of the researcher's definition of 'farmer well-being'. This has been done to avoid the well documented stigma associated with the terms mental health and mental illness (Scheyett, 2005; Thornicroft, 2008). Information will also be provided in regard to the changing face of the Australian agricultural industry. It will encapsulate the stress farmers' face in their everyday lives. These topics are necessary for the reader to have an understanding of the constant state of flux that farmers are subjected to and how such volatility can possibly create 'farmer well-being' problems. A section will describe the farmers' willingness and the barriers to seeking help, with an explanation of the Australian male cultural norms that may block them from reaching out.

Mental health services and programs available to farmers in Australia are also detailed to indicate the services that are available for this high risk suicide group, although the information is not exhaustive.

An indication will also be given as to how Australian farmers have embraced and are using ICTs. Current, well known information technology services, programmes and schemes available to Australian farmers will be presented as an indicator of their

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willingness to already use ICT services and may indicate a willingness to transfer this activity to also improve their ‘farmer well-being’.

How Australian farmers could benefit from using ICT to address farmer stress with social workers by a remote live counselling web cam service that could be made available to them, will be offered as an additional option to current service provision. The benefit of this option may support farmers and possibly address the recruitment, training and retention of social workers in the rural and remote areas of Australia.

### 2.2.2 Health

Health is a foundation that is necessary for well-being across a variety of fields—medical, emotional, economic, social, personal, professional and spiritual. Good health plays a role in well-being across these areas and, conversely, lack of well-being in these areas can contribute to the diminution of a person’s health. Yet in order to make a workable definition of well-being, it is important to focus on a description that is applicable to the life of every person.

What contributes towards a person’s level of health and how to address those factors is the domain of the member states of World Health Organization of which Australia is one (World Health Organisation, 2012).

‘The World Health Organisation is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends’ (World Health Organisation, 2011a, np).

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The first International Conference on Health Promotion occurred in Ottawa on 21 November 1986. This conference was primarily a response to growing expectations for a new public health movement around the world. Discussions focused on the needs in industrialized countries, but took into account similar concerns in all other regions (World Health Organisation, 2011c).

The World Health Organisation's Ottawa Charter for Health Promotion (1986), defines health as:

‘To reach a state of complete physical, mental, social well-being, an individual or group must be able to realise aspirations, to satisfy needs, and to change or cope with the environment. Health is therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasising social and personal resources as well as physical capacities’ (World Health Organisation, 2011c).

### 2.2.3 **Mental Health**

Mental Health refers to a broad array of activities directly or indirectly related to the mental well-being component included in the World Health Organisation's (WHO) definition of health: ‘A state of complete physical, mental and social well-being, and not merely the absence of disease’ (2011d, np). Therefore mental health is an integral part of health. It is related to the promotion of well-being, the prevention of mental disorders, and the treatment and rehabilitation of people affected by mental disorders (World Health Organisation, 2011c). Well-being is linked not just to mental illness, but to physical health, economic and social circumstances, relationships and social engagement. The whole of one's health needs to be taken into account to ensure overall health.

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‘The strong historical association between the terms “mental health” and “mental illness” has led some to prefer the term “emotional and social wellbeing”, which also accords with holistic concepts of mental health held by Aboriginal and Torres Strait islander peoples and some other cultural groups, or, alternatively, the term “mental health and wellbeing” (Australian Association of Social Workers, 2010b, p. 3).

For the purpose of this thesis the term ‘farmer well-being’ will be used to avoid any notion of stigma in relation to the term ‘emotional’ or ‘mental’ well-being. There are two reasons for deciding to do this. First that actions to reduce stigma ‘support the social justice mission of social work’ (Scheyett, 2005, p. 79) and secondly stigma has been found to be a barrier to seeking help (Crosby, 1998a; Thornicroft, 2008) For the researcher ‘farmer well-being’, encapsulates so many of the health issues that are current for farmers and it provides a title that is not stigmatising. It is the researcher’s view that health in rural and remote regions needs to be tackled from a holistic perspective. It is more than likely that issues that affect mental health are also prevalent in general health literature as WHO’s definition implies.

### 2.2.4 E-Health

The World Health Organisation defines e-health as ‘the combined use of electronic communication and information technology in the health sector’ (WHO Regional Office for the Eastern Mediterranean, 2005). The term therefore covers a range of quite distinct activities and services. It includes the use of electronic communications for allowing health professionals to contact each other (for example, for the interpretation of a radiology image), electronic billing under Medicare, and the production, storage and use of electronic patient health records. Overall, then,



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‘e-health’ is an umbrella term,

‘A new term needed to describe the combined use of electronic communication and information technology in the health sector... ‘the use in the health sector of digital data - transmitted, stored and retrieved electronically - for clinical, educational and administrative purposes, both at the local site and at distance’ (Department of Communications Information Technology and the Arts, 1999, np).

E-Health is about providing the right health information to the right person at the right place and time in a secure electronic form. Because of its potential for helping to overcome the tyranny of distance, people living in rural and remote areas stand to benefit substantially from e-health and e-mental health to improve the social and emotional well-being of rurally isolated people. This is particularly so in Australia with the current rollout of the National Broadband Network (NBN) in 2011, which has the potential to improve health access as did the overland telegraph.

To date there is not a definition for E Mental Health from the World Health Organization; however there is a widely used definition that is again an umbrella term.

‘E Mental Health refers to the delivery of mental health services via the internet through videoconferencing, chat, or email web applications’ (Med Wow, 2011, np). This definition also incorporates a range of services which includes online radiology, talk therapy, online counselling, online pharmaceutical therapy, cyber mental health approaches, computer-based interventions, and online mental health education (Med Wow, 2011).

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Mental Health services have been gaining momentum, particularly in Australia and the United States, in academic research in a wide variety of disciplines such as psychology, clinical social work, family and marriage therapy, and mental health counselling (International Society for Mental Health Online, 2010). The International Society for Mental Health Online is an international organization with its own international journal, the Journal of Medical Internet Research. It has come about because the efficacy and effectiveness of E Mental Health approaches are currently being studied around the world. An example of this is the Australian National Universities Centre for Mental Health Research in Canberra Australia.

### 2.2.5 Rural and Remote

The current classification system used by the Australian Bureau of Statistics that grants quantitative comparisons between ‘city’ and ‘country’ Australia is the Australian Standard Geographical Classification – Remoteness Areas (ASGC-RA) system (Australian Bureau of Statistics, 2006b). This system uses remote area codes which include: 0 = Major Cities of Australia; 1 = Inner Regional Australia; 2 = Outer Regional Australia; 3 = Remote Australia; 4 = Very Remote Australia and 5 = Migratory (Australian Bureau of Statistics, 2006a).

‘While the ASGS RA provides a useful aggregation of remoteness categories for statistical purposes, the classification of cities and towns to remoteness categories does not always correspond with common perceptions’ (Australian Institute of Health and Welfare (AIHW), 2011, np).

Crows Nest is classified as 1 inner regional using this system and will continue to be referred to as that throughout this thesis. However Crows Nest is 42 kilometres from Toowoomba which has a population of over 100,000 people, yet Crows Nest has a

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population of only 1448 people (Australian Bureau of Statistics, 2006). Inner regional can also be identified as a suburb of a capital city and therefore the ASG-RA can be misleading. Defining 'Rural' tends to be used with this ASGS RA classification system. Following are remaining definitions used in this literature review.

### **2.2.6 Farmer**

For the purposes of this thesis a farmer is a person who cultivates land or crops or raises animals such as livestock or fish for a commercial purpose.

### **2.2.7 Information Communication Technologies**

This thesis studies how modern communication technologies can affect and benefit society by improving mental health in the context of service provision to farmers to improve their well-being. ICTs within this research refer to technologies that provide access to information through telecommunications. It focuses primarily on communication technologies. This includes landline telephones, the internet, the World Wide Web, wireless networks and, where applicable, mobile phones.

### **2.2.8 World Wide Web**

An information system on the internet which allows documents to be connected to other documents by hypertext links, enabling the user to search for information by moving from one document to another, often referred to as 'the web'

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### 2.2.9 **Internet**

A global computer network providing a variety of information and communication facilities, consisting of interconnected networks, using standardized communication protocols.

#### 2.2.10 **Web Camera**

A front facing digital video camera capable of downloading images of the users to a computer for transmission over the internet (or other devices such as mobile phones), between people, commonly used for conversations with sound and pictures. A web camera is colloquially referred to as a “web cam”.

#### 2.2.11 **Web camming**

The broadcast or narrowcast transmission of using a laptop camera, stand-alone camera or mobile phone, to capture live video and transmit it over the Internet. Also called "camming." Also referred to as webcasting and/or live video streaming. In order to webcam, five things are needed: a computer, a modem, an Internet Service Provider (ISP), a place to send images online, and a Web camera—also known as a webcam.

#### 2.2.12 **Rural and Remote Population**

The preliminary estimated resident population (ERP) of Australia at 31 December 2009 was 22,155,000 persons with 80% of the population living on the coastal fringes within 100 kilometres of the coastline. The remaining 20% live in rural, regional and or remote areas (Australian Bureau of Statistics, 2009). Only 6.5% of its landmass is arable; with 135,000 farmers producing a wide range of highly sought after diverse agricultural and forestry products (ABS, 2012).

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Australia exports around 65% of its farm products, 60% of its forest products, 98% of its wool and 51% of its dairy products (Department of Foreign Affairs and Trade, 2008). ‘Agriculture generates up to \$39 billion in gross values each year and employs around 370,000 people across Australia (Department of the Environment, 2010, np)’.

Maintaining a good state of mental health among Australian farmers is an important economic aspect of research, given farmers’ importance to our national food security and export income.

### **3 ISSUES IN THE WELL-BEING OF FARMERS**

#### **3.1 Tyranny of Distance**

*The 'Tyranny of Distance'* was first described by Geoffrey Blainey in the 1960s, to paint a picture of Australia's remoteness and its problems to the rest of the world. In his preface to *The Tyranny of Distance* Blainey declared:-

Distance is as characteristic to Australia as mountains are to Switzerland. By sea lanes or airplanes most parts of Australia are at least 12,000 miles from Western Europe, the source of most of their people, equipment, institutions and ideas. The coastline of Australia stretches for 12,000 miles and the coast encloses almost as much land as the USA, excluding Alaska. The distance of one part of the Australian coast from the other, or the distance of the dry interior from the coast, was a problem as obstinate as Australia's isolation from Europe (Blainey, 1966, p 273).

While Australia now focuses on the trade and trades more closely with neighbours of Indonesia, China, Japan and India, two things never change in relation to Australia's land mass; its geographical location, (as the world's largest island and smallest continent located in the Pacific Ocean), and its size. Blainey was right in his observation and description with distance being its greatest disadvantage.

Australia is approximately the same size as America, excluding Alaska, being 7.7 million square kilometres. Australia extends well beyond the mainland continent and Tasmania, including about 12,000 islands. While most of these islands are small, the United Nations Convention on the Law of the Sea allows Australia jurisdiction over large tracts of the ocean and seafloor that surround it (Australian Bureau of Statistics,

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2010). Overcoming the tyranny of distance over such a huge land mass is an objective goal that producers, manufacturers, entrepreneurs, local, regional, state and federal legislators, (including local and regional councils), public and private service providers, farmers and telecommunication companies and health care providers find challenging.

### **3.2 Farmer well-being**

Australian researchers have shown some of the impacts of living in a rural area are that rural people's health is poorer than those who live in cities, largely due to decreasing availability of the services in primary health care, allied health care, and the services of specialists. Suicide rates across most age groups for men are higher in rural and remote centres and for women in the 30-44 year age group (Caldwell, Jorm, & Dear, 2004).

Those in certain areas face longer distances to travel, plus the burden of the added expense for accommodation and of rising and already expensive fuel costs. Rural people face a serious lack of qualified service practitioners, including doctors, nurses, allied health professionals, paramedics and dentists. This has only partially been addressed, with limited success, by using workers who have been trained outside Australia (National Rural Health Alliance, 2011).

A recurring theme well documented in the literature is that farmers are disadvantaged in many areas. Farmer health in Australia is critical in relation to the current suicide rate and farm injuries (Judd, et al., 2006). The suicide rate is double the national Australian average, with one farmer committing suicide every four days (AAP, 2008; Fragar & Franklin, 2000; Judd et al., 2006)

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There has been limited research examining the mental health and well-being issues experienced by farmers and their families. 'Suicide is usually associated with mental illness, which, in farming communities, appears to be particularly stigmatized and poorly understood' (Gregoire, 2002, p.471). Researchers have reported that the most common methods of suicide among farmers were firearms, particularly hunting rifles and shotguns, followed by hanging and motor vehicle exhaust gas. These methods accounted for approximately 81% of all suicides in both farm manager and agricultural labourer groups. Farm chemicals were the next most common method of suicide (Page & Fragar, 2002a).

Farmers in Australia have higher death and morbidity rates than the general Australian population (Fraser, Smith, et al., 2005). Often this leads to financial and social counselling needs for farming families. Farmers are overrepresented in farm industry statistics compared with farm workers and managers (Troeth, 2004), requiring adjustments in the workplace and trauma counselling for the injured and family and worker witnesses. The current rate of farm tractor fatalities alone is one tractor death every eleven days (Australian Workers Union, 2010).



## **Farming Stress**

There is a range of stressors that are indicative of farming. Stressors that Judd et al, describe as being:

Financial difficulties, government bureaucracy, decision making, family/intergenerational conflict, complexity of work and workload, personal family problems, and isolation and loneliness (2006, p. 1).

Their research also identified that in addition to the stressors listed; their subjects identified chronic illness, sense of responsibility and living in a small close knit community as additional stressors. They identified business related pressures as: finance, drought/ weather, meeting government requirements, family, time, employees. Family related pressures were reported as being: finance, time, drought/weather, government, family. These pressures are almost identical, with little separation between those cited for business and family (Judd, et al., 2006).

Farming is unique among industries, as farmers live with their families on the family farm. Business and family are interlinked, with both sharing the same physical boundary of the property (Fragar, Kelly, Peters, Henderson, & Tonna, 2008).

‘There is an intimate connection between the farm as workplace, home, career and family ... a threat to one is a threat to all’ (Gray & Lawrence, 1996, p. 175).

This is consistent with the view of The Australian Centre for Agricultural Health and Safety (2008), that produced a farm family business handbook, titled ‘Managing the Pressures of Farming’ which states:

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The farming family is unique in that work and home life is in the same location. Many farm families are also isolated from services which present special circumstances in which they have to function such as education and social interaction (p.29).

‘The complexities of the family farm have become increasingly stressful. The current impact of farmers’ social health is partly due to climate variability and continued legislative regulations’ (Australian Centre for Agricultural Health and Safety, 2008, p. 29).

There is no standard retirement age for farmers. Many parents maintain the family farm structure beyond typical retirement age, resulting in a dependent relationship with younger family members who are also working on the family farm (Franklin, Mitchel, Driscoll, & Fragar, 2001). Transition in farm ownership between family members can lead to conflict and stress within the family farm (Gray & Lawrence, 1996). Succession, where the property is inherited by the next generation in the family is part of ‘family tradition’. This custom is of concern for the farming parent(s) because the children may have left the property for other forms of income through education and training, or that there is a farm debt or the farm has been running at a loss and therefore there is nothing to leave the children (Hossain, Eley, Coutts, & Gorman, 2008).

There is also the issue of the family farm being sold through legal process, either through the various *Family Provision Acts* of state jurisdictions, or *Family Law Act 1975 (Cth)*. These Acts apply where family members or partners are not adequately provided for through wills and estates and/or through the challenges of divorce. This can often lead to bitterness and disconnection from within farming families,

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particularly for those who have been historically, spiritually and emotionally connected to the land. Their circumstances, for example ill health or disability, may lead them to take action that would otherwise be unnecessary for long term financial survival. This can create dispossession for them from the land, and estrangement and disconnectedness through their loss of belonging to their family, leaving them isolated. In addition, those who continue farming can have their farmer well-being destabilised, through the adversarial and expensive legal process. This can also be true for those farmers who have bank loans foreclosed and in the worst cases, farms repossessed, due to the loss of crops and livestock as a result of severe weather conditions such as drought. These can have severe financial repercussions for farmers and hence impact on their well-being and family unit.

It has been suggested that farmers have a limited capacity to identify and acknowledge these stressors (Judd, et al., 2006). This may often lead them to accepting more and more responsibility, with limited ability to deal with the overwhelming decision making processes. The difficulties farmers face in making effective decisions impacts on both their personal and professional life. Fraser et al, cited by Hossain et al, (2008, p. 347) state:

The farming environment has a unique set of characteristics that are potentially hazardous to mental health.....

Worrisome anecdotal evidence is appearing for a recent and rapid decline in the mental well-being in farming communities in Australia and an increased incidence of suicide (Hossain, et al., 2008, p. 343).

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Brumby et al (2006) concur, with, 'Farmers are aging, working harder, working longer and increasingly relying on family members to provide extra labour to financially survive' (p.3).

There is a steady decline in numbers of farmers (Western Australian Farmers Federation, 2008) and hence the reduction of their local peer networks within the country contributes to their social and professional isolation. This can have a detrimental effect on their mental health and their sense of belonging, which in turn can lead to isolation and depression. Abraham Maslow (1943) determined, through his Theory of Motivation that a sense of belonging is one of the important aspects of human survival.

### **3.2.1 The Changing Face of Australia's Agricultural Industry**

There are many stressors associated with farming as detailed above; however, one of the major stressors research has uncovered is the changing face of the agricultural industry. The changes include government policy, technology, globalisation, changes to the economy, climate variability, succession and intergenerational issues. In addition, the pressure of coping with the day to day running of the farm has been compounded by the increased need for further education and training in the use of technology. This may include the use of computers, more sophisticated farm equipment, adapting to the new digital age for radio and television coverage, a necessity for keeping abreast of the outside world past the farm gate. In addition, there is the constant requirement to keep informed of changes to government policy and legislation, the economic market and farm management issues.

With such an array of factors to manage it is unsurprising that it contributes to the substantial pressures already faced by farmers. These pressures in turn impact on

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their farmer well-being, as statistics for suicide, and those losing or leaving their farms demonstrate. Coping with these pressures may be aided by seeking help in the form of counselling and peer support from appropriate services.

### **3.2.2 Mental health and well-being programs and services available to farmers**

Many government agencies fulfil requirements by imposing the urban model of service delivery which is ignorant of rural culture (Alston, 2010). There are currently a number of programs and services provided by government and non-government organisations for 'farmer well-being' and those living in rural and remote regions which are specifically targeted. Some have been especially designed for farmers, and others that are more generic services for the general population, to which farmers also have access. Further, the availability of public transport for farmers and their families, or people living in rural communities is almost non-existent; therefore accessing quality health care is almost impossible (Brophy, 2002).

In Australia there exists a not-for profit, independent nationwide organisation that is dedicated to providing education and prevention programs to increase awareness in understanding anxiety, depression and mental health related disorders. This organisation is called Beyond Blue which, among other things produces fact sheets. On the back of these sheets are listed many organisations' contact details that farmers can access by phone and internet ([www.beyondblue.org.au](http://www.beyondblue.org.au) or phone 1300 224 636). Other national organisations which provide free services to rural communities include Lifeline, a 24 hour information and referral service, Centacare where available, Crisis Support Services Inc.(CSS) which manages the free nationwide suicide call back service, along with 10 other help-lines including Mensline Australia and Beyond Blue information line. Centrelink provides financial welfare assistance to farmers and the Australian Financial Counselling Service also provides advice on

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financial management. The Country Women's Association (CWA) is the largest women's organisation in Australia whose aim is to improve the conditions for women and children and make life better for families, especially those living in rural and remote Australia. CWA is a self-funded, non-party political and non-sectarian organization and is spread far and wide throughout the country and is available for farming women who seek social support (Country Women's Association, 2008). There are also state government departments such as Departments of Health which offer face to face counselling through Community Health Centres.

In addition to the above, there are individual research projects, under the auspices of Mental Health First Aid Training (MHFA), whose researchers are attempting to assist farmers. One such project is 'Enhancing the knowledge and skills of advisory and extension agents in mental health issues of farmers'. It was designed to deliver need-based mental health training to agricultural extension agents (AEA). The underlying rationale of this (MHFA) training for farmers is that farmers with mental health problems can be assisted by those in their visiting business network, but that network members often lack the confidence and skills to provide basic help and appropriate advice. Once trained the AEA's can advise the farmer on how to access resources, such as counsellors and health professionals including GPs, education resources, local networks and referral pathways (Hossain, Gorman, & Eley, 2009). All these programs, however, have their limitations as they do not address the face to face need for direct counselling assistance by *overcoming the tyranny of distance*.

### 3.2.3 Willingness and barriers to seeking help

There has been little research on the actual question of farmers' willingness to access services regarding issues of farmer well-being via web cameras for counselling in the comfort of their own homes. There is also a lack of counselling in rural and remote

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areas. Elaine Crosby, from the University of New England, Armidale, identified the delivery of general counselling services to farmers as one of the main gaps in service provision. These services include, but are not limited to, stress and crisis intervention, marriage and relationship and family counselling (Crosby, 1998).

As indicated above, research has shown that farmers experience various stressors as a result of their occupation and lifestyle. The alarming suicide rates for farmers compared to the general population have been well documented (Fraser et al., 2005; Judd, et al., 2006; Page & Fragar, 2002) This may indicate that there may be some prevalence of farmer well-being issues in farmers which remain unidentified and unaddressed, as help is often not sought by individuals who need it. Research cited in the Australian National Male Health Policy (2010) stated:

It has been found that male participants were less willing than female participants to attend health education sessions, were less interested in information on illness prevention, and were less willing to have an annual health check or to seek advice from a medical practitioner (Department of Health and Aging, 2010, p. 20).

If males in general are reluctant to seek help, research shows that it is especially true of males in the farming population (Alston, 2010; Botterill, 2000; Hossain, et al., 2008).

This is consistent with research by Judd et al (2006), whose study found that the majority of participants had not given significant thought to accessing help for a mental health problem. Further, that support would probably not be sought, by themselves or others, from mental health professionals. In addition, they identified their preference to seek help instead from personal support networks, and noted that there were issues of limited acceptance regarding mental health and its associated

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stigma. This is supported by a survey by SANE Australia (SANE Australia is a national charity working for a better life for people affected by mental illness), who found that 76% of consumers and carers of people with mental health problems experienced stigma at least every few months (Mindframe National Media Initiative, 2011).

Furthermore, professional health workers in rural and remote areas 'have titles that describe them as professionals who treat clients with mental health issues' be it psychologist, mental health nurse, suicide prevention worker, social worker. 'These labels act as a deterrent to rural people seeking counselling services. The stigma associated with mental illness sees people distancing themselves from such services (Crosby, 1998)'. Acceptance of help is hampered by many farmers' belief in stoicism and perceptions of small community, stigma, visibility, anonymity, confidentiality, perceptions, privacy, time, tyranny of distance and accessibility to services (Judd, et al., 2006). Another barrier found was the lack of access to qualified health providers and services in the locations in which they live (Services for Australian Rural and Remote Allied Health (SARRAH), 2008). The reluctance to use face to face counselling services may relate to all of the above issues for farmers, when accessing these services.

The use of the internet can both reduce the potential barriers for farmers working face to face with social workers and also improve access to social workers and appropriate services to promote farmer well-being through the internet. Moreover, internet-based programs for depression and other mental disorders, combined with clinical guidance, can result in clinically significant improvements which have been shown to impact positively against anxiety and depression both contributing factors



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to farmer well-being. (Perini, Titov, & Andrews, 2009) Even given the apparent reluctance of farmers to use face to face counselling services, there is also a lack of qualified social workers in rural and regional areas. In the following section of this review, relevant research and professional practice issues for social workers are considered in more detail, as is the opportunity for information communication technology (ICT) to reach into the homes of farmers in direct service delivery for counselling.

### 3.2.4 How Farmers are Currently Using Information Technology

The changing face of farming is reflected in the increasing use of the internet by farmers as an invaluable tool to run their business efficiently and effectively.

According to Nuthall (2004):

Farmers are increasingly purchasing and using on-farm computers to provide decision support information and assist in meeting their tax and other reporting commitments having purchased, the farmers clearly believe the purchase is justified (p. 19).

This is supported by Just and Just (2001), who state, ‘some of the advantages of the internet are obvious and highly touted: inexpensive interaction among remote market participants, rapid access to weather forecasts and pricing information and the like’ (Just & Just, 2001 2nd Quarter, p. 1). These many uses of the internet enable farmers to increase farm productivity, largely due to the vast scope of the World Wide Web (www). However, the location of farmers affects the use of information technology services. According to Australian Communications and Media Authority (ACMA) 2008, satellite connection was the prevalent type of connection across all states, except Victoria. Overall, 74% of farmers have a connection, with only 5 % of those

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citing only personal use of the service (Australian Communications and Media Authority, 2008b). According to Tindal (2008) those 68% of farmers without a connection cited cost and availability of service as a deterrent, rather than willingness to use the service. On average, cost of satellite internet was AU\$59 per month, for ADSL AU \$37, cable AU\$36 with wireless being AU\$33 (Tindal, 2008).

‘One third of farm respondents indicated one of the main uses of the internet was for shopping and paying bills, with most common purposes travel (30%), books, magazines, newspapers (13 %) and CDs/tapes (12 %). Eighty four per cent uses the internet for both personal and business use, 11 per cent used the internet solely for business, and only 5 per cent use the internet for personal use only. The most common uses were for weather information and banking, followed by agricultural and market information....this trend is supported by an ABS survey conducted in 2004, which showed farms rely on the internet for email and obtaining weather information’(Tindal, 2008).

The Australian Communication and Media Authority (ACMA) statistics state 32% of farmers access the internet more than once a day, and 14% at least once a day (Australian Communications and Media Authority, 2008a,). Tindal also states that 39% of farmers have dial up and 35% have broadband but with a slower connection (Tindal, 2008). ABS broadband figures cited in ACMA (2005) state, ‘Nine per cent of all farms had a broadband connection for business operations. Agscan data quotes within this report shows that broadband connections have increased significantly since June 2005 (Australian Communications and Media Authority, 2008b, p.10). This increase from 9% to 35% in three years supports Agscan’s data.

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While farmers have embraced the use of information technology, they have raised some concerns regarding security and privacy of information and the pace at which the technology itself changes (Australian Communications and Media Authority, 2008a; Commonwealth of Australia, 2008).

### **3.3 Conclusion**

In summary, significant factors for the need for counselling services for farmers include their high rate of suicide, isolation, family dynamics, stoicism, family custom, climate variability and impact on income, long term climate forecast unpredictability, the changing face of the family farm, lack of services and specialists, competing land demands, government regulations being imposed upon them, and general farmer well-being status. How then can we provide these services, and in the process overcome the tyranny of distance? Information Communication Technology is one solution, particularly given the current Rudd government's (Australian Labor Party) focus on the National Broadband Network (NBN) in rural and remote Australia with the Interim Satellite Service (The Sydney Morning Herald, 30 June 2011) and Fixed Wireless Service (Department of Broadband Communication and the Digital Economy, 2011b). This will be discussed further in the information technology section of this review.

Reasons that support access by farmers to social workers for counselling services via the internet are abundant, as listed above, but there appear to be two service factors to consider. First, *overcoming of the tyranny of distance* - Distances to travel and costs incurred in consuming and accessing social work services where they do exist. These pose formidable service problems (Alston & McKinnon, 2001). Secondly, there is an inability to educate, train and retain social workers in rural and remote

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cities and towns. In smaller communities people know each other, so privacy and confidentiality cannot be assured (Services for Australian Rural and Remote Allied Health (SARRAH), 2008). The social work workforce may be able to be sustained in rural and remote areas via face to face real time service delivery through the internet for counselling.

Given the possibility now of technological service delivery to those in rural and remote areas, all three aspects, namely farmers, social workers and information technology may be able to be synchronised.

Given these considerations it is proposed that this research will investigate:

[Will] Farmers in the area previously known as the rural shire of Crows Nest Queensland access live real-time professional counselling services by social workers using web cameras via the internet in the privacy of their own home?

The following section of this literature review discusses social workers, followed by a section on information technology. Chapter four investigates the most appropriate methodology for this research.

## **4 SOCIAL WORKERS**

### **4.1 Overview**

As previously stated, farmer health in Australia is critical in relation to the current suicide rate and farm injuries (AAP, 2008; Fragar & Franklin, 2000; Judd et al., 2006).

The social work workforce and the roles of rural social workers in rural communities, the challenges they face with professional and personal issues, specialist training and recruitment and retention will be detailed in this section of the literature review, to give the reader an understanding of how closely aligned social workers are in experiencing and understanding the issues associated with farm stress in rural and remote communities. In addition, how they, like farmers, are using information technology in their occupation is an important precursor for the reader in describing how social work practice is pertinent in being able to service the needs of farmers, by being able to provide an acceptable on-line live counselling service specifically targeted for them.

#### **4.1.1 Introduction**

Social workers are influenced by the concept of social justice, responding to identified needs and discovering gaps in service delivery (Hepworth, Rooney, & Larsen, 1997). The profession's main focus is in aiding individual people, groups and communities to become self-empowered and independent, impacting on social change (Zastrow, 2010). The potential role of the specific profession of social workers to this research study is related to the flexibility in their training and their ability to adapt that flexibility to practice with any 'at risk' group of people, which includes farmers. The reason for this flexibility is diversity. Social work is a

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professional and academic discipline that draws on the study and practice of a range of other disciplines in determining their own. However, the researcher understands that the general public may be confused as to the purpose of social work professional practice, the necessary tertiary qualifications and the code of ethics binding to the national professional association. For these reasons an explanation of what a social worker is, and what they do and hence where they work, will be clarified. This clarification will give the reader an understanding of how social work practice is applied in rural and remote areas. There will also be a particular emphasis on mental health and rural social workers in rural Australia and the social work workforce.

To avoid any further confusion, the necessary tertiary eligibility requirements to become members of their self-regulated professional association, the Australian Association of Social Workers (AASW), along with an explanation of the code of ethics and the tertiary training necessary to become a social worker and work within mental health, are included in Appendix B.

### 4.1.2 **Definition of Social Work**

Social Work is an international profession (International Association of Social Workers, 2000). The definition of social work varies from country to country and organisation to organisation. This factor demonstrates the difficulties of creating a definition of what social work is and what social workers do, due to the resourcefulness of the profession and the various roles that it encompasses.

The Social Work Task Force Interim Report to Government in the United Kingdom has signalled its intent to come up with a new definition of social work to counter public misconceptions.

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What with the negative coverage that social work attracts, it is hardly surprising that the public is not clear about what social workers do. They are led to believe that professionals swoop in and steal babies from families, give older people with limited mobility a bath and then make their dinner. Other frontline public sector workers have no such trouble; the work of doctors and teachers is much more clear cut in the public mind (Community Care UK, June 5 2009 p.1).

Charles Zastrow, in his 2010 edition of his text book, widely used throughout the world, defines social work and its purposes as follows:

Social work is the professional activity of helping individuals, groups, or communities enhance or restore their capacity for social functioning and creating societal conditions favourable to this goal. Social work practice consists of the professional application of social work values, principles and techniques to one or more of the following ends: helping people obtain tangible services, counselling and psychotherapy with individuals, families, and groups and helping communities or groups provide or improve processes. The practice of social work requires knowledge of human development and behaviour; of social, economic, political and cultural institutions and of the interactions between all these factors (Zastrow, 2010, p.5).

Social work is defined by the International Federation of Social Workers as:

The social work profession promotes social change, problem solving in human relationships and the empowerment and liberation of people to enhance well-being. Utilising theories of human behaviour and social systems, social work intervenes at the points where people interact with their environments.

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Principles of human rights and social justice are fundamental to social work. (International Association of Social Workers, 2000, np).

The above quote shows the diversity of the profession in its entirety and demonstrates the difficulties involved in defining social work and how it can be applied to any individual, group or community, locally, nationally and internationally.

For the purposes of this thesis, social work can be defined by incorporating the AASW Practice Standards for Mental Health Social Workers, as follows:

Social work's central concern is the social context and social consequences of mental health problems (Australian Association of Social Workers, 2008a, p.9).

Furthermore:

The purpose of practice is to promote recovery, restore individual, family and community wellbeing, to enhance development of each individual's power and control over their lives and to advance principles of social justice. Social work practice occurs at the interface between the individual and the environment. Social work activity begins with the individual and extends to the contexts of family, social networks, community, and the broader society (Australian Association of Social Workers, 2008a, p.9).

The Australian Association of Social Workers, Social Work and Mental Health Position Statement is:



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The social work profession has a strong commitment to improving individual and societal mental health and wellbeing. Social work promotes respect for the human rights of people with mental health problems, and seeks to enhance their access to opportunities for full participation in social and economic life (Australian Association of Social Workers, 2008c, p.1).

This position statement forms part of the ethos in dealing with farmer well-being.

### 4.1.3 Social work as a vocation – what they do

In the context of this study the work of social workers relating to mental health and farmer well-being is its primary focus, although there are many other areas within which social workers work. The following gives some detail of these, to demonstrate how social workers work within rural communities.

The assessment and treatment of mental health clients by social workers is common, particularly in rural areas where often there are limited mental health specialists. However, ‘Social workers in all fields of practice have at least some clients with mental health problems, often in combination with other difficulties’ (Australian Association of Social Workers, 2008c, p.1).

Social workers base their practice on a strong commitment to social justice, acknowledging the rights of people with mental health problems, as set out in the United Nations Principles for the protection of persons with mental illness and the improvement of mental health care (Australian Association of Social Workers, 2008c; United Nations, 2001). This is the basis of the Australian Association of Social Workers Social Work and Mental Health position statement on Mental Health 2008 as stated above (Australian Association of Social Workers, 2008a).

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Examples of the kinds of work social workers do relating to mental health issues include counselling and advocating for patients in rural and regional hospitals during their stay, or, upon discharge, organising services such as meals on wheels to enable patients to effectively recuperate within their own home, plus any appropriate follow up monitoring. They may also be employed in either an extended inpatient service at regional and rural hospitals or specific purpose built centres which provide medium to long term inpatient assessment, treatment, therapy and rehabilitation for individuals who are sufficiently ill or disabled by their mental disorder to be unable to be cared for by their local integrated community and acute inpatient mental health services. By 2004-05, social workers, 'employed in specialist mental health services made up a third of the allied health workforce for public mental health services (Australian Association of Social Workers, 2008c, p. 2).' In that year, social workers comprised the fourth largest professional group in the public mental health workforce after mental health nurses, medical staff and psychologists' (Australian Association of Social Workers, 2008c, p.2).

Social workers may also use their skills to work effectively within a specifically defined rural and remote community context. Working in a rural community or neighbourhood centre, organising or coordinating and managing events such as healthy after school or holiday care for rural children, capacity building for minority groups (for example older farmers, 457 visa seasonal workers), co-ordinating community development programs or, for example, by educating farmers on their rights and obligations on their lease agreement to their farm workers or tenants. They may practise as private practitioners in rural communities, conducting individual and group counselling with farming families and members or research policy on rural populations for a government department. They may also be employed by regional

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universities to teach counselling or psychotherapy skills and various other subjects that they cover in their tertiary training programs. These are just a few examples of what social workers do (AC People, 2004). Social Work values are based on five principles: human dignity and worth, social justice, service to humanity, integrity and competence (Australian Association of Social Workers, 2010a) and as such their training incorporates all of these aspects.

### 4.1.4 The Social Work Workforce

There is an extreme workforce shortage of Allied Health Professionals in some rural, remote and very remote areas of Australia where the need is greatest.

The health care workforce incorporates a range of vocations operating in different industry settings; medical practitioners, nurses, allied health professionals (physiotherapists, dieticians, occupational therapists, optometrists, clinical psychologists, social workers, indigenous health workers and other occupations, working in hospitals and other institutional settings (such as residential care facilities) including community settings and private practice, community health services and non-health settings (such as schools and workplaces). There are over 450,000 paid health professionals in Australia, of whom over 50 per cent are nurses, 12% medical practitioners and 9% allied health professionals' (Segal & Bolton, 2009).

Allied Health workforce data to effectively manage the current workforce and inform future workforce planning needs to be improved (S.A.R.R.A.H, 2004). Creating an allied health workforce to cover this critical need over vast distances, and recruiting and retaining an allied health workforce in these areas has been fraught with difficulties (National Rural Health Alliance, 2011). The latest investigative

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descriptive study with cross sectional surveys of allied health professionals was conducted in NSW. The sample size consisted of 1879 respondents from more than 21 different allied health occupations. The purpose of the study was to determine the demographics, employment, education and factors affecting recruitment and retention of New South Wales (NSW) rural allied health professionals. This study clearly supports the statement that:

Reliable data are published for the medical and nursing workforce but there is remarkably little information available about the allied health workforce. The 2009 audit of the regional and rural health workforce called attention to the lack of reliable allied health workforce data. It relied on Australian Bureau of Statistics (ABS) 2006 census data, the only national data source for many allied health professions. The few descriptive studies that are available are based on small sample sizes, are geographically limited or otherwise compromised (Keane, Smith, Lincoln, & Fisher, 2011, p.38).

The levels of recruitment and retention of Allied Health professionals (AHP) in rural communities is concerning, despite the increases in training. Allied Health professionals do not include doctors or nurses. Statistics that are available from SARRAH's 2004 Allied Health in Rural and Remote Australia report indicate that there is a significant increase in the percentages of allied Health Personnel (AHP) being trained through Australia's tertiary institutions. However, the recruitment and retention process for AHP in rural and remote areas continues to plague its inhabitants in need of servicing. This indicates that there is a poor level of recruitment and retention. In comparing the 1996 to 2001 census data of trained allied health professionals, there was an increase nationally of 18% covering all

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fields of allied health. Social workers in particular showed an increase of 21% during this period.

The existing social work workforce is one of the largest amongst allied health disciplines in Australia, the workforce of approximately 12,400 exceeding clinical psychologists by some 4,000 workers (Australian Institute of Health and Welfare, 2006). However, many identified social work positions still remain unfilled (SARRAH), 2004). This indicates that the need is not being met within the Community Allied Health Workforce. ABS statistics (2006) indicate that there were 18,969 citizens who showed on census night that they had a professional social work qualification, but were not actively employed in the Allied Health workforce.

This report indicates that social workers can be employed in areas other than allied health, for example other government departments, industry, welfare, education and justice. It also indicates that on the census night they were either employed in other health professional jobs including management, other aspects of the health workforce or were not in the workforce (could be retired, unemployed, on extended family leave). This could also indicate a substantial wastage of a substantial section of the allied health workforce (SARRAH), 2004, p.2).

The Commonwealth Department of Education, Employment and Workplace - Relations (DEEWR 2008) claims that the Australian Health Workforce is in crisis and was predicted to worsen with the worst contraction of services being in rural and remote regions. Those most affected by the crisis and future lack of the allied health workforce will be the Indigenous, low-income and older Australians, who already have compromised health. They claim that the small percentage of allied health workers providing services in rural and remote Australia is dwindling. The

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increasing gloom of the allied health workforce, they state, has to do with supply and demand. Demand include the rise in the aging population in the next twenty years, given the birth of the current ‘ baby boomers’ during the post war era, accompanied by the increase in chronic illness as they age (DEEWR, 2008). The supply factor is the fact that the allied health workforce are expected to move to other occupations, adjust their own working hours according to lifestyle, retire from the workforce or change their locale to larger urban or regional centres where there is a greater diversity of social amenities (Boyce, 2008, p.108).

The same trend in rural and remote regions is also happening in the Not for Profit Sector, with the Productivity Commission reporting a shortage of social workers in all states particularly in rural, regional and remote areas.

In 2008, 64 % of community service organisations reported difficulty in attracting appropriately qualified staff (ACOSS, 2009). DEEWR confirmed these findings, reporting skills shortages in all states and territories for social workers in 2008, and skills shortages for welfare workers in New South Wales and Queensland and recruitment difficulties in other states (DEEWR, 2009c; Productivity Commission, 2010, p.283).

The reasons for this have been identified as lower wages, limited training opportunities and in smaller organisations, a lack of human resources knowledge to effectively market the benefits of working in the sector.

There are concerns that the failure to engage appropriately qualified staff can have adverse effects on clients. Submissions to the National Disability Strategy reported that many staff in this sector were poorly trained, lacked sensitivity and offered

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inadequate or poor quality care that, in some cases, extended to negligence (NPWDACC 2009; Productivity Commission, 2010, p.283).

### 4.1.5 Rural Social Workers

The complexities of service delivery brought about by the tyranny of distance for rural Australia have for decades been overlooked, due to the practice of population based services, which works on the economic principle that sees the largest populations justifying commercial and government operations and thereby being able to access services. This factor has impacted on the availability of services being provided to rural and remote Australia. This means that rural people are disadvantaged in availability and accessibility to health services, compared to their urban counterparts (Green, 2003; Australian Association of Social Workers, 2008c).

Rural social work (RSW) therefore is challenging for many reasons, on both a professional and personal level and it is fundamentally different to urban social work, due to the lack of anonymity for social workers, their colleagues and their clients. Green (2003) stated:

RSW practice has taken a generalist approach (Lynn 1990, 1993; Cheers 1998). As specialist services are few, Rural Social Workers work across a range of methodologies and intervention strategies. A generalist approach is not only a mode of practice which incorporates different modalities, and requires workers to have the ability to work across different fields of practice; it also includes concepts of interconnectedness and interdependence. Lynn (1990: p.17) adds that not only is a generalist approach appropriate to overcome the lack of specialist services, it is also most culturally compatible with rural life. RSW must have a holistic focus, with a very diverse knowledge base spanning economics and politics, rural sociology and

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geography and knowledge of various intervention strategies. It is important to utilise knowledge gained from the community and its members, and to work in ways that are sensitive to the community. Practitioners need to be flexible, creative and able to improvise to provide services in locally relevant ways (Sturmev & Edwards, 1991; Cheers 1998; Martinez-Brawley 2000).

The researcher, as an allied health professional social worker working in rural and remote areas in New South Wales and Queensland, has experienced that it is almost impossible not to know about the client, where they live or their familial background. This is supported by Martinez-Brawley (2000) who comments;

‘that in many rural areas it would be impossible not to know a client, or know of a client in circumstances other than the professional work. However, this creates several issues, in particular issues of ethics, anonymity, confidentiality, and privacy’ (p.212).

This is supported by Green & Mason (2002), who state:

For the social worker, ethical dilemmas can arise with the management of information gained indirectly as a result of living and working in the same community. Other information is obtained about a client’s circumstances in informal settings, out of work hours and is sometimes sought or given by friends or family of the client. It is critical to develop strategies to deal with these situations and to consider the validity of receiving and using this information (Green & Mason 2002, p.214).



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Social workers are trained extensively in the practice of confidentiality; however they are often expected or called upon by members of the community or other practitioners to share sensitive material. Due to the nature of the employment of social work positions, they are often privy to information that people feel they have a right to know. Due to ethical considerations, this however, is unable to be disclosed. This often proves difficult where legislative processes are in place. For example, a situation may arise where a juvenile is being released from detention on a sex offence after serving their judicial sentence, and the social worker has been consulted by the detention centre and put all necessary processes in place to ensure a swift and supported return to the community, only to find that if he reoffends, people may believe they should have been warned in some way and members of the community retaliate for what they may see as practices which protect the perpetrator and not the community. For many social workers this tension is constant.

Personal safety is also a risk for the social work profession in rural areas. Reports of violence and harassment seem significantly high and there is some evidence that like nurses, this is taken for granted as part of their role, minimised, and its impact hidden. Its role in burnout, job dissatisfaction and vicarious trauma should be further investigated (Green, 2003, p.103).

The role of rural social work has its complexities and it maybe for many of these reasons that recruitment and retention of social workers is difficult for professional social work counselling in rural and remote Australia.

#### 4.1.6 **How Social Workers are using Information Technology**

Telemedicine activities started to gain attention in Australia in 1994. One of the key early driving forces was the then Commonwealth government body the Health Communication Network, which funded a number of innovative projects, particularly the teleradiology network, linking rural towns in New South Wales with St. Vincent's in Sydney, and the telepsychiatry network of the South Australian Mental Health Service. The Renal Telemedicine Network of the Queen Elizabeth Hospital in South Australia, which is a national benchmark for telemedicine evaluation studies, began operation in September 1994. The first of the Victorian telepsychiatry links also began in this period, resulting in over 36 installations by 1998 (Mitchell 1998).

A major impetus behind these early projects included the desire to provide equity and access to rural populations. Other driving forces behind these initial projects were an interest in using technology to save travel and other costs, and an interest in providing improved quality of care (Mitchell, 1998).

The provision of counselling and other health interventions over the internet is an emerging treatment modality (Swan & Tyssen, 2009, p.48). Therapy related services on the internet are called by a variety of names, including e-therapy, email counselling, on-line practice, e-counselling, web-based counselling, internet therapy and 'therapy email', on-line practice (Finn, 2002 p.403).

The increasing penetration of this technology offers great potential to enhance community access to health interventions. It is within this context that individuals are seeking online counselling for a range of concerns, including mental health issues, alcohol and other drug problems, relationships, gambling and internet addictions. (Swan & Tyssen, 2009).

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Social Work arises from the focus on narrative and face-to-face dialogue, neither of which has been traditionally considered easily replicated by ICT. In 1911, Mary Richmond, a social work reformer, was writing to encourage reluctant social workers to use telephones. As far back as 1995, Phillips and Berman argued that common sense perception of information technology and the characteristics of social work, namely compassion, positive regard, and empathy in the traditional personal counselling relationship is the antithesis of the characteristics of information technology, which are logic, mechanistic processing and systemisation. Indeed, it is possible to argue that the antithesis runs deep. The values to which many social workers adhere therefore, run counter to the technical rational and militaristic values that have informed the original design of the internet (Parrott & Madoc-Jones, 2008). However, research into use of ICT shows a clear bias towards males. Henwood and Hart (2003) argue that the language of technology is masculine, with male values and attributes in the ascendancy and feminine attributes marginalised as against those of males (Parrott & Madoc-Jones, 2008). This may be an advantage to male farmers within rural Australia, as they may feel comfortable with the medium.

Online counselling is a more recent medium for provision of mental health services that has been taken up largely by private practitioners and more slowly by traditional mental health service providers (Ainsworth 2001). Online counselling is provided in a variety of forms, including synchronous, real time, 'chat', email, discussion boards, and interactive self-help (King, Spooner & Reid, 2003). Potential advantages for online counselling compared with telephone counselling are wider geographic reach, low threat, capacity of both providers and users to maintain full text records and, in the case of self-help, standardisation of services and low service cost (Young, 2005; King et al, 2003; Urbis Keys Young, 2003).

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The evidence base for online counselling is in the early stage of development, However, there is promising evidence that computer delivered self-help is effective for treatment of anxiety (Cavanagh and Shapiro, 2004) and depression (Christensen et al, 2004).

The social work profession has a strong tradition of 'radical' practice, a practice that seeks to change social relations so as to address poverty, oppression and exploitation. The technical approach does not allow space for such radical action. However, by seizing the potential of ICT to promote peer support, service users can be empowered at a political level to organise and promote their own needs (Parrott & Madoc-Jones, 2008).

The internet is used by social workers in various ways, providing access to information, resources, services and links to other practitioners. A growing concern of social workers is the ability to access information on the internet and there appears to be a disadvantage for certain groups of the population. According to Miller-Cribbs:

People must remember that resources are only valuable if people can access them. Social work must also concern itself with the widening gap between the information rich and the information poor, and pinpoint ways to increase access to oppressed populations. If not, there is a risk of isolating disadvantaged populations further (Miller-Cribbs, 2008, p. 156). This concept refers to the digital divide. Parrott and Maddock-Jones acknowledge that even though for our society, ICT is becoming a prerequisite for participation in the information highway, there is also the potential of exacerbating the digital divide (2008).

Research cited by Miller-Cribbs (2008) has shown that:

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Discrepancies between certain groups continue to prevail and expand in terms of computer use. Inequities in access based on income, education, race and ethnicity, age, gender, family structure, geographic location and disability status prevail (p. 158).

Miller-Cribbs also states that “Groups with the least access to IT are the rural poor, rural and central minorities, female headed households and young rural and central low-income households” (2008,page 158).

However, Swan et al. state that ‘ The accessibility afforded by online counselling has been identified as key to its appeal to clients, overcoming the constraints posed by distance, employment, child care responsibilities and health problems among others’ (2009, p.48).

## **4.2 Conclusion**

Social workers are a key profession in delivering clinical health and support services to all Australians when they need it, but also ‘to harder to reach populations, including low income and disadvantaged Australians, who cannot access more traditional and costly services’ (Australian Association of Social Workers, 2011, p. 1). Recruiting, training and retaining social workers in rural and remote Australia is fraught with difficulties. An online face to face counselling service model, may be one way of alleviating these constraints to service delivery in the bush.

## **5 INFORMATION COMMUNICATION TECHNOLOGY**

Historically, Australia has been able to provide a form of information technology for most of its citizens despite the tyranny of distance, beginning in 1854 by way of the traditional telegraph. Since this time of the ‘intercolonial telegraph network’, Australia has been able to move ahead with the rest of the developed world and has continued to provide services by way of telephony. By the 1930s, telephones within private households were starting to be considered a possibility for everyone, as was the motor car and portable radio. Since that time telecommunications in Australia has progressed and by the 1970s Australian households expected to have a fixed phone line, despite the tyranny of distance (Arnold, 2009).

The telephone has various uses in health care, such as dialling triple 000 to summon professional assistance during a health emergency, seeking other professional opinions, liaising with other professionals and service providers, scheduling appointments, giving distant health communication and monitoring clients by distance.

The concept of using telephone lines for exchanging written messages in addition to using voice between people became possible during the 1980s. Email services were established where people could receive written messages via the internet through their computers. The author at that time was using an Apple 2c compact computer, receiving emails and swapping files between colleagues. Initially most providers had a small geographical coverage (for example within one city) and many operated on a non-commercial basis, such as the Australian Public Access Network Association (APANA). Uptake of the net in Australia began to accelerate immediately before

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invention of the web, with enthusiasts and a range of organisations in the public and private sectors setting up news groups, swapping files and sending emails person-to-person. That was reflected in the growth of domain registrations – licence for web service (Arnold, 2009).

The increasing popularity of information and communications technology has given rise to telehealth and telemedicine. Historically the prefix tele has been added to the word health and consequently creates telehealth. The prefix tele is also added to the word medicine and consequently creates telemedicine. ‘Tele’ comes from an ancient Greek word meaning ‘distant’(Darkins & Cary, 2000, p. 2)’. ‘Telemedicine is the use of advanced telecommunications technologies to exchange health information and provide health care services across geographic, time, social and cultural barriers’ (Darkins & Cary, 2000, p.2).

Cultures have been using distant communication for telehealth since antiquity, using available communication technologies of the time to prevent and control the spread of infectious disease. Lepers were isolated from the rest of the community and used bells to warn people they were carrying the disease and not to come near. Ships flew yellow flags during the bubonic plague to warn people they were in quarantine and to stay away. People in Eyam in Northern England used signs and lookouts to keep all visitors out until the villagers died from the spread of the disease carried by the rat flea *Pasteuella Pestis*, which was responsible for the bubonic plague, or Great Plague as it was known.

There is therefore an underlying principle for us as human beings to communicate health information. We also do this culturally through our language. ‘G’day, How are you Mate?’ in greeting a fellow Australian is a genuine enquiry to greet and secure

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health information for one's own protection and security as well as show concern for another human being.

Telehealth has the power to communicate mass health information across the globe. The first example was in 1897 by telephone, when a child was diagnosed with croup (Darkins & Cary, 2000). In 1965 Michael Debakey, a United States cardiac surgeon performed open heart surgery and using Comsat's early bird satellite beamed images of the procedure live to a hospital in Geneva (Darkins & Cary, 2000).

Medical practitioners have been afforded opportunities to be able to practise at long distance and through varying terrains and large geographical obstacles to be able to see each other and discuss matters relating to health of patients. Thus, various health professionals are developing innovations in relation to expanding Telehealth. For example, there is currently a video-communication Telehealth site which is designed for use by physiotherapists, occupational therapists and speech pathologists. This is being trialled by Far North Queensland and Toowoomba through Queensland Health and the University of Queensland (Queensland Health, 2008) The trial provides on-line speech pathology, physiotherapy or occupational therapy assessments and treatments for patients in their own homes, while the practitioner can remain in the office.

The internet is a massive network of networks, a networking infrastructure. It connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet. Information that travels over the internet does so via a variety of languages known as protocols (Beal, 2011).



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The World Wide Web (WWW), or simply Web, is a way of accessing information over the medium of the internet. It is an information-sharing model that is built on top of the internet.

The Web uses the HTTP protocol, only one of the languages spoken over the internet to transmit data. Web services, which use HTTP to allow applications to communicate in order to exchange business logic, use the Web to share information. The Web also utilizes browsers, such as Internet Explorer or Firefox, to access Web documents called Web pages that are linked to each other via hyperlinks. Web documents also contain graphics, sounds, text and video' (Beal, 2011).

At the end of June 2011, there were 10.9 million internet subscribers in Australia (excluding internet connections through mobile handsets). This represents annual growth of 14.8% and an increase of 4.4% since the end of December 2010' (Australian Bureau of Statistics, 2011).

The internet provides an inexpensive and equitable service provision option, as it bypasses some of the barriers to service access and when people are in the action phase of using the internet this is known as being "online". This includes barriers such as tyranny of distance, as it removes the cost associated with travel and accommodation, and in some cases reduces the cost of services, with health information available on-line, and trials being conducted and services being offered for video conferencing, which may formerly have required a face to face consultation for counselling.

Video conferencing enables two people located in different sites to talk to and see one another, using a secure computer network that transmits sounds and pictures. Each participant in a video conference is located in a private room with a television

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screen, video camera, microphone and speakers. For example, Lifeline operating from Bundaberg, are now offering video conferencing to clients throughout the Wide Bay Burnett Health Service in Queensland at various Community Health Centres within the region (Clarissa Schmierer, personal communication 2011). This assisted the author when operating as a locum social worker in Gayndah in 2006, as it value added to the social work service for clients who did not need professional face to face social work therapy. These people could be assisted and were referred through to the Lifeline video counselling service that was conducting a pilot at Gayndah Community Health Centre in 2006. However, unlike web cam telecasting, clients do need to travel to the closest Community Health Centres within the region to access the video equipment where the counselling session will be conducted. It does still however, offer an option for confidentiality in rural areas as in Gayndah, for example, the equipment was located within an administration room of the hospital where the public do not frequent, thereby offering a sense of anonymity, as the client could be seen as accessing that part of the hospital to pay an account.

Education services are currently being provided online through Training and Further Education (TAFE) colleges and universities throughout Australia. This helps address the problem of equitable education, ensuring that rural and remote residents receive the same availability of education services through technology. Unlike written correspondence course material, on-line courses can be interactive and engage a number of applications that are suitable for distance learning and interaction, not only between students and teachers, but also between students for tutorials and social relations and course assistance.

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Technological use of the internet has been spreading rapidly and at present there are organisations within the public domain which are thinking about developing video conferencing services for their clients. One example of this is RelationshipsOnline, which currently uses a system of typing on line from the client to the counsellor. This uses a third party interceptor such as MSN Messenger, which offers a real-time emailing service. Alternatively, the service can use this in conjunction with telephone counselling, depending on the client need and the reason for counselling. They also offer face to face counselling for people who can access these services. Their website has advertised that a video conferencing service exists, however it does not offer this service to couples at the moment (Admin, 2003). In researching this site in 2011 there appears to be little development since 2003 in how services are offered, despite web camera availability and popularity.

Various applications have made it possible to offer online face to face services through web cameras. There are many examples now of live internet counselling that are similar to the author's 1998 original concept and design, using various applications, but the most popular is a program application called Skype. From January 2006 there has been a flurry of on-line counselling services now operating through the internet using Skype, particularly on YouTube.

Skype was founded in 2001, by Kate Hyland. It is a proprietary voice - over Internet Protocol service and software application originally created by Niklas Zennstrom and Janus Friis. It was purchased by Microsoft in 2011 for \$8 billion dollars and hence is now owned by Microsoft. At present Skype can be downloaded and used for free if internet access is available. Counselling can be offered through text, audio and live video through Skype.

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Registered users of Skype are identified by a unique Skype Name, and may be listed in the Skype directory. Video conferencing between two users was introduced in January 2006 for the Windows and Mac OS X platform clients. Version 5 beta 1 for Windows, released 13 May 2010, offers free video conferencing with up to five people. Skype for Windows, starting with version 3.6.0.216, supports "High Quality Video" with quality and features, e.g., full-screen and screen-in-screen modes, similar to those of mid-range videoconferencing systems. Skype audio conferences currently support up to 25 people at a time, including the host (Sohn, 2011, np).

Despite the flurry of live counselling sites there is limited professional literature worldwide in relation to the concept of live web cams, video streaming and professional counselling through the internet with any group or individual. Hence, the information relating specifically to farmers and internet counselling is scant.

The only substantial article in 2007 was an eight year study of Internet-based remote medical counselling. Internet-based medical counselling is a form of telemedicine that uses internet technology to inform or educate patients (Labiris et al, 2002). The funding for this study was provided by Greek based organization Intermedico Network located in Athens. This included the equipment and running costs of the network, hardware and web hosting and training of the necessary personnel in using the technology of internet relay chat and teleconferences. While the service was free to patients, the service cost was covered by donations from private health organizations. Patients could email into the service that would answer questions related to medical diagnoses and receive a response via email. The patients involved were from Australia, Northern America and the European Union.

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The real-time videoconferencing was also tried but was abandoned because of various technical problems and the difficulties of providing appropriate medical staff when required (Labiris, et al., 2002).

This study is similar to the 13 HEALTH telephone service that operates in Queensland Australia. Patients can telephone a medical doctor and receive information 24 hours a day every day. However there is a charge for this service. The current charges are \$30 for five minutes consultation and \$6 every minute following (Goldbaum, 2006).

Any other literature relating to the topic of interactive communication and information technology for people and their health, centres around providing information technology for using teleservices for the medical profession, including medical practitioners, specialists, cardiologists, radiologists and those working from a medical model.

Teleservices are primarily health information sites and are not interactive videoconferencing or web cam health sites. However, Medline Plus, a current website, is a good example of being able to access information on particular diseases, symptomatology and treatments. It includes interactive tutorials which enable access without leaving the responsibilities of the home or workplace. These interactive tutorials are health education programs that explain the causes and types of illnesses. They also review symptoms, diagnoses, treatment and prevention of illness (United States Department of Health and Human Services, 2007). An Australian example of a similar website, is the Virtual Medical Centre, however this is cancer based ("VirutalCancerCentre.com").

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The internet medical sites can be used for patient self-diagnoses, health education course purposes or purely for self-education information. Although this is not specifically designed for rural and remote people, those who do have access to the internet and are located in isolated areas can benefit. They can access the information inexpensively. It is not necessary to telephone for appointments or drive long distances to medical services and public libraries. If they are following up information on a recent diagnosis they may have been given by medical specialists or practitioners, their identity also remains anonymous.

The Australian Veterans' Affairs Counselling Services are members of the National Affairs Advisory Committee of the Veterans and Veterans' Affairs Families' Counselling Service National Veterans' Affairs Advisory Council (VAAC). In their 3rd minuted meeting of 2007 they agreed with the implementation of video conferencing infrastructure to provide counselling to rural and remote veterans (Department of Veterans Affairs, 2007).

That recommendation has now come to fruition with the service currently offering veterans and their families who live in Orange, Dubbo, Inverell and Glen Innes in NSW or the Wheat belt, Midwest and Pilbara regions in WA the new service as part of a pilot program offering free and confidential one-on-one counselling services via video conferencing with qualified Veteran and Veterans' Counselling Services staff (Australian Government Department of Veterans Affairs, 2009).

Video conferencing and web cam conferencing allow for real time counselling to take place as it would in a real life situation, where both social worker and client would be situated within the same room, except they are both geographic distances apart. Video Conferencing however, requires a bridge between the two television

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monitors for the conferencing to take effect, and trained staff to operate the bridge. Web cameras are attached to or built-in to computers and can be used by individuals with very little training needed, in the privacy of their own home or using laptops, which are mobile. This opens up opportunities for rural and remote Australian citizens to reduce their physical, social and emotional isolation and increase their well-being, which consequently has an impact on their physical health, by being able to view and converse with other people online, using various web cam applications.

However, in Australia there has been a long standing political debate in relation to how to service the country with internet services in an equitable way. The Australian Government on 7 April 2009 announced the establishment of the National Broadband Network, NBN Co Limited (NBN Co). The purpose of this company is to design, build and operate the wholesale-only National Broadband Network (NBN) fibre to the household services to over 93% of the population. However ‘ 4% of the rural population will need to use an updated mobile wireless service and 3% of remote Australians will require high speed satellite’ (Department of Broadband Communications and the Digital Economy, 2011). The NBN is the largest single communications building infrastructure since the intercolonial telegraph network (Department of Broadband Communications and the Digital Economy, 2011).

The Australian Government’s investment in infrastructures and service outlays for rural and remote areas has been massively unequal compared to that invested in metropolitan areas. An economic surplus has been enjoyed by the Howard Government in the past two decades as a result of the mining boom and our trade with China. These inequalities have impacted on essential services such as education, basic infrastructure, health and telecommunications.

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The inequality of telecommunications has particular impact on those in rural and remote areas. Where tyranny of distance is an undeniable issue in accessing goods and services, telecommunications have a vital role to play, and the quality, availability and affordability of these has many serious implications. Telecommunications are limited in rural and remote areas. Research in 2006 showed that 66% of those in metropolitan areas had internet access, with 46% of that being broadband, which is comparable to those in Inner Regional, Outer Regional, Remote and Very Remote areas, which were 42% for internet and 24% for broadband (Australian Communications and Media Authority, 2008). As public transport is non-existent in these communities, those who are limited by private transport resources or the ability to drive will remain isolated. Isolation impacts on the quality of communications, which affects quality of life, as well as business and commercial opportunity, and social capital.

Good communication is imperative for these. Good communication is dependent on how people connect and interact with each other, and the quality of that connection impacts on health. A crucial aspect of addressing the issue of lifestyle inequity is the affordability of accessing quality telecommunications. According to research conducted by the National Institute of Industry and Economic Research, November 2009, entitled Essential services in Urban and Regional Australia, in comparison to Metropolitan dwellers, rural citizens averaged an extra cost of two to ten times more to access necessary services such as education, aged care and health services. Information in the endnote added that the Government owes a responsibility to the people in remote and rural areas to improve services to a basic level of service delivery. A fundamental component is that infrastructure needs to be provided in rural, regional and remote Australia, to provide services, such as broadband, at a



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comparably affordable rate to that provided to those in urban areas (National Rural Health Alliance, 2010).

Current technological and political constraints and debates surround access to broadband for rural and remote Australians and are currently limited by the option to opt out of the universal service obligation for internet access.

## **5.1 Conclusion**

This literature review has explored the three key ingredients in the application of using web cameras via the internet in real time by social workers to Australian farmers for counselling. An explanation of the necessary qualifications to practise in the professional role of social worker in rural communities has been given, along with the challenges they face within these communities in providing social work services. Social workers use information communication technology with their clients to find information for their clients and themselves. They also use email in the same way, within and between the organizations within which they work, and in addition, they use information technology to service their appointments, perform word processing and other 'in house' tasks.

Farmers face enormous challenges as the stress of farming and its changing face within Australia can impact on their mental health and social well-being, which in turn impacts on the Australian economy in lost work hours; it also impacts personally on their families and their communities. The advent of the National Broadband Network can provide an equitable option for farmers to access social workers live for counselling to improve their mental health. This can be done using web cameras as an alternative to the current dominant paradigm of rural and remote

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service provision, thereby being cost effective for both farmer and social worker and the tax payer in general.

## **6 METHODOLOGY**

### **6.1 Introduction**

Social work has a strong tradition of empowering praxis –the mutual interplay of action and critical reflection that merits appreciative inquiry (Finn & Jacobson, 2003).

One of the major factors in determining a research project is to be able to articulate the epistemological framework of the project. Crotty (1998) suggests that this be done by answering two distinct questions. What methodologies and methods will be employed in the research that is being proposed and how is this choice justified by using the methodologies and methods that are chosen (Crotty, 1998) ? The purpose of the research plays the major role in determining methods of enquiry. To justify the choices made in response to methodologies and methods is to delve into the assumptions about the reality of the research. According to Crotty (1998), to delve into the assumptions by recognising and determining them assists in understanding the epistemological framework. The assumptions made in relation to this research are twofold:

1. If there is an improved understanding of why farmers suicide, then better focused intervention programs can be developed.
2. There is a need for accredited social workers with additional skills to use interactive technology to assist farmers by offering an appropriate counselling service as an intervention strategy to improve their social and emotional well-being and assist in preventing farmer suicide completions.

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It was in defining these assumptions that the theoretical perspective was also defined. Therefore it is not only methods and methodology, but also theoretical perspective and epistemology that need to be separated out to form the conceptual framework of this thesis. The most important of these has been the underlying philosophy of the researcher in being genuine and authentic to the inquiry from the social work theoretical perspective. The researcher's values and experience of growing up on a rice farm in Griffith New South Wales and experiencing the impact of agricultural changes to historical farming family business structures and rural communities, contribute to the personal and professional values which impact on choice of methodology. The ever present farmer suicide rate and limited professional social work services in rural and remote Australia is identified in the literature review.

The 'knowing' (Van Manen, 1990) of the problem existed through childhood to adulthood and beyond, as a practicing professional social worker working within rural communities throughout New South Wales and Queensland. The reasons farmers are suiciding at a higher than average rate (twice the national average), is a matter that has always taken the attention of the researcher. More importantly, access to counselling services to improve health and well-being was determined as a priority, because of tireless efforts when working in communities, to overcome the tyranny of distance to service clients in need and to build community capacity. These formed part of the experiences that guided the setting up of the pilot project. For example, it was not unusual to be employed in a community health centre and start the day at 7.30 a.m. with a client, travel 100kms at 8.30 to engage a client at 9.30am, travel another 200 kilometres and engage a client at 12.30pm, then at 1.30pm travel another 300 kilometres back to base to engage another client at 4.30pm. Client time

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was totalling 4 hours, with travel time totalling 6 hours with 600 kilometres being travelled by car on rural designated roads which are often in poor condition.

The identification of the social problem of farmer suicide is critical, as little research has been done to determine why this is so (Centre for Rural and Remote Mental Health, 2011). This is the reason that a major study is being funded by the Australian Research Council under the leadership of Professor Diego De Leo, of Griffith University with a timeframe from 2012-2014 to attempt to determine causes (Centre for Rural and Remote Mental Health, 2011). This master's research endeavours to alleviate the problem by offering a solution through intervention, in this case social work counselling through the internet to improve social and emotional well-being and help prevent suicide completions.

The choices that the researcher determined according to Crotty were:

Epistemology	Theoretical Perspective	Methodology	Methods
Social Constructionism	Social Work Critical Theory	Action Research	Visual Ethnographic data collection Questionnaire Demonstration Interview Thematic analysis

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The goal of social work is to strengthen people's ability to cope with the task and problems they face in life and to promote improvements in the environment to more adequately meet human needs (Macht & Quam, 1986, p.4). Social constructionism is one of the key concepts in sociology. Social constructionism is about people and how they relate to each other, how they create reality and how they interact in relationships and within their environment.

The phrase, *social construction*, typically refers to a tradition of scholarship that traces the origin of knowledge, meaning, or understanding to human relationships (Gergen & Gergen 2008, p.159).

Social constructionism is an assumption about how people make meaning (make sense) out of their lives and their encounters. It is in opposition to what is referred to as logical positivism and empiricism in traditional science. These are based on an objective reality, knowledge of which is only gained from sense data that can be directly experienced and verified between independent observers.

The assumption being that nature of the world can be revealed by observation and what exists is what we perceive to exist (Burr, 2003, p.2).

If the researcher were to adopt the positivist approach, the assumption would be that 'human experience of the world reflects an objective, independent reality and that this reality provides the foundation for human knowledge' (Weber, 2004, p. vi).

The author's epistemological stance is important in establishing both a theoretical framework and methodology to assist in the development of social constructionist change in the health arena; in understanding how people make sense of their world and to challenge assumptions.

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(Kersten & Ison, 1994 as cited in Roberts,1997).

‘discuss the advantage they gained from identifying and understanding their epistemology because of its influence on research design and outcomes in their research in agricultural rangelands. Hence their research is positioned in the context of a constructivist epistemology (p.3).’

This master’s research is placed in the context of social constructionism and uses the social construction of language to decipher the meaning of farmers’ opinions and feelings in exploring their attitudes towards the possibility of online counselling in the research design; this also includes emotions, feelings and values. The research also uses this social construction of colour and socially constructed symbols to affect a positive response through web camera experiences, advertising material in recruitment, trained radio voice in radio interviews, in expressed language of the issues of farmer suicide in verbal communications. These were all encountered throughout the research process. It uses critical theory as a theoretical framework for the purpose of forming self-reflective knowledge, involving both understanding and a theoretical explanation to reduce entrapment in systems of domination or dependence, obeying the emancipatory interest in expanding the scope of autonomy and reducing the scope of domination for the farmers being studied and for the researcher doing the research. It is then supported by emancipatory action research which triangulates social constructionism and critical theory within it through the qualitative methods that were determined and then used. For within this research there was the issue of social justice; in an attempt to offer a solution to the inequity of health and well-being service provision to farmers, by offering counselling within their own home and business.

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### 6.1.1 Personal Reflection

I was directing my own learning through this research, reflecting and observing organizational structure and politics, learning computer application processes through on- the-job practice, and designing the methods through collaboration with the supervisory team. In addition I was developing group process through the research team and co-ordinating necessary equipment and services through my own education institution. To my surprise on only one occasion which was during the writing up phase, did any of the staff I approached for assistance or advice decline resources or time in kind. I was directing my own learning through these processes of communication which collectively were assisting an altruistic and authentic intent.

There were also a series of relationships that were constantly being constructed and reconstructed through language, action and symbols. These were: the relationship of the researcher within the research team, the researcher within the supervisory team, the researcher immersed within the community being studied, the researcher relationship with staff and colleagues within the tertiary institution, the researcher and staff within the research centre, the researcher practising through the relationship with other professional social workers through the professional code of ethics and the researcher within the broader group of scholars (Reason & Bradbury, 2001, p. xxxiv). The underlying question being, is there a social construct(s) that plays a role in farmer suicide?

The literature review discusses some assumptions underpinning this research 'however social constructionism asks that we be suspicious about all assumptions in research' (Burr, 2003, p. 2). Social constructionism gives the opportunity to look at the reality of the acts and symbols in society in relation to this research. Rogers et al (2005) contend that the turn of the century was a moment in history where the



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'linguistic turn' (associated with Wittgenstein) marks where we could begin to see how our reality is interactively constructed through language, how things are defined in society and how our conceptual system is created through language. Language guides and limits the observational process. The stability of the language system produces the stability of a shared reality (Rogers, Malancharuvil -Berkes, Mosley Hui, & O'Garro, 2005).

This is what makes critical scholarship different from interpretative scholarship in that it interprets the acts and symbols for society to understand the ways in which various social groups are oppressed (Seiler date, p.1).

Social constructions matter because they are collectively held beliefs. Something has successfully been socially constructed with the majority of people agreeing on its meaning (Gergen, 1999). Once a social construct is adopted it can be difficult to change. In socially constructing people we create categories and identify ideas about what those categories are like. At the same time, by 'critically analysing the symbols of society, oppression of various social groups can be understood' (Seiler date, p. 1). There is the social construct that farmers are predominantly white middle class men. However, Muenstermann (2009, p.2) cites Alston, who has shown that in Australia, women:

currently make up 40 % of Australian farm business partners, they earn 48 % of the farm income through their on- and off-farm work, 50 % of farm families rely upon off-farm income, and 80 % of that off-farm work is performed by women (Alston, 2003, p.477; 2004a p.40).

While many would argue that farmers are not an oppressed group, environmental and social and political factors all impact on social and emotional well-being. The Oxford

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Dictionary of Philosophy defines oppression: ‘Oppression may be deliberate, or an unintended outcome of social arrangements; it may be recognized for what it is, or may go unremarked, even by those oppressed’ (Oxford, 1994 ). According to Moreau 1990 All forms of oppression are based on an identical ethos of domination and subordination. All forms of oppression equate value, self-esteem and self-worth with superiority, privilege and domination over others rather than equality with them (p. 64). However, oppression can also be defined as an act or instance of oppressing, the state of being oppressed, and the feeling of being heavily burdened, mentally or physically, by troubles, adverse conditions and anxiety (Moreau, 1990).

The literature review discusses the issues that are directly impacting on the social and emotional well-being for farmers, within Australia. These issues clearly indicate that they are experiencing oppression through lack of service provision and resources, particularly health service provision (Turpin, Bartlett, Kavanagh, & Gallois, 2007), disruption to their social, economic and environmental health, impacting on their mental health through the influence of climate change and extreme weather events (Fritze, 2008), reduced personal autonomy, negative self-image, pressure, stress, changes in status, uncertainty and social isolation (Patel, 1999; Shields & Price, 2001; Wilkinson & Marmot, 2003). There is also constant pressure through the lack of a voice in legislative changes and consequential policy that directly affect them, for example, the Murray Darling Basin Plan and the Native Vegetation Act (Lloyd 2010; The Area News, 2011).

One way of achieving empowerment for oppressed groups (in the context of this research) was to involve people for whom the research is aimed in the process as subjects. This generates participatory citizenship and creates experiential learning -

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that is, making meaning from direct experience. The results from farmers' experiential learning to the research question, thereby forms the basis for new knowledge and social change. There is an empowering process that enables them to be part of the decision making that could directly affect their lives, as opposed to the top down approach.

Social constructions do change all the time; groups may actively try to renegotiate meaning. Social movements can be understood in part, as collective efforts to change socially constructed ideas about the world. An example of this has been social work critical theory through the women's liberation movement, that sought to change many aspects of how women are viewed and how they engage in society (Alston & Bowles, 2003).

If the social constructions of farmers in Australia are related to opportunities and constraints in our society, then those social constructions are extremely powerful. 'Critical social scientists believe it is necessary to understand the lived experience of real people in context' (Seiler, 2011 p.1) and hence their participation in the research was essential. Critical theorists are not just trying to describe a situation from an advantageous position or set of values (for example, the need for greater autonomy or democracy in a particular setting), but they are also trying to change that situation. This fits with the social work practice standards, the social work mental health practice standards and the AASW code of ethics (Australian Association of Social Workers, 2003, 2008; 2010a).

How do farmers understand health, how can we assist them to improve their health? What sense people make out of their health, their illness, can be determined by social research in such a way as to collect data to try to bring those results and meaning to

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the people it directly affects through health policy. Potentially, changes in health policy have the ability, with this ‘new’ knowledge through research, to enable government to interact better with the community within which they serve, and to better provide health equity in line with the principles and values of the World Health Organisation’s social determinants of health, particularly for those in rural and regional areas (World Health Organisation, 2011).

Practice can be thought of as activities which people perform in order to produce an intended result (Polkinghorne, 2004). Professional development through introspection and reflection through practice can be powerful. Qualitative research involves the use and study of a variety of empirical materials - case study, personal experience and introspection, life story, and interview, observational, historical, interactional and visual texts and typically involves gathering empirical materials using some form of observation or interviewing method. Given that there is great variation in approaches for doing qualitative research, the following two features emerge across approaches:

- a) ‘interpretive - qualitative research focuses on understanding the way people interpret and make sense of their experiences and the world in which they live
- b) naturalistic - qualitative research studies social phenomena in their natural settings’ (Cohen & Crabtree, 2006).

When beginning this research, the researcher had some preconceived ideas of the coming experiences. However, flexibility is important and observations allow for the patterns or themes to emerge from experience and for flexibility in the approach (Alston & Bowles, 2003, p.9). ‘From careful observations, immersion in the world of the ‘researched’ in-depth interviews, and a range of other techniques, qualitative

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researchers build their theories from the patterns they observe in their data' (Alston & Bowles, 2003, p.9). The skills and character of the researcher conducting the study form an overriding feature of qualitative research with the research, design and development of data creation, interpretation and analysis a result of the researcher's or group of researchers' judgements and expertise (Polkinghorne, 2006, p.75). This research is best suited to qualitative methods because the researcher wanted to look at the micro level to see whether, if a service was available to farmers via the internet for professional counselling by social workers, they would use it. In addition, the researcher wished to determine what restrictions they may have in accessing a professional counselling service through current service provision. In developing the methods it was important in following the discourse detailed, that the farmers experience talking live to a person through the internet, to ascertain if they would do the same with a professional social worker for counselling.

In the late 1940s, social psychologist Kurt Lewin developed a three-step model for implementing change, based on the concept of force field analysis. Force field analysis addresses the driving and resisting forces in a change situation. Driving forces must outweigh resisting forces in a situation if change is to occur (Lewin, 1947). With the assumptions formulating the epistemology, the values of the researcher formulating the theoretical perspective, what is required in the design is to determine the research questions and develop the design to address these questions. This will determine the research design, data collection methods used, data analysis and interpretation.

The underlying goal of this research was to explore the depth of feeling and beliefs the farmers held in relation to using internet technology to receive live counselling

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from qualified social workers and to learn how these feelings affected their behaviour in the potential use of live on-line counselling services if they were made available. The data that was collected to determine the question was related to the high rate of farmer suicides and lifestyle, social, economic and political factors that are creating oppression among this occupational group.

The data that was collected from this goal was developed through thematic analysis and is discussed in the Results chapter of the thesis.

This master's research incorporated primarily an action research methodology designed to collect qualitative information by way of three instruments in the development of the two objectives.

## **6.2 Research Questions**

1. Will farmers accept a professional counselling service with social workers via communication information technology?

What barriers may exist for farmers in accessing counselling services?

## **7 RESEARCH DESIGN**

The concept of ‘the public good’ is based on the philosophy of the Franklin School (Boog , 2003). By analysing the human experience of the oppressed groups through research, social work researchers can determine what needs to change and advocate for that change through policy, governments, and/or research funding for further research endeavours of the issue, determined through addressing issues of inequity.

The function of action research therefore in this thesis is to combine the research function with social work critical theory and skill in such qualities as objective and reflective thinking, skill in action processes (advertising, recruitment, instrument development,) and ability to work harmoniously and communicatively with others and improve the development of professional social work spirit with the overall end for the ‘public good’.

### **7.1 Scope of Action Research**

Action research is focused on immediate application, not on the development of a theory, not upon general application. It has placed its emphasis on a problem in the here and now in a local setting. The emphasis is not on obtaining generalizable scientific knowledge about social problems, but on obtaining knowledge concerning a specific local problem. According to Gunnell (2011):

Action research methodology involves interaction between the researcher and his or her subjects, as well as his or her data. Action research is more qualitative in nature and is outcome based in that it aims to improve the methods used in education, social science, community and other settings...it calls for insight, reflection, and

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personal involvement with the topic being explored. Action research is conducted in real world settings by the people directly involved with the problem or situation being investigated (Gunnell, 2011, p.1).

Lewin's framework was adapted and used as a tool to support the research, and therefore, to assist the researcher to make meaning of subsequent findings. It was also used as a starting point for reflection about the proposed research and its context prior to further development. The adapted conceptual framework of Kurt Lewin assisted the researcher to develop an awareness and understanding of the steps being conducted and to communicate this first of all through the experience and development of the self-funded pilot programme and then through this research masters. Lewin's approach involves a spiral of steps (see Figure 4-1), 'each of which is composed of a circle of planning, action and fact-finding about the result of the action' (Smith, 2001, p. 1). Kemmis describes these repeated cyclical steps in action research as plan, act, observe, reflect' (Kemmins 1981, p. 11). This continuity forms an upward logarithmic spiral as below.

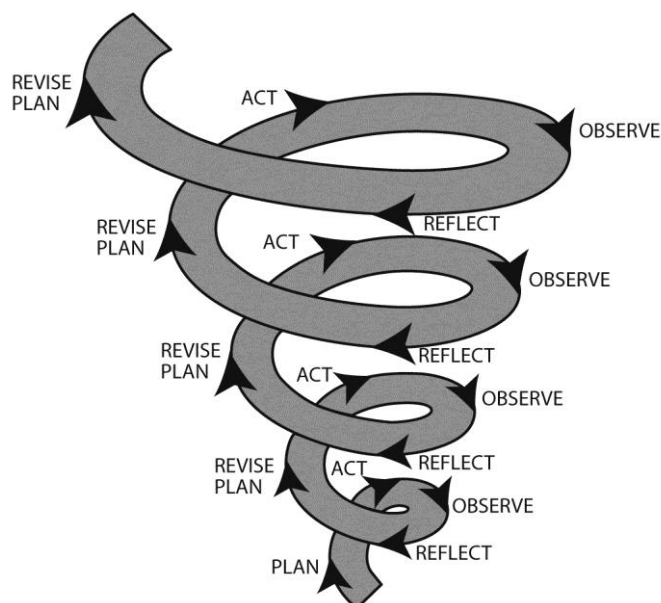


Figure 7-1 The Logarithmic Spiral of Action Research (Adapted from Kemmis, 1981).



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Action research complements the practice of social work as it links directly back to social work practice through the process of critical reflection within each action research step. The action research framework was also chosen, as one of the standards of mental health and general social work is critical reflection.

The commitment to, and capacity for, critical reflection on practice is a basis for effective social work practice in mental health. Practice brings together the personal qualities of the worker, with the knowledge, skills and values of the profession (AASW 2008a Mental Health Practice Standard 5.1, p.28).

Kurt Lewin's eight principles of Action Research according to Bargal (2006) are described in the following. The researcher's response to each of these eight principles and its adaptation in this research is also described.

*Step 1.* 'Action Research combines a systemic study, sometimes experimental, of a social problem as well as the endeavours to solve it'..... 'In contrast to using the positivist scientific approach of researching a problem to understand it, Action Researchers study a problem because they know it exists and they also offer solutions for intervention for its solution' (Bargal, 2006 p.381).

The researcher's experience of growing up on a rice farm in Griffith New South Wales and experiencing the impact of agriculture on historical farming family business contributes to the personal and professional values which impact on choice of methodology. The ever present farmer suicide rate and limited professional social work services in rural and remote Australia is identified in the literature review. The 'knowing' of the problem existed through childhood through to adulthood and beyond as a practising professional social worker working within rural communities throughout New South Wales and Queensland.

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In addition, the researcher is a non-practising social worker afflicted with a chronic illness, looking at finding other sources of income relevant to the past professional and educational experience. In fact there are two social problems, one being the employment of social workers with disabilities, and the other the farmers who have become stressed.

*Step 2* ‘Action research includes a spiral process of data collection to determine goals, action to implement goals, and assessment of the results of the intervention’ (Bargal, 2006 p.381).

The action research that was undertaken had an endless feel to the process with adaptation of the model being necessary to fulfil the original data collection goals. Implementation of the goals through the random samples could not be achieved without being skilled in adaptable processes in rural communities and knowing how to engage within those communities. The assessment of the results is detailed in the discussion chapter.

*Step 3.* ‘Action Research demands feedback regarding the results of the intervention to all parties involved in the research’ (Bargal, 2006, p.381).

In response to the ethics approval to undertake the research the subjects were not re-contacted and given feedback, although at the completion of this research, they will be sent information in relation to the results of the research and proposed future intervention. It was at this juncture that it was necessary to adapt Lewin’s framework due to the original ethics application approval. Therefore this study was dominated by the methodology of the researcher and supervisors; the participants were not involved with the research design or data analysis. This does not diminish their input through the methods nor does it affect the results, but an adaptation was necessary.

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However, it needs to be understood that this research did not involve a full participatory methodology.

**Step 4** ‘Action Research implies continuous co-operation between researchers and practitioners’ (Bargal, 2006, p.381).

There was no doubt that the recruitment and participation of the subjects showed the underlying principle of co-operation, as did the research team. Participants were interested in the research and what affects them as farmers and the impact that has on their lives. They appeared interested in, and understood the rationale for, the research into intervention of web cam counselling.

**Step 5** ‘The small group plays a central role for decision making and for achieving change in people’ (Bargal, 2006, p.382).

While the research was not undertaken in a small group, the results of the research represent the collective response of a small group of six. These results may be effective in creating positive change.

**Step 6** ‘Action research takes into account issues of values, objectives and power needs of the parties involved’ (Bargal, 2006, p.382).

Communication within the research project was dealt with openly with all parties involved. In the end it was necessary to shift faculty supervisory arrangements to ensure the timely completion of the writing up of the thesis. The decision to take this route was decided by the researcher unilaterally. This decision does directly conflict with this sixth principle; however it was necessary to adapt this principle to ensure completion.

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*Step 7* ‘Action research serves to create knowledge, to formulate principles of intervention and also to develop instruments for intervention and evaluation’ (Bargal, 2006, p.382).

The data collected in this research masters is available in the results. The instruments developed are described in the design chapter, but they consisted of a pre-demonstration questionnaire, an interactive live to air demonstration and a post audio interview questionnaire. The knowledge gained through the process of the action research, experiential learning (participants speaking live to a person over the internet), critical reflection and critical incidence within the action research cycles, could be used to improve the well-being of farmers. Their approach to how they manage stress, due to this research experience, may have encouraged them to seek health information via the internet, beyond the period of this research.

*Step 8* ‘Within the framework of action research there is much emphasis on recruitment, training, development, and support of the change agents (the trainers)’ (Bargal, 2006, p.382).

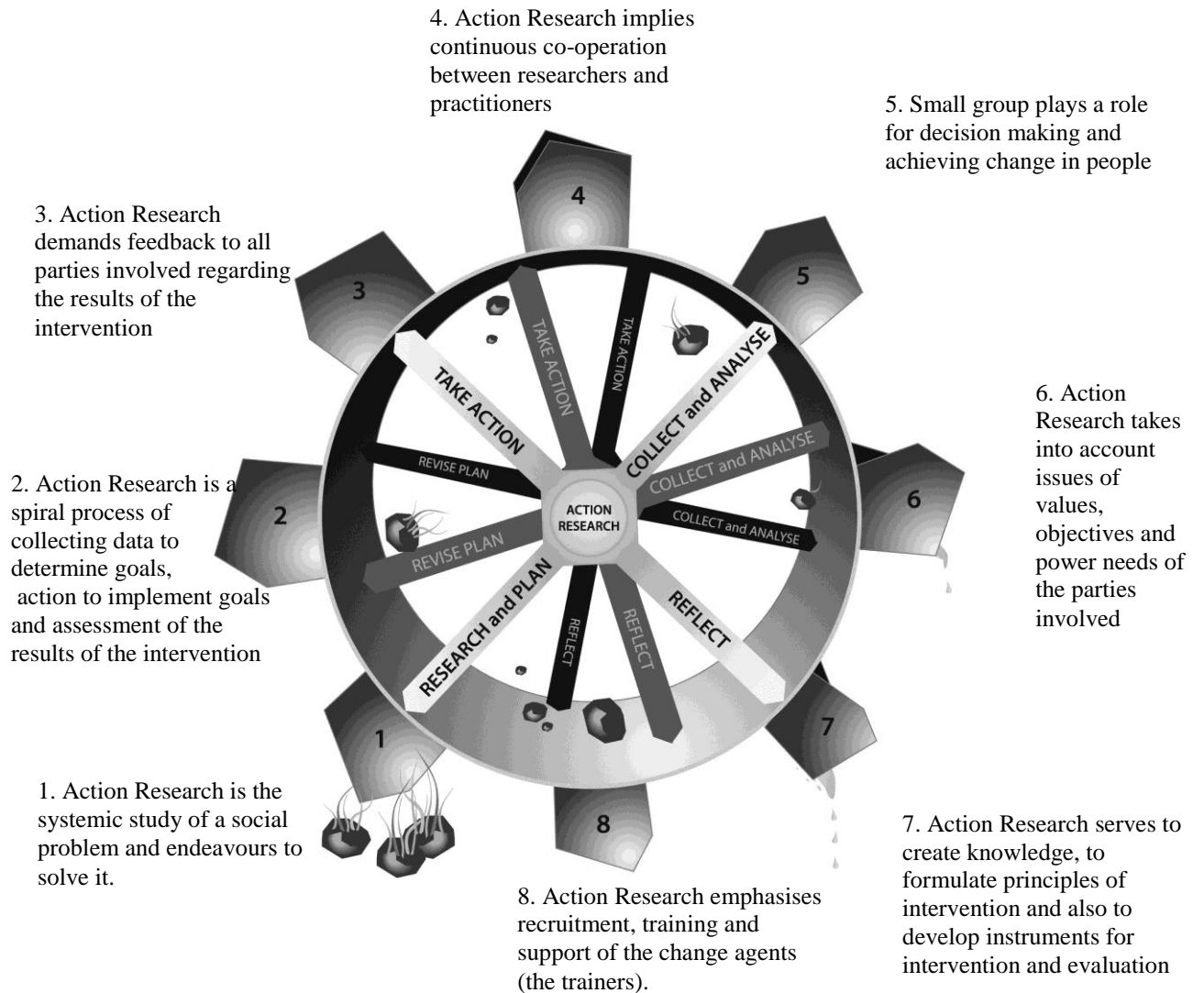
As a social worker the researcher’s goal is to create social change in human systems. Whilst the researcher created the concept (back in 1998), designed, conducted and evaluated the research, it is important to note that the history of the researcher gave rise to the knowledge base of the subjects with empathy and compassion, and showed a deep understanding of the participants and their lifestyle within the intervention.

Research is an important component of social work practice, both in the dimension of practice standards for social workers and in practice standards for mental health social workers (Australian Association of Social Workers, 2003, 2008).

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The Dethridge Wheel in diagram 2, designed by the researcher, symbolises the flow of Kurt Lewin's action research according to Bargal. The Dethridge Wheel consists of a drum on an axle, with eight v-shaped vanes to the outside, representing eight main principles that characterize Lewin's action research as identified in Bargal (2006, pp. 381-382). Without the eight principles of action research the wheel cannot maintain its flow. It is symbolic, as all living things on earth require water to develop and grow and maintain good health. The methodological framework symbol is three dimensional, portraying the holistic approach to health. That is the healing and maintenance of health of the whole person in their environment upon the earth, not simply by the absence of physical disease. Within the three axes of the wheel is the action research cycles of planning, actioning, analysing and reflecting, which continue ad infinitum to create the logarithmic spiral. Within and outside of the wheel are the critical incidences that form part of the ebb and flow processes along the way. These can appear at any time during the action research and can be positive or negative. They are dealt with through the action research cycles and once dealt with are then absorbed to form part of the continuing flow process of the logarithmic spiral. In each of Kimmins steps, namely research and plan or revise plan, take action, collect and analyse and reflect, critical reflection provided a basis for further action to progressively problem solve as demonstrated in this wheel.

**The Dethridge Wheel of Action Research**



**Figure 7-2 The Bromley Dethridge Wheel of Action Research**

The Dethridge Wheel was invented by John Dethridge in Australia in 1910. Dethridge was then commissioner of the Victorian State Rivers and Water Supply Commission. The revolving wheel did measure the flow of water from the irrigation supply channels into the farm channels. This provided the basis upon which irrigation farmers were charged for water. ‘John Dethridge refused to patent his invention, instead offering it for the benefit of humankind.’ (Fitzgerald, 2010, page 6) The wheel was replaced by sophisticated technological methods of water measurement for water charging currently used in Australia. This model is a reflection of the researcher’s rural rice farming background.

## Research Design

Kurt Lewin's action research framework fits with the guiding principles and ethics of social work. It differs from other forms of research, as it has the empowerment of subjects through their participation in the research process at its core, which is why this methodology was most appropriate for this research masters.

Social work has a strong tradition of empowering praxis –the mutual interplay of action and critical reflection that merits appreciative inquiry (Finn & Jacobson, 2003).

### 7.1.1 **Personal Reflection**

I found that the research was much harder than anticipated, due to the critical incidents that occurred using action research methodology, some of which will remain unexplained in this thesis, and others will be explained in detail. In addition, I was working without a data base in a community that was not known to me, nor I to them. This disconnection from my own professional group, rural communities within which I am known, community neighbourhoods and my family, I found disconcerting. For the first time in my life I felt a stranger in my own home and in my own country. I experienced the impact of bigotry in my neighbourhood as a female home owner who lived alone. I was psychologically affected during the process entirety of this thesis through humiliation, ridicule, threats, theft, and damage to my property and violations of my human rights as an Australian born citizen of pioneering and military heritage with Indigenous connections, raised in a multicultural society. At times my life was in danger. Hate crime is illegal in Australia. I felt the impact of social constructionism through the dominant discourse of male language. This was particularly evident when seeking support from the Queensland police service, local and regional government and State Labor party representatives. These experiences made it difficult at times to focus. Toowoomba is

## Research Design

historically known for turning a blind eye to crimes against women. None the less, actioning personal responses to these events and reflecting on them, gave rise to self-reliance and self-resilience. I found taking responsibility to protect myself and my property, in addition to field research, which involved taking time to set up technical equipment and liaise and engage within the university and rural community and coordinate a research team, to be all consuming. I was constantly modelling my own experiential learning processes, while reflecting on group processes within both the research and supervisory team. I found this more of a hindrance than more conventional research, where it is easier to use a data base through employment in a workplace, for example a hospital or university or through known community familial networks. I was constantly in the face of uncertainty, dealing continually with the unknown.

The supervisory team and I were all stationed in the same location. I found this impacted on mapping the organizational relationship dynamics and also impacted on how I felt about working within an organization where there was no opportunity for employment or further research education development, membership or scholarship for me, despite my enthusiasm, skill, experience and compassion. For these reasons I found a conventional format difficult to maintain and the writing up at times did not reflect the reality of what I had experienced. In effect I found my research did everything backwards, including sourcing the literature. It was not until I started to read about action research that these issues appeared normal for action research practitioners. Dick (1993) supports my action research statement claims.

I was directing my own learning through this research, reflecting and observing organizational structure and politics, learning computer application processes



## Research Design

through on- the -job practice, and designing the methods through collaboration with the supervisory team. In addition I was developing group process through the research team, and co-ordinating necessary equipment and services through my own education institution to be used in a rural shire. Further, I was connecting with professionals who were willing to assist and who were shocked at the Australian farmer suicide rate. To my surprise, on only one occasion, which was during the writing up phase, did any of the USQ staff I approached for assistance or advice decline necessary resources or time and skill in kind. I was directing my own learning through these processes of communication and networking which collectively were assisting an altruistic and authentic intent.

## **8 RESEARCH METHODS, DATA COLLECTION AND ANALYSIS**

### **8.1 Introduction**

This research study was narrowed from the broad perspective of a previous pilot study (see background introduction). This current study focused on live on-line counselling of rural and remote Australians through web cameras, to farmers and was undertaken in Crows Nest Shire, a rural shire in Queensland. When the study commenced, Crows Nest Shire was a local government area (shire) incorporating the towns of Hampton, Crows Nest, Highfields, Cabarlah, Hampton, Peachy and Geeham. The Queensland State government in 2008 mandated the amalgamation of eight shires in and around Toowoomba to form Toowoomba Regional Council (TRC). Crows Nest Shire was one of those eight shires; however for the purposes of this research the original shire boundaries were used.

The underlying goal of this research was to explore the depth of feeling and beliefs the farmers held in relation to using internet technology to receive live counselling from qualified social workers and to learn how these feelings affected their behaviour in the potential use of live on-line counselling services if they were made available.

This master's research incorporated primarily a qualitative research method designed to collect information by way of several instruments in the development of the two objectives.

1. Will farmers accept a professional counselling service via communication information technology?

2. What barriers may exist for farmers in accessing counselling services?

The rationale behind the research was originally to have both qualitative and quantitative data from which to draw research conclusions. The original plan was to send a letter to all the farmers inviting them to participate. The study was to give farmers within the Crows Nest Shire Queensland the opportunity to meet as a group and to participate and discuss the potential use of video web camming and counselling by social workers. However, for varying reasons the original rationale could not be followed through and the research ended up being primarily qualitative with six participants.

The participants completed a pre demonstration questionnaire, participated in a live to air conversation on any general topic of their choice, with a qualified professional, through a web camera attached to a laptop, and then participated in a short post demonstration live recorded interview about their experience. The data were collated using a manual colour coding system, themes were identified and then analysed. The end results showed that participants in this study, *will* access live professional internet counselling services by social workers using a web camera in their own home, if the service was made available.

**8.2 The action stages of data collection for the research included:**

1. Ethical Considerations
2. Recruitment of Experts
3. Identification and Hiring of Equipment
4. Identification and Collation of Educational Health Material for Farmers
5. Choice of Venue
6. Recruitment of Participants

## Research Methods, Data Collection and Analysis

7. Development of Instruments
8. Pre-Demonstration Questionnaire
9. Demonstration and Transmission
10. Post-Demonstration Interviews
11. Data collection

### **8.3 Ethical Considerations**

The mandatory requirement for research approval was sought from the University of Southern Queensland's Ethics Committee, for the ethical clearance of investigative research involving psychological and sociological research. This involved the development and endorsement of the Plain Language Statement, which formed the personal invitation to farmers with attached consent forms, to assure confidentiality and anonymity in accordance with University of Southern Queensland (USQ) research policy, along with other academic ethical adherences. See Plain Language Statement and ethical clearance Appendix C.

All the farmers who participated in this study did so on a voluntary basis, and were recruited either through the generation of publicity to attend the evening at the Crows Nest CWA Hall, or through direct soliciting by the researcher directly to the farmers at the Annual Crows Nest Show. By means of an explanation of the consent forms provided, all participants were informed of the assurance of confidentiality and the opportunity to withdraw at any time. The consent forms were then compulsorily signed by the farmers prior to commencement of their participation in the study. Respondents' identities contained within these forms are required and will be kept in a locked filing cabinet for a period of five years.

## Research Methods, Data Collection and Analysis

Questionnaires were not personally identifiable. All data collected will be destroyed at the conclusion of the study with the exception of the results and secure data files that are password protected, which will be stored securely in accordance with the ethical principles for research involving human subjects. Storage will remain the responsibility of the researcher who is a member of the Australian Association of Social Workers (AASW) and is bound by the AASW Code of Ethics.

### **8.4 Recruitment of Personnel**

#### **8.4.1 IT Experts**

Two I.C.T staff from the University of Southern Queensland (USQ) Toowoomba Campus were identified, and asked to assist in the wireless transmission between USQ and Crows Nest, with the participants, researcher and demonstrator. (These people and their roles are detailed in the acknowledgements).

#### **8.4.2 Demonstrator**

The researcher identified a colleague with a broad knowledge base and life experience, with professional counselling qualifications, to assist in the research as a demonstrator. Her role was to communicate effectively with the farmers by discussing topics of interest chosen by them through the web camera during transmission at the USQ site. (Also detailed in the acknowledgements) While she was not a demonstrator in the true sense of the meaning of research, for the purposes of ease of reading of this thesis she will be identified as such.

#### **8.4.3 Caterer**

A locally known and published chef, Sue Belfitt, was identified and recruited to supply healthy food as a draw card to attract the farmers to the research being conducted at the determined venues.

## Research Methods, Data Collection and Analysis

### 8.4.4 **Equipment used**

Equipment - a wireless transmission booster and a portable web camera were borrowed from USQ Division of ICT Services to support an additional borrowed laptop from Student Services department. This complemented the laptop (with inbuilt web camera) that was purchased by the researcher for the conduct of the live transmissions between Crows Nest and USQ.

### 8.4.5 **Identification and Collation of Educational Mental Health for Farmers**

It was important to determine additional incentives to participate in the research. Determining a draw card other than food to entice farmers to participate in the research at the Crows Nest Show was an important factor. The researcher, being a social worker, utilised the opportunity to distribute education and prevention material directly relating to mental health to potential participants and/or their partners, families and/or friends. These items also assisted to start discussions. Show bags were designed with material which was sourced from '*beyondblue*'. *Beyondblue* is a national, independent; not-for-profit organization working to address issues associated with depression, anxiety and related substance misuse disorders in Australia (beyondblue 2009).

This included information fact sheets on issues specifically relating to rural men and depression. Twenty five relevant items were made available in each bag, which also included a resource book for good mental health 'Taking Care of Yourself and Your Family' by John Ashfield (2007). Fifty of these were freely given to interested parties who attended the stall on the day. To protect the privacy of people receiving the relevant mental health information it was disguised in corporate designed USQ recyclable black and yellow shopping bags.

## **8.5 Choice of Venue**

In the researcher's experience farmers are generally difficult to engage in research, as they are geographically scattered and are likely to be 'time poor'. The researcher had to be accommodating to these characteristics, as farmer participation required them to travel to a local Crows Nest venue and be generous with their time. It was important to design the research activity at a known suitable venue within the Crows Nest shire that was comfortable, politically neutral and easily accessible to minimise travel time and costs. For these reasons the Crows Nest Country Women's Association Hall located in the Crows Nest CBD was initially chosen. The Crows Nest Agricultural Show Pavilion, one kilometre from the Crows Nest CBD, was chosen as the second venue, as the research evening at the Crows Nest Country Women's Association (CWA) Hall for various reasons, recruited only one participant.

## **8.6 Participants**

### **8.6.1 Sampling procedure**

The sampling process originally consisted of snowballing via business cards but this proved difficult because of budget restraints in the printing of the business cards (see appendix D) despite Vice Chancellor approval. In addition, farmers were reluctant to identify other farmers to be involved in the research. The process then had to be changed to convenience where it was possible to locate farmers who were willing to be included after farmer meetings were held, to openly discuss the research issues in this study. The sample of farmers identified were those who owned property in the Crows Nest Shire and received their primary income from it. Consequently, hobby farmers or investors who receive dividends from farming enterprises within the shire were excluded. This was done simply by asking them during the recruitment process,

## Research Methods, Data Collection and Analysis

if farming was their primary source of income. There were no criteria in relation to size of farm or what was produced on the farm.

In order to encourage recruitment, the researcher designed the combined total time of the research, which included reading the plain language statement, signing the consent form, completing the questionnaire, participating in the web cam experience and answering the post interview questions, to be less than an hour. Post interview the participants would, in a casual way, determine the length of time for the sharing of the specially catered finger food.

### **8.7 Recruitment Methods**

For reasons of cost, practicality and availability of services, the final methods applied were restricted to media releases and supporting publicity. However, in March 2009 the Queensland state elections were being held and it was impossible to secure any free community advertising space within the regional or state newspapers.



## Research Methods, Data Collection and Analysis

### 8.7.1 Media Releases

Researching, developing, designing and writing appropriate media and advertising material was completed predominantly by the researcher. This was then distributed or released through the following outlets as outlined in the Table 2 below:

#### Media Releases

Type of Medium	Specific Media Outlets
Local Media	<ul style="list-style-type: none"><li>• Radio 4GR</li><li>• Crows Nest Times</li><li>• University of Southern Queensland Website</li></ul>
Farmer Networks	<ul style="list-style-type: none"><li>• Crows Nest Agricultural Society</li><li>• Country Women's Association</li><li>• Crows Nest TomNet (older men's network)</li></ul>
Local Shire Business Networks	<ul style="list-style-type: none"><li>• Local Hotels (Grand Ol' Crow, Farmer's Arms)</li><li>• Posters on Crows Nest Shire business windows</li><li>• Crows Nest Shire Post Offices</li></ul>
Government and non-government departments	<ul style="list-style-type: none"><li>• Ag Force</li><li>• Department of Primary Industries</li><li>• Toowoomba Regional Council</li><li>• Hampton Information Centre</li><li>• Crows Nest Community Health Centre</li><li>• Blue Care</li><li>• TomNet (Crows Net older men's group)</li></ul>
School Newsletters	<ul style="list-style-type: none"><li>• Flyers through the Crows Nest School News</li></ul>

Table 8-1 Sources of Media Releases (see Appendix E Media releases)

### 8.7.2 Public speaking

The researcher spoke publically at a local men's group within the shire, (The Crows Nest Men's Network) to encourage farmer participation in the research.

## **8.8 Development of Instruments**

The development of instruments included the pre-demonstration questionnaire, demonstration and transmission and post demonstration questions for the interviews.

### **8.8.1 Pre- Demonstration Questionnaire**

Prior to designing the questionnaire, the researcher searched the literature for questionnaires that related to occupational groups and their experience and/or use of live web cam internet counselling with social workers or other counselling professionals. It was hoped that if these were available, they may be able to be adapted and used for the Crows Nest farmer sample. Due to their non-existence, it was necessary to develop a questionnaire, which identified the essential content to be covered by all of the elements for the research. It was based on the researcher's previous rural work and life experience (including the previous pilot), direction and guidance from experienced academic supervisors and USQ IT staff. The essential elements for the questionnaire included demographics of age, sex, size of farm, type of farm and produce grown. Also included were current internet access and usage, knowledge and usefulness of counselling; familiarity with internet and its usage for live broadcasting of counselling to farmers through web cameras, knowledge of social workers and their training. In addition, the role delineations between social workers, psychologists, psychiatrists, nurses, mental health nurses and mental health social workers, including their availability and costs to farmers, were clarified.

The questionnaire had to take into account the time constraints for farmers in being involved in research off farm, which included their participation time and also their travel time (Appendix F).

## Research Methods, Data Collection and Analysis

The questionnaire was piloted with a small group of organic market gardeners in Highfields Toowoomba to determine the user friendliness of the invitation (plain language statement), clarity of the questions, time required to complete the questionnaire and clarity of instructions. Due to limited finances restricting Crows Nest farmers for this, market gardeners were chosen as the next best group closest to farmers to pilot the questionnaire.

The completeness of response sets and ways in which data collection techniques could be successfully used and recorded were identified by the researcher and supervisors; this information was then piloted to various staff within the Centre for Rural and Remote Area Health and appropriate constructive feedback was actioned.

From these pilots, the questions were re-arranged and grouped together to include general items first such as sex, age, size of farm, type of produce grown, then leading to more specific questions regarding counselling and finally usefulness of counselling. Further questions led into computer usage, broadband availability and connections to the very personal and key question whether they (as farmers) would access live counselling from social workers through the internet using web cameras.

Feedback from the piloted questionnaire indicated that intricate questions relating specifically to social workers (for example, who and what a social worker is, where they can be accessed and the differences in their professional training compared to “other” professionals), had to be discarded. The research investigation into this area increased, not only the number of questions to be used in the questionnaire, but also the response sets, increasing the time necessary for the data collation and completion of the masters research. It was determined that to answer the research statement, it was not necessary that either the researcher and/or demonstrator be qualified social

## Research Methods, Data Collection and Analysis

workers or that any other questions relating to social workers were necessary, other than the essential one that remained in the questionnaire. See Questionnaire Appendix F

This questionnaire was distributed to participant's pre-demonstration, to determine their pre-demonstration use, knowledge and experience of computers and internet services prior to their live experience of the demonstration of the wireless transmission and the conversation from the Crows Nest venue with the demonstrator stationed at USQ.

A post-demonstration questionnaire was designed to be used after the demonstration (see Appendix G).

### 8.8.2 **Demonstration and transmission**

A field demonstration formed the mid-section of the research.

For the demonstration the research demonstrator stationed at USQ communicated with the researcher and participants via a live wireless transmission through web cameras to discuss topics of interest to farmers and engage their participation in the experience of live personal broadcasting from one of the determined Crows Nest venues.

For the demonstration to be successful, developed wireless transmission field tests were formulated and run initially on five separate occasions, to ascertain the efficiency and effectiveness of wireless transmission on available equipment, picture and sound quality and visual acuity of the picture of the demonstrator. This was initially achieved within USQ, from room to room and later, to and from Crows Nest CBD and the CWA Hall, to USQ. An additional field test was later conducted from

USQ to the Crows Nest Royal Agricultural Show Pavilion. See photos (Appendix H).

### 8.8.3 Post Demonstration Audio Interview Questionnaire

Individual face-to-face oral recorded interviews were conducted with the participants, regarding their webcam experience with the researcher, to determine attitudes and opinions immediately post demonstration. To avoid bias, the researcher controlled the self-designed structured questions in a systematic fashion, by asking each participant the same question, but also applied the *soft* interview technique to give room for unstructured dialogue (Sarantakos, 1995). The soft interview technique differs from the hard technique, which is a more interrogative technique with rigid questioning, usually resulting in obtaining rigid answers from the interviewee. With the soft interview technique, the subjects are guided through the questions without any pressure being put on them. The respondents gave their views in their own words as a result. These audio recorded interviews, which occurred immediately after the demonstration, captured the participants' perception of their experience. See Interview Questions Appendix G

## 8.9 Data Collection

Data was collected from the Crows Nest CWA Hall on 4 April 2009 and (a month later) on 9 May 2009 at a stall at the Crows Nest Agricultural Society Pavilion, for the 2009 Annual Crows Nest Show. The results from the data will be described in the next chapter.

## 8.10 Research Limitations

Despite all the strategies used to recruit participants the research was limited by the fact that there were only six subjects, therefore conclusions from the research

## Research Methods, Data Collection and Analysis

question can only be drawn in relation to this study. However the insights from this study can be applied to different contexts in order to identify similarities and differences.

### **8.11 Conclusion**

The research was designed to be both qualitative and quantitative, with the intention of collating the responses from the pre-questionnaires, photographing the experience of the farmers participating in the demonstration (for a pictorial historical record of the study) and finally, thematically analysing recorded focus group responses where the sharing of individual thought was expressed. There was also the intention of collating and comparing the demographic variables such as age, gender, size and type of produce on farm, and determining whether this had any relevance to the usefulness and/or experience of counselling or current internet services used in the home, or if any or a combination of these variables determined if farmers in the study would use professional internet counselling services by social workers using a web camera. Despite using all publicity options available at the time of the study, only six subjects participated individually at separate times. Five participated at one venue and one at another. With this in mind, focus groups were therefore not possible and hence the redesign of the research was necessary to include individual post web cam experience, an audio recorded interview questionnaire. While the results of quantitative data were achieved through simple numerical calculations, it was decided any comparisons in relation to variables to be compared with qualitative data, with few exceptions, would be of no use due to such small numbers.

Therefore, due primarily to the qualitative nature of the study, the analysis of the data was developed from a thematic approach, using a colour coded system. Themes were

## Research Methods, Data Collection and Analysis

then determined for individual or group commonalities and appropriately recorded as results.

This study has focused on live on-line real time counselling in the rural shire of Crows Nest and examines whether farmers would access and use live professional internet counselling services by social workers, using a web camera in the privacy of their own home.

Designing of the research took into account the difficulties farmers experience with tyranny of distance, available time and the importance of conducting the research within the context of their own communities, thereby offering a draw card to entice their participation. Consequently, the research was conducted within their own shire, face to face at two live venues familiar to the farmers of Crows Nest. The Crows Nest CWA on 4 April 2009 where a supper was served by a known published chef as another drawcard, and (a month later) on 9 May 2009 at the pavilion of the Crows Nest Show grounds where participants were issued with a comprehensively designed and disguised farmer mental health show bag of information and educational material.

Farmers were recruited using a variety of recruitment methods, which included: the media and researcher's networks for the evening at the Crows Nest CWA Hall and through direct soliciting, local newspaper article and networking through a men's group at Crows Nest for the annual Crows Nest show.

Several instruments were involved, all of which included designing, testing and trialling. These eventually included a pre-demonstration questionnaire, participation of live on air conversation through a web camera using a laptop, with the demonstrator (stationed at USQ, also using a laptop and web camera), with whom

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farmers would converse on any general interest topic of their choice, for which the farmers determined the length of time of their participation. A post-questionnaire was designed and conducted as individual interviews, which were conducted by the researcher at the conclusion of the farmers' conversation with the demonstrator.

The design and methodology was developed to achieve the underlying goal of this research, which was to explore the depth of feeling and beliefs the farmers held in relation to using internet technology to receive live counselling from qualified social workers and to learn how these feelings affected their behaviour in the potential use of live on-line counselling services if they were made available.

While originally designed to be both qualitative and quantitative research, with the intention of collating the responses from the pre-questionnaires, photographing the experience of the farmers participating in the demonstration (for a pictorial historical record of the study) and finally thematically analysing recorded focus group responses where the sharing of individual thought was expressed, it was necessary to remodel the design. This involved redesigning the recruitment methods from individual invitation delivered by Australia Post and snowballing from business cards to using the media and local networks. It also involved reconsidering the focus groups and designing and developing a post demonstration questionnaire that was audio recorded by the researcher with each participant's permission.

While the results of quantitative data were achieved through simple numerical calculations, it was decided that any comparisons in relation to variables to be compared with qualitative data, would, with few exceptions, be of no use, due to such small numbers, as there was a total of only six participants in the study.



## Research Methods, Data Collection and Analysis

Therefore, due primarily to the qualitative nature of the study, the analysis of the data was developed from a thematic approach, using a colour coded system. Themes were then determined for individual or group commonalities and appropriately recorded as results.

The design and methodology used, despite low numbers of participation, was able to provide insight into answering the underlying goal, through the participants' responses to the pre and post questionnaire and their experience of the demonstration.

The following results chapter will further explore some of the ideas and themes that emerge from the data that supports the concept that farmers in this study would access live internet counselling services by social workers, using a web camera in the privacy of their own home.

## **9 RESULTS**

### **9.1 Introduction**

This results chapter presents the findings of the pre and post questionnaires. It also briefly discusses the transmission schedule for both the 4 April meeting at the CWA Hall in Crows Nest and the 9 May meeting at the Crows Nest Show pavilion.

The researcher undertook a qualitative thematic analysis and determined themes, by reading and re-reading the responses from the pre- demonstration questionnaire and from the post demonstration interview questions using a coloured highlighter pen coding system. Common themes, those expressed by more than one person, were grouped together by using the same colour, and sub themes of main themes were identified using combinations of first the primary and then the secondary colours relating to the primary colour. The manual system was chosen, as there was not enough detail in the six subjects' responses in the pre demonstration questionnaire or post demonstration questions to warrant the use or knowledge acquisition of Nvivo, QSRN6 or other software applications that determine the themes from the data electronically.

In addition, due to the inability to be able to attract any more than one subject to the CWA hall at Crows Nest on the evening of 4 April 2009, (for varying reasons), the planned focus group prompting questions were redesigned and adapted to seven interview questions post demonstration. Two of the questions were closed and the remaining five were open. The researcher had to take into consideration the fact that farmers usually have a limited time to attend the local shire agricultural shows.

Recruiting them to participate in a research questionnaire, committing them to sign a consent form and view a demonstration, then be interviewed with a recording device

## Results

in full view of the public and imposing all of this on them ‘cold call’, in their own community-shared territory was a challenging task.

### **9.2 Pre-Demonstration Questionnaire**

The following includes an overview of the main themes that emerged from the pre-demonstration questionnaire conducted with farmers holding property in the area previously known as the Crows Nest Shire.

The data collected showed that there were six respondents. Five were male; four of these were in the 45-64 age group, and one in the 65 + age group. One was female in the 45-65 age group.

Three of the farm properties were larger than 100 hectares, one less than 5, one between five and nine and one between 50 and 99 hectares.

Of the six respondents, the principal produce on the properties included two producing beef, one dairy and two indicated ‘other’, one being honey production the other flowers. One respondent did not specify the type of produce grown.

Respondents’ comments collectively indicated that counselling is an active, not passive activity. Their definitions of counselling included ‘helping’, ‘talking’, ‘giving advice’, ‘providing help’, ‘helping people psychologically’, ‘talking about whatever’, ‘ helping people help themselves’ and ‘talking to someone other than family about problems which may be of concern so that problems can be placed in perspective’.

The respondents indicated that within the Crows Nest Shire there were no counsellors they knew of that farmers could consult. Two suggested that they would speak with their GP if they needed counselling, with one commenting that the

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previous GP was 'kept busy' (meaning with counselling). One suggested 'anyone' in Toowoomba as an option. Toowoomba is some 50 kilometres from the CBD of Crows Nest. One respondent suggested the seat outside the local IGA food store where people tend to gather to meet. This seat was referred to as 'the seat of knowledge'. Two stated that they did not know of any counsellors in the shire.

Of the six respondents, four knew of someone that had previously had counselling, with four stating they believed it to be very useful. One respondent believed it to be useful and one indicated that it was not useful, commenting that it 'depends on both participating'.

Of the six participants, five were computer literate, using a computer and internet at home, while one of the respondents did not have a computer at home to use but did use a computer operating system at a pump station in their daily work.

The types of internet connection used varied, with two participants using Broadband ADSL and two also used satellite, with one respondent having a dial up connection only. Comment was made by one farmer, in discussion whilst being solicited to be a participant, that the family only used dial up because they did not have the time to research the new competitive costing between companies for broadband services and they were unsure of the availability of it on their property. They were also concerned about hidden costs as the family budget was tight. Would the increased speed and user friendliness of a broadband service increase the family usage and have a bearing on their already tight budget? This issue was raised and was of particular concern. One farmer who used satellite did so to listen to a special broadcasting radio station in America that was audio streamed through his ISP. What was interesting was that this farmer was the oldest of the farmers who participated, he had a hearing disability

## Results

yet he was more than likely the most computer literate of all the farmers interviewed. He informed the researcher post interview that he was in his eighties.

None of the respondents used wireless broadband, which is what the researcher used for this research.

Prior to the demonstration, three of the respondents stated that they would not use a camera in their own home to receive counselling from a social worker. None of them already used a web camera for their business activity or for recreation through the internet, yet all were prepared to offer comments in relation to being able to access a counsellor via web cams through the internet pre demonstration. These included:

‘It would be great for those isolated by distance, but also those who are house bound due to disability, a great way for them to meet people’;

‘Needs to be advertised so people who do not go off the farm much find out about it’;

‘Face to face needs to be done initially to establish rapport before attempting this process’.

‘Face to face is far better’.

‘The idea sounds very useful but I do not know if I need counselling’.

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Table 9-1 Table of Themes

Pre-demonstration questionnaire and Post-demonstration interviews:

Participant	1	2	3	4	5	6
Pre-Demonstration: Would you use a web cam in your own home to receive counselling from a social worker?	X		X			X
Post Demonstration: Would you use a web cam in your own home to receive counselling from a social worker?	X	X	X	X	X	X
Satellite		X	X			
Broadband ADSL				X		X
Dial-up service	X					
Use Internet facilities	X	X	X	X		X
Use a computer in your own home	X	X	X	X		X
Communication with family using web cameras			X	X		X
Body Language and Virtual Technology	X	X	X	X		X
Access to information and services		X				
Finance / Cost	X				X	
Comfort with the approach	X	X	X	X	X	X
Visual impact	X	X	X	X	X	X
Sound and Picture Synchronicity	X		X		X	
Privacy	X	X				X
Familiarity with Telecommunications	X	X	X	X	X	X

Key: The X in each box represents each participant's connection to the theme titles described at the top of each column from the collated results of the pre-demonstration questionnaire and post-demonstration audio questionnaire. Participants were identified as 1-6.

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### Post Demonstration Interview Findings

The questions and their subsequent themes from the post demonstration interviews are as follows:

#### 9.2.1 Questions

1. Prior to this demonstration, have you ever experienced talking to someone live through the internet?
2. Can you describe to me how you found this experience?
3. What did you enjoy about this experience?
4. What concerned you about this demonstration?
5. What technical difficulties did you experience in this demonstration?
6. Would you use counselling services through the internet in your own home with a social worker if it were available?
7. Do you have any other comments or suggestions?

### 9.3 Themes

The following themes were identified:

A Familiarity with Telecommunications

B Privacy

C. Audio/Visual

1. Sound and Picture Synchronicity
2. Visual Impact

D. Comfort with the Approach

1. Excitement

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2. Satisfaction
3. Familial Communication and the Family Unit

E Body Language and Technology

F Finance

G Access to Information

### **9.4 Familiarity with Telecommunications**

None of the participants had ever experienced talking to anyone live through the internet using web cameras previously. However, all of them were familiar with what a laptop computer screen looked like and how to use headsets. None of them required assistance to look at the in-built web camera or to speak to the research demonstrator, who was stationed in a room at the university, and whose image and voice were being transmitted live through the web cameras via the internet.

One of the participant's comments, that they found the experience to be 'equal to being on the telephone', clearly demonstrates the ease of familiarity with telecommunication systems. Two other participant's stated they preferred using the web cameras to using emails, 'much better than just emails' and prefer this to using emails'. One of these two commented that he regularly sends emails overseas, to maintain a relationship with a family member who is currently working over there. This clearly supports the theme of familiarity with telecommunication systems.

A. Reflection: The familiarity with ICT is a significant factor in the feasibility of using this type of intervention and whether it could be more broadly applied.



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### 9.5 Privacy

Privacy was raised as a theme, with one respondent describing the experience as ‘Interesting and private’. Even when standing next to the participant, the researcher found it was very difficult to hear what was being said in conversation between the participant and the research demonstrator, because of the efficiency of the high quality headsets and headset microphone.

The activities within the venue on the day were very noisy. There were stallholders displaying their wares and talking to people, flower exhibitions and art and photography exhibitions, with many show goers making comments. In addition, there was a male *a cappella* choir maintaining a repertoire throughout the day within the pavilion. The activities on the field could be heard from within the pavilion as well, but only as background. One of the participants who had a diagnosed hearing disorder had made the comment, ‘that it was difficult to hear the research demonstrator because of the background noise’. He would have liked to raise his voice to combat the background noise to speak to the research demonstrator; however, the Crows Nest Show Pavilion did not offer the privacy for him to be able to do this and it appeared to the researcher observing that because of this factor he was reluctant to do so. The research stall was open and accessible for all passers-by to hear the conversations of the participants unless they were using the headsets provided. As the participant noted:

*‘(It is) difficult because my hearing aids pick up all the background noise here in the show pavilion that it is difficult to cope with’.*

This comment provides an alternative for participants with hearing difficulties to communicate equitably with counsellors through the internet. It also provides insight

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into the advantages the deaf community would have to communicate with each other through web cameras; currently many communicate through text messaging, using emails and Short Message Service (SMS) services also known as 'texting'. This refers to the exchange of brief written messages between mobile phones over cellular networks.

Another of the participants was concerned as to whether anyone was in the room with the demonstrator, and if they could see him in the web camera, or could hear the discussion, they were engaged in.

*'My only concern is that you do not know if anyone is in the room at the other end with her listening'.*

When the participant expressed this to the research demonstrator, she picked up the laptop and moved it around the room to demonstrate to the participant that she was indeed alone in the room. This alleviated any anxiety the participant had in relation to privacy which would have been critical, if he was having a counselling session with her. Satisfied with the response, he proceeded to continue his conversation with her about perceived workings of a service and client response to the technology.

**B. Reflection:** The researcher was surprised at the level of privacy even when standing next to the participants. This indicates that it could be possible to have a private conversation in a farming family household without other people being able to hear the conversation, provided that headsets were of good quality. However, it also demonstrates the difficulties some farmers may have with hearing loss and hearing disorders particularly, using headsets and their need to raise their voices. Therefore privacy may not be assured. While statistics could not be found in relation to hearing damage and farmers, the researcher is aware

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that farmers can have hearing damage due to the nature of their work. There is also the danger of people being uncomfortable in not being able to see the whole counselling room and to know that it is private between the counsellor and the client, just as it is in conventional counselling settings.

### **9.6 Audio/Visual**

Audio/Visual overall has been one of the main themes of the research and how farmers respond to accessing the impact of audio/visual in speaking to another person over the internet. In this master's research, Skype was the web cam program that the researcher chose to conduct web cam calls between the demonstrator and the farmer participants. Each farmer participant used the researcher's laptop to view the demonstrator through the internal web camera and converse with her through the laptop's internal microphone and hear her responses through the internal speakers. Sound was transmitted from each research station, the station in the pavilion at the Crows Nest Show and the CWA Hall with the farmer participant(s) and the station at room G207E at USQ through a wireless network. As each spoke to the other, their voices were carried over the wireless network (in this research the Telstra wireless network) through the mobile radio relay towers, one in Crows Nest CBD, then Harlaxton and lastly to the one at USQ and then back the other way. (The satellite presence is unclear at this point) The visual images of the people sitting in front of the web cameras appeared in the window on the other's monitor. (Please see photos attached in Appendix H)

**C:** Reflection: The researcher was surprised with the amount of effort that was required to continually trial this ICT process to achieve the desired outcomes using a wireless system. In all there were three trials conducted to get it right. With the

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exception of the Crows Nest Show all transmissions required the assistance of technical support. This raised concerns in response to the Federal government's rural provision of the NBN.

### **9.7 Voice, sound and picture synchronicity**

Voice tests conducted by the researcher (a trained FM radio broadcaster) displayed excellent tonal qualities. The research demonstrator was a trained singer who is conscious of creating an audience with her voice. Her voice gave an excellent quality and feminine tone while at the same time being genuine and friendly. Sound and picture synchronicity was a consistent theme. The same two participants in two questions stated that this was both a concern and a difficulty for them. Four participants specifically referred to the time lag between the picture and sound.

What concerned you about the demonstration?

*'The time lapse had a lag. This was somewhat disturbing to my conversation I would say 4/10 annoyance'.*

*'The lip sync. The lag between photograph and voice was disturbing'.*

What technical difficulties did you experience in this demonstration?

*'The lag between picture and sound'.*

*'Lip sync'.*

Do you have any other comments or suggestions?

One participant indicted that in his final comment,

*'The technology has to be greatly improved'.*

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This was a consistent theme throughout the interview. He was not satisfied with the current technology even though he had enjoyed the experience of talking to and looking at the research demonstrator. He described the experience as; 'Equal to being on the telephone'. The lip synchronicity greatly disturbed him and he expressed his frustration at SBS television for having such poor lip synchronicity when broadcasting their service, expressing to the researcher that his response to poor lip synchronicity on the SBS television channel is to turn it off. Sound and picture synchronicity was a constant theme from the participants. It is therefore an important factor in the accessibility and willingness to use technology, that the quality of the communication is not affected by such technical shortcomings.

**C: Reflection:** The researcher was surprised at the ease to which each farmer was willing to discuss the topics they presented to her and for the length of time they chose to speak with her. In hindsight it would have been useful to have the conversations, given that they were not counselling conversations, recorded to enhance these results (Appendix G). The researcher had not noticed the lip sync issue when speaking with the demonstrator in any of the trials. These appeared to occur after the initial setting up and trialling later on the morning (after 9.00 a.m.) of the Crows Nest Show when the participants were recruited and were conversing with the research demonstrator. This indicates the inconsistencies that can occur both with Skype and with wireless transmission at the time of communication. It also indicates that lip sync can be inconsistent using these two mediums together. It could also indicate the synchronicity problems that maybe occurring with the web cameras. From these comments it is necessary for the technology to be improved to have an appropriate clinical counselling application.

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## 9.8 Visual Impact

There has been mention made of the following quotes; however these are included here in specific response to comments the participants made in relation to the picture they were viewing and its visual impact.

What did you enjoy about the demonstration?

*'I enjoyed talking to and looking at Linda [demonstrator]; she is a good talker although she does not know her kilometres from her miles'.*

*'Felt like she was in the same room with me, as good as talking to someone in the same room'.*

*'I enjoyed talking to and looking at Linda'. [Demonstrator]*

*'Facial Expressions assisted in knowing how Linda was feeling'.*

*'I enjoyed talking to and looking at Linda'. [Demonstrator]*

The experience of visual impact and the picture quality was a positive theme as opposed to the picture sound synchronicity.

**E. Reflection:** The researcher put a lot of effort into creating, with limited resources, an easy to look at and attractive image of the demonstrator within the laptop screen. The basic principles of Dr. Max Luscher and the psychology of colour were researched and used as a basis for determining the room colour and demonstrator clothing to complement it. Visual Impact concentrated on blonde dyed hair colour and stage makeup and acceptable 'farmer friendly' clothing with both colour and style. In addition, the room ambience was limited with wall colour. However to compensate, greenery and a window was used for the Skype video picture frame.

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This created a more attractive look of the demonstrator in addition to her voice. The researcher was surprised at the ease with which each farmer was willing to discuss the topics they presented to her and for the length of time they chose to speak with her.

### **9.9 Comfort with the Approach**

People have the experience of engaging in an activity they are familiar with, but not necessarily being comfortable with that particular activity. The emotional responses from the participants showed that they were comfortable with the approach of using the technology. This is indeed different from being familiar with the technology. Some of the participants engaged in conversation with the research demonstrator for a considerable period, one in particular for a period of forty-five minutes. The researcher intentionally did not set a specific length of time for the participants to speak with the demonstrator, as it was understood, it would be important for them to maintain some degree of autonomy over the process. It was left to the farmer participants to decide how long they would speak to the research demonstrator. By taking ownership of determining how long they would spend speaking with her, they took ownership of being comfortable with the approach. One of the participants was so comfortable with the approach that he expressed his response to the question:

Can you describe how you found the experience?

*'Lost contact at one point, re-contact not a problem. I really enjoyed it'*

From the researcher's perspective, the number of dropouts was frustrating on the day, yet this participant did not find the drop out that he experienced as a problem, clearly showing comfort with the approach. He also adds that despite the dropout he really enjoyed it.

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The emotional responses from the participants in relation to the theme of comfort with the approach not only was expressed through their answers such as satisfaction and excitement, but also in the fact they believed their family would also be comfortable with and benefit from this technological approach to communication. They also expressed the view that the experience of participating in this research could in the future be a shared positive emotional experience and benefit for all concerned. Given the number of dropouts that occurred on the day, whilst there were some frustrations for participants that have already been detailed, it did not deter the participants from continuing to participate in the research process, nor did it prevent them from wanting to continue to speak with the research demonstrator. Please refer to (Appendix I) to view the Skype transmission table. While there was absolutely no drop out the evening of 4 April, there was significant drop out on 9 May.

F. Reflection: The ‘comfort with the approach’ highlights the ability for people to have the experience and to be able to respond to the questions from the experience first-hand. In the researcher’s view, this is far more meaningful than showing a demonstration of this activity on the internet and asking them what they think about it. Within the ‘comfort with the approach’ theme the model of experiential learning was able to be determined, creating an experience for the farmer that at this point in time in history, they would not normally engage with or think about.

### **9.10 Excitement**

To the question:

Can you describe to me how you found this experience?

One participant commented, *‘Interesting and private’*.



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Three of the other participants also described their experience to be *'fabulous'*, *'overwhelming'* and a *'great experience'*. It could be concluded that four of the six participants expressed the experience of communicating live over the internet using web cameras as a positive, exciting experience.

G: Reflection: The researcher, while observing the participants individually speak with the demonstrator, was overjoyed to see that they appeared to be excited about their experience, through their body language which included their facial expressions. There was an obvious positive interchange happening between the researcher and the participants and the feeling that they were private in the experience. It would appear that using this medium of communication did create a positive experience for the farmer participants.

### **9.11 Satisfaction**

To the following question:

What did you enjoy about this demonstration?

Two of the six participants enjoyed the experience and expressed the experience as enjoyable, both starting their answers with; *'I enjoyed talking'*. When the researcher was observing the participants speak with the research demonstrator through the web camera, there was indeed at times joy and satisfaction expressed by the participants in their facial expressions.

The theme of satisfaction was again noted in the question:

What concerned you about this demonstration?

With one of the participants stating, *'Enjoyed every minute'*.

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This is again repeated in the question.

Can you describe to me how you found the experience? Another participant expressing it as; *'I really enjoyed it'*.

Four of the participants have stated that the experience for them was joyful, demonstrating satisfaction.

**H:** Reflection: Satisfaction is different from excitement. For the participants to be satisfied with the experience, it demonstrates that the effort put into the trials and, screen and voice testing and recruiting the most suitable applicant was worthwhile, for it created the best experience possible for them. This indicates that the social construction that counselling through ICT is the same as face to face is false. Any concept of face to face counselling with ICT's needs to be carefully thought out and constructed using the expertise of visual and audio skill, combined with professional counselling.

### **9.12 Familial communication and the Family Unit**

The family and how people communicate within the family was another theme expressed by the farmers. Two of the six participants expressed their desire to use the system to communicate with family.

Do you have any other comments?

*'I communicate with my daughter overseas but this would be a really fantastic way to keep in touch with her'*.

In this subject's opinion, the web cameras and software provided a much better communication service for this undertaking, as he would be able to 'see' the family

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member in person. This is an indication of acceptance of the technology as an appropriate form of communication with family members.

*'Fantastic opportunities for people with medical problems like say agoraphobia to meet and talk to people'.*

For a diagnosed disorder such as agoraphobia, it would be an unrealistic task for the client to be transported to a service provider, even if one did exist. Having access to a live chat or psychologist service (not necessarily a counselling or social work service), maybe a way for a farming family member to reduce his feeling of isolation that having a mental health diagnosis such as agoraphobia brings. That family member may then have the option to be able to communicate with other people without having to step outside the comfort zone of their own dwelling. This could alleviate some of the lifestyle communication concerns that a farming family has for a person with a mental health disorder such as agoraphobia, as well as improving communication between family members.

Do you have any other comments?

*'It would be a wonderful way for grandparents to talk to their grandchildren'.*

Another comment, that offers the acceptance of the technology, as a way of combating the tyranny of distances, to 'see' and thus communicate with family members.

Would you use counselling services through the internet in your own home?

*'Yes, definitely would use a service as it is a good way to keep the family unit together'.*

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These comments emphasised the acceptance of the technology and comfort with it to communicate to and keep the family unit together.

Four of the six participants expressed family and family communication as being a theme.

**I:** Reflection: For those in rural and remote regions to be able to experience the presence of their family was one of the most important aspects in their responses. That this research had a recreation offshoot for them that could link them back into their family was one of the major positive aspects of also being able to access a counselling service. It demonstrated their love for their family and the difficulties that are encountered with isolation from family members.

### **9.13 Body Language and Virtual Technology**

Themes were expressed in relation to the interpretation of body language and the opportunities that the virtual experience of communicating live through the internet brings.

What did you enjoy about the demonstration?

‘Facial expressions assisted in knowing how Linda (demonstrator) was feeling’. Clearly indicates that the farmer participant was interpreting the research demonstrator’s body language and was communicating to her accordingly. This acknowledges that communication is more effective if it involves people being able to see each other to interpret their feelings and respond appropriately.

*‘Felt like she was in the room with me, as good as talking to someone in the same room’.*

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This sensation of the person being transported into the room via the web camera assists the participant in being able to communicate effectively with the research demonstrator to the point where they feel they are present in the same room. Again, the opportunity the web camera brings is that it provides the essential visual elements for the persons communicating to be able to interpret their respective body languages and thus communicate accordingly.

*'More personal, more intimate and much better than just emails'*

In this subject's opinion, the web cameras and software provided a much better communication service for this undertaking, as he would be able to see the family member in person, instead of having to resort to an electronic letter that the member responds to.

The family and how people communicate within the family was another theme expressed by the farmers. Two of the six participants expressed their desire to use the system to communicate with family. Do you have any other comments?

*'I communicate with my daughter overseas but this would be a really fantastic way to keep in touch with her'.*

In this subject's opinion, the web cameras and software provided a much better communication service for this undertaking, as he would be able to see the family member in person. This is an indication of acceptance of the technology as an appropriate form of communication with family members.

'Fantastic opportunities for people with medical problems like say agoraphobia to meet and talk to people'.

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For a diagnosed disorder such as agoraphobia, it would be an unrealistic task for the client to be transported to a service provider even if one did exist. Having access to a live chat or psychologist service (not necessarily a counselling or social work service), maybe a way for a farming family member to reduce his symptom of isolation that having a mental health diagnosis such as agoraphobia brings. That family member may then have the option to be able to communicate with other people without having to step outside the comfort zone of their own dwelling. Alleviating some of the lifestyle communication concerns, a farming family has for a person with a mental health disorder such as agoraphobia and improving communication between family members.

Do you have any other comments?

‘It would be a wonderful way for grandparents to talk to their grandchildren’.

Another comment that offers the acceptance of this technology, that it was a way of combating the tyranny of distances, to see and thus communicate with family members. Would you use counselling services through the internet in your own home?

‘Yes, definitely would use a service as it is a good way to keep the family unit together’.

These comments emphasised the acceptance of the technology and comfortableness with it to communicate to and keep the family unit together. Four of the six participants expressed family and family communication as being a theme.

**J:** Reflection: From a social worker perspective one of the reasons for the adoption of the web cameras in the original pilot programme conducted in Lismore (as advised

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by senior social work staff from Charles Sturt University Wagga Wagga) was to be able to interpret the body language of clients. The acknowledgement here is this observation in reverse. The participants were interpreting the demonstrator's body language and facial expressions and delighted in doing so. The researcher felt concerns in relation to the fact that on camera you cannot touch or smell a person and therefore are you fully in their presence? Some of these issues can be important in a counselling role; however the participants did not view this as a deterrent. This indicates that communication interchange between people on camera allows the flow of reading body language for the potential clients as well as social workers.

### **9.14 Finance**

There was one comment that deserves mention for the theme of finance and the reality of farm income to-day.

Would you use counselling services through the internet in your own home if it were available now you have experienced it?

*'For farmers who do not have the assets I have, it would be great. I know what it is like not to have other incomes other than from the farm. I would not use the service as we have a good income stream, although five years ago we had a lot of debt. I think it would be especially good for the young farmers who are in a lot of debt'.*

This comment typifies the reality of family farming and their income streams in the past decade. It offers the opportunity for financial counsellors also to go online to farmers in a more affordable and accessible medium.

**K:** Reflection: There appears already to be respect for the Rural Financial Counselling service throughout Australia; research and funding indicates this. This

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comment supports the concept of the national rural financial counselling service operating through web cameras via the internet with farmers. It would appear that in the future many services will be offered in this way. It also indicates that in times of stress financial counselling is a priority for farmers.

### **9.15 Access to Information**

Access to information is an important component for everyday living. Farmers are often not only geographically isolated, but also isolated from the workings of many health professionals and services. Another theme that stands alone is a response to the question:

Would you use a counselling service through the internet in your own home?

*'Yes a service would be useful as I am aging and need to know about services and where to get help'.*

This participant is acknowledging that the internet would not only provide a service of counselling but would also connect the farmer to other services or assistance that may be required.

The responses from both the open and closed questions within the pre-demonstration questionnaires and the post demonstration recorded interviews provided information from which to extrapolate the above identified themes.

**L:** Reflection: Each of the participants received USQ black show bag full of information on mental health issues that affect both men and farmers. The internet is seen as a useful resource. This is acknowledged in the farmers' use of the internet.



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The following discussions chapter will further explore some of the ideas and themes that emerge from the data.

The conclusions arising from the interviews with farmers suggest that the following considerations are important in encouraging the use of ICT as described here to access counselling. These included:

1. Familiarity with ICT is a significant factor in the feasibility of using this type of intervention and whether it could be more broadly applied.
2. The quality of the communication is an important factor in the willingness of participants to use this technology. It is essential that this is not affected by such technical shortcomings as lack of synchronisation between audio and visual signals.

The potential benefits of web cam counselling for farmers and other matters relating to the results and recommendations as a response to this research will be explored in the following chapter.

## **10 DISCUSSION OF RESULTS**

We, the people of Australia, could give our children and our country no greater gift for the new millennium than the revitalisation and reclaiming of rural Australia. For most Australians today, 'the bush' is the matter of movies, history, and folklore, but not a place to live and work. For the shrinking number of Australians who live there, rural Australia is today a landscape of diminishing opportunity, high costs, poor services and often real hardship. This need not be so. The communications revolution can change much of this. The members of the Information Policy Advisory Council (IPAC) believe that we can deploy the wonders of the Internet and the technological platforms of this 'information age' to transform the possibilities for rural Australia, to the benefit of all Australians. All we need is vision and determination. All we need is a sure focus on the huge opportunities there to be grasped. All we need is a realistic appreciation of the stark consequences of inaction.

(Information Policy Advisory Council (IPAC) 1997, as cited in Groves, 1999)

This above quote is one of many that have been stated in relation to the information superhighway. This superhighway has the potential to provide much needed services and opportunities for rural and remote people by way of service provision, information, education, business, trade and social interaction.

Broadband is a vital tool for Australian farmers. The web uptake amongst the farming community within Australia is almost as high as the national average (Tindal, 2008).

## Discussion of Results

There is substantial evidence that farmers are not only responsible for the productivity of the nation's agricultural industry, but their well-being also directly affects the entire social and economic future of agricultural dependent rural communities within the country. Farmers, unlike most other business proprietors, live and work within their business, whose success is dependent on the weather. This fundamental complexity alone, impacts on both their personal and occupational stress, for a farm business is a place of income, home and recreation. There are no known comparisons within any other modern industry, where these three factors co-exist on a permanent basis for generational lengths of time.

As noted in the literature review, the vulnerability of farmers to stress has been documented and the contributory factors include family dynamics, succession, family breakdown, weather extremes, water allocations, weather unpredictability, land competition from industries such as coal seam gas mining, indigenous land claims, imposed environmental and water regulation, high cost of water for irrigation, financial pressure, isolation, competition from cheaper imports, importation of pests and diseases that threaten their livelihood and the tyranny of distance.

The list is not exhaustive; farmers are experiencing new challenges due to globalisation and cheap labour competition, urban and now mining drift of rural residents, resulting in decreasing farm labour supplies and economic structural adjustment to meet market demands, global population growth resulting in export consumer demand for products, environmental lobbying, deregulation of industries (for example, the Australian dairy industry) and business practice challenges in response to government policies and free trade. When farmers suicide all of their community is affected through personal grief and the loss of their agricultural

## Discussion of Results

knowledge and its application and output within that community and throughout the economy. While individually these losses may appear small effecting only the local communities, these disruptions to industry are significant. One farmer committing suicide in Australia every four days equates to 91 Australian farmers suiciding every year. Within a decade our country has lost 1,000 of its farmers though suicide. Add one tractor death every eleven days to the tally and the statistics become highly significant.

Within farming communities there is interdependence between agriculture for secondary and tertiary industries. Farmers produce the goods, (with the exception of fresh fruit and vegetables for the local market), goods need to be processed, marketed and transported. When farmers are affected by economic destabilisation, all those dependent on farmers, farming and agriculture are also affected. This has been clearly demonstrated recently in Griffith in New South Wales on 19 December 2011, when the business communities within the rural region of the Murrumbidgee Irrigation Area (MIA) rallied with the farmers of the area in response to the release of the Gillard Labor Government's Murray Darling Basin Plan (The Area News, 2011).

It is clear through observation of the photographs of this rally, that rural communities know they are not sustainable unless the livelihoods of the farmers are maintained. For it is agricultural production in its complexity that sustains the health and productive social and economic relationships of rural and remote communities dependent on agriculture. It would appear that when farmers are experiencing well-being, so too are their communities. However, not all communities are as unified, organised and cohesive as that of the MIA. It is known for its cultural diversity, with

## Discussion of Results

a higher than average number of people of European descent, primarily Italian. Other significant cultural groups include South Pacific Islander communities (for example Fijian, Tongan and Samoan), Indian, Turkish, Afghan, Filipino and Pakistani communities and a vibrant Aboriginal community. The colour of the population is that of substantially mixed cultures, with a clearly unified and defined goal to support each other by supporting their farmers. All businesses closed their doors on the day of this rally to support farmers and their business interests by attending. Professional counselling by social workers to farmers using web cameras via the broadband internet is one intervention that may contribute to the improvement of farmers social and emotional well-being, particularly for those farmers undergoing hardship and stress.

The following section summarizes the research presented in this thesis, considers the implications of the results, discusses its limitations, and finally, provides recommendations and suggestions for future research.

This study addressed whether:

Farmers in the area previously known as the rural shire of Crows Nest Queensland will access live real-time professional counselling services by social workers using web cameras via the internet in the privacy of their own home.

The venues for this research were conducted at the CWA Hall on the 4th of April 2009 and the Crows Nest Show Pavilion 9<sup>th</sup> May 2009. The research essentially involved a pre-demonstration questionnaire, a live conversation through a laptop web camera to a demonstrator stationed at the University of Southern Queensland in Toowoomba, and a post demonstration audio interview questionnaire.

## Discussion of Results

The researcher had to take into consideration the fact that farmers usually have a limited time to be involved in research evenings or to attend the local shire agricultural shows. The show attendance for farmers is an annual ritual. Most like to patronise and attend these annual events with heartiness. Most have a prepared agenda of what activities they wish to see in that limited timeframe. Recruiting them to participate in a research questionnaire, committing them to sign a consent form and view a demonstration, and imposing this on them 'cold call', in their own ritualistic territory was a challenging task. All combined instruments could be completed in less than one hour.

In the analysis a qualitative descriptive approach was used as the descriptive data contained quotations said by the farmers to illustrate and substantiate the presented findings which support the research statement. The qualitative results show many themes that have emerged from the research.

For example, it was important that the farmers experience speaking live through the internet with another human being to ascertain their support for speaking live through the internet to a counsellor in their own home. The research became experiential in nature without direct counselling needing to be a component. The process was exactly the same; it is just that one has the component of a freely chosen conversation between two people, one being a farmer, the other a research demonstrator; as opposed to a therapeutic conversation between a professional social worker and a client (farmer). Direct counselling by social workers with farmers for this research would have been unethical, and was not necessary to achieve the results.

## Discussion of Results

Even though the participants had a range of telecommunication experience, there is an important caveat, that they need to have prior experience of the approach used in this study with computers. The participants had a range of experience with computers. The researcher observed that they all felt completely comfortable and safe using the screen and headsets and spoke to the research demonstrator stationed at room G307 at USQ through the laptop with ease. All the participants had to do was talk with the demonstrator. There was no requirement for them to do anything else other than wear the headsets and speak into the microphone and look at the screen. It was not necessary for the researcher to inform the participants of how to either use the computer laptop or speak to the demonstrator. Only on one occasion was it necessary for the researcher to adjust the headsets.

A significant finding from this small case study was that once a farmer had experienced a demonstration of a live web cam discussion with another geographically isolated human being, the experience for them is a positive one. Observations from the researcher and responses from the participants indicated that they were in the flow with the demonstrator.

Flow is the experience people have when they are completely immersed in an activity for its own sake, stretching body and mind to the limit in a voluntary effort to accomplish something difficult and worthwhile (Csikszentmihalyi, 2011).

In this state they are completely absorbed in an activity, especially an activity which involves their creative abilities. During this 'optimal experience' they feel 'strong, alert, in effortless control, unselfconscious, and at the peak of their abilities' (Csikszentmihalyi, 2011).

## Discussion of Results

The researcher observed at both venues that this was exactly what appeared to be occurring. All farmers appeared to be totally engrossed in conversation, never sought acknowledgement or assistance from the researcher, even when the audio/visual program dropped out. They waited for the program to reconnect and continued to talk to the demonstrator until they decided to move on and participate in the audio interview. They then departed after discussion with the researcher and continued with the rest of their evening or day.

The positive experience of the farmers using the technology not only supports the concept of live internet counselling with social workers for counselling farmers, but it also offers opportunities for farmers to be able to reduce their personal and professional isolation within their own business environment by networking with other farmers, family members and other key people in their personal and business lives to improve their social and emotional well-being through access to live real-time audio-visual communication. This could have a bearing on reducing farmer suicide completions.

Research in the past has not examined the possibility of farmers using information technology for live counselling using web cameras to improve their social and emotional well-being. This thesis may be considered to be a relevant contribution to the literature, despite low numbers of participants. When comparing the sample with the ABS data, it is representative of farmers in the Crows Nest Shire (Australian Bureau of Statistics, 2006a).

The main point that has arisen from this research is that three out of the six participants (farmers) stated in the pre-demonstration questionnaire that they would not use internet counselling with a social worker in their own home. However after



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the experience of the demonstration all six indicated that they would. This provides evidence to suggest that farmers in the area previously known as the rural shire of Crows Nest Queensland, *WILL* access professional counselling by social workers using web cameras via the internet in their own home.

One of the main creeds of social work is to empower those who are disempowered. One way of achieving empowerment for oppressed groups in social work research is to involve people for whom the research is intended, in the process as subjects, through their human experience. This generates participatory citizenship and creates experiential learning - that is making meaning from direct experience. The results from their experiential learning to the research question, thereby forms the basis for new knowledge and social change. Experiential learning involves a direct encounter with the phenomenon being studied, rather than merely thinking about the encounter, or looking at forms of social media of the encounter such as U-Tube or a picture of someone else doing it, or only considering the possibility of doing it by thinking about it in their mind (Borzak, 1981). Jarvis states it 'is actually about learning from primary experience that is learning through sense experiences (Jarvis, 1995). This process of involving participants in the process of this research is a key to Action Research (Wadsworth, 1997).

This concept of using webcams for face to face live counselling had not been explored by industry professionals in Australia prior to the original Pilot study, because this type of approach was in its infancy. The technological, industrial, financial, political and ethical complexities are constricting progress and availability for rurally isolated individuals within Australia, particularly farmers who have the highest rate of suicide within the country per capita, to have this support (Caldwell,

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Jorm & Dear, 2004; Edwards, 2008). For example, telecommunication providers are bound by the Universal Service Obligation (USO) for basic telecommunication services for all Australians. This to date has been only for telephony services. However, with the introduction of the NBN and the bringing of broadband to rural communities, this obligation should, in the opinion of the researcher, be considered in the same way (Communications Alliance Ltd, p.3). Unfortunately, there has been strong debate through the Communication Alliance, which is the peak body for the Australian communications industry that it only remains as an obligation for telephones. They propose that this is because such a responsibility will affect competition and not be cost effective. Support for broadband networks to rural users is limited, as shown by Telstra back in 2007 where, it did not consider its new 3G service designed to provide access to telephony, fax services and broadband internet to its rural customers, to fall under its universal service obligations (Lewis, 2007).

The final Communication Alliance Universal Service Obligation Review does not support the extension of the USO beyond voice (Communications Alliance Ltd, p.3).

The current Commonwealth government has neglected the service provision to its rural and remote citizens with the current rollout and design of the NBN. Interim satellite is inadequate for face to face contact via web cameras. Personal experience suggests satellite Skype transmissions can substantially freeze to where there was no movement in the picture at all. Any reading of body language for proposed clinical purposes for social workers in this situation would have been impossible. On every occasion, the voice transmission was interjected with staccato like cutting off of sentences. Adjustment of sound indicators did not assist with this to create an enjoyable auditory experience. This did not even give the opportunity for

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professional voice counselling. Further, while the NBN fixed wireless proposal will be very well designed and built, the maximum distance attainable by a tower will be set at 11km with a soft limit of 7km. This most likely means the NBN will never come the way of many farmers as satellite is not always suitable due to the mandatory 500ms+ latency. The use of 3G is limited. During the transmission to Crows Nest on 9 May 2009, there were 29 dropouts using the web cameras and Skype (Appendix I), using the Telstra carrier approved wireless dongle. At the time these drop outs occurred, all mobile phone coverage at the Crows Nest show pavilion also dropped out. Acknowledgement is made of the difficulties with equipment, however for the purposes of supplying quality health care through web cameras, the engineering capacity and mode of transmission needs to be addressed to provide equitable service delivery for all Australians.

Failure of the Commonwealth government and the Communication Alliance to recognise the internet as an essential communication tool for rural and remote people undermines their important financial contribution to the economy. The decision by communication carriers only perpetuates oppression by withholding essential services for business, pleasure, education and entertainment. Information and future service provision to rural and remote Australian citizens such as internet counselling to improve well-being are being restricted by financial concerns of the carriers, which in turn are supported by the dominant discourse of the de-regulation of the telecommunication industry, and hence profitability to its shareholders.

The Commonwealth government needs to make access to the NBN a mandatory human right for every Australian in keeping with the World Health organisation's priorities for rural and remote peoples. Whilst broadband penetration is increasing,

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there is not a clear public policy rationale to ensure universal supply of broadband services. The lack of service and obligation will not only affect farmers and other groups within rural and remote communities within Australia, it will affect Aboriginal and Torres Strait Islander peoples within Australia's rural and remote areas. In addition to denying access to a service, the question of who delivers the service is also important.

The technology for this type of service, which can improve accessibility for counselling for farmers, needs to be vastly improved. The difficulties with web cameras are that the speed of light and the speed of sound do not mix well on web cameras. There is a process delay with these cameras. Sometimes this can be alleviated by using a web camera with a greater memory capacity of 3.1.megs or higher, anything smaller than that having a slower response time. Recording with a low resolution window can also help, such as 160x120 versus 320x240. This helps with less response delay time between cameras. An external microphone can assist with unidirectional sound. It also gives the ability to be able to tweak the distance between the microphone and the webcam to synchronise the video and sound.

Social Work has been described in the literature review chapter as an interdisciplinary field covering combinations of various disciplines including sociology, psychology, economics, organisational analysis, anthropology, and politics. According to Alston and Bowles (2003), social work is now developing its own research orientation and knowledge base that has grown from these other disciplines.

They determine that as social work practice continues to develop and become more cutting-edge, the role of Social Work research in all facets of its discipline, from

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needs analysis to intervention to action and evaluation of practice, is becoming more critical (Alston & Bowles, 2003).

Social work therefore is a professional and academic discipline that seeks to improve the quality of life and well-being of an individual, group, or community by intervening through research, policy, community organizing, direct practice, and teaching on behalf of those afflicted with poverty or any real or perceived social injustices and violations of their human rights.

Further; in a study conducted by Sharpley in 1986, where a survey of knowledge and attitudes towards four mental health professionals (psychologists, psychiatrists, social workers and counsellors) was conducted with a representative sample of Australians:

Social workers were regarded as more practical and able to help the average person solve more emotional problems. Have joined psychologists and psychiatrists and provide effective intervention for persons who require assistance with psychological adjustment. Further, social workers were also predominantly seen as studying the mind and thoughts, but helping with social problems/disorders over five times as much as psychologists. The only sympathetic drawback noted for social workers was that they were seen as underpaid, over-worked and inadequately supported by government. Nearly half of the respondents believed more counsellors were needed... but they need to be more accessible (Sharpley, 1986, pp.57).

Given these results it is likely that professional counselling by social workers to farmers using web cameras via the broadband internet is one intervention that may assist in improving their social and emotional well-being and may possibly reduce

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farmer suicide completions by the practical help provided to solve most social and emotional well-being problems.

The opportunity for social workers to offer a service that would reach into the homes of farmers is indeed the beginning of the creation of a new paradigm for rural and remote Australians. Until now, jurisdictional guidelines have been concerned about regulating local area information and therapeutic services, however online counselling therapy and mental health covers the world; a client may be located anywhere the client has a computer. This brings with it many questions for professional social workers.

The rationale for using emancipatory action research is situated within a critical social work theory context with a social constructionist epistemology. This approach was chosen as it was imperative to the researcher to find a methodology that was in harmony with the AASW Code of Ethics.

## **11 CONCLUSIONS AND RECOMMENDATIONS**

### **11.1 Regulation of social workers and counsellors.**

A new paradigm must emerge in the delivery of social work services aimed at reducing the farmer suicide rate by offering social work services that farmers can access. It is clear that the current health process of training, recruiting and retaining social workers in rural and remote Australia is not working (Services for Australian Rural and Remote Allied Health, 2000). Services delivered via the internet may be a way of offering live professional social work services to farmers who would appear to be the most 'at risk group' of suicide within rural and remote communities in Australia. Ultimately the purpose of the study is to ascertain whether, if a live counselling service staffed by social workers were made available to them, they would use it.

In an effort to increase the participation rate of social workers in the workforce and to increase health service delivery to farmers the internet may provide a valuable tool in being able to achieve this and improve their well-being.

The Queensland plan for Mental Health 2007-2017 hopes to improve mental health services to people in rural and remote areas, including farmers, by providing \$2.36 million to develop a service model for rural and remote mental health services (The State of Queensland & Queensland Health, 2008). This will be done in collaboration with Queensland Centre for Rural and Remote Mental Health, and the focus will be to develop innovative strategies to improve the recruitment, retention, adjustment and development of mental health workers in rural and remote areas. By 2011 it was hoped that the number of clinical staff employed in community public mental health services would increase by 21 percent. This increase would mean there would be 48

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full time staff per hundred thousand of the population. However current data has been unavailable to the researcher on this matter for this thesis. By 2017 it is hoped that there will be an improved capacity to provide mental health services to people in rural and remote areas (The State of Queensland, Queensland Health, 2008).

The internet may provide a valuable resource to rural and remote people, including farmers, and act as a vital tool for the delivery of counselling services by social workers. Within Australia the provision of counselling and other health related services over the internet is an alternative way of providing treatment for clients. According to Swan and Tyssen (2009) individuals with mental health issues are seeking on line counselling. The advantages of on line counselling as opposed to traditional health service delivery is that it overcomes *the tyranny of distance*, for both client and professional, and assists particularly in rural communities to address issues of anonymity, financial access, privacy, community perceptions, delays in receiving help, lack of access to services, confidentiality, cost of transport and stigma.

There has been little research on how services could provide counselling to rural and remote people, in particular farmers. However one counselling initiative known as Counselling Online, was an Australian pilot web based alcohol and other drug (AOD) intervention service.

Counselling Online has shown enhanced AOD service accessibility through its service responsiveness, high level of after-hours service utilisation, and appeal to a client group that differs from those seen in conventional and telephone AOD counselling services. The capacity of web based services such as Counselling Online



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to enhance service accessibility is significant, particularly for clients whose access to conventional treatment services is limited (Swan, 2009).

Up until now jurisdictional guidelines have been concerned about regulating local area information and therapeutic services, however online counselling therapy and mental health covers the world; you can have a client anywhere the client has a computer. This brings with it many questions for mental health professional social workers.

However, for internet counselling to meet the strict criteria of professional social workers they must be able to see their client. Emailing and telephone counselling is restrictive for both professional and client. There are difficulties experienced in interpretations of text language, bias, lost communication in relay time, and ability to create an identifiable person. Body language can be interpreted by both worker and client and it is impossible to follow the AASW standards of practice without web cameras.

In 2011 The Australian Association of Social Workers submitted their proposition to the national and state government health ministers for the National Regulation of the Social Work profession, for the profession to be included in the National Regulation and Accreditation Scheme along with other health professionals. This submission was titled Protecting the Health and Well-Being of Australian's (Australian Association of Social Workers, 2011). The Australian Health Practitioners' Regulation Agency (AHPRA) oversees the registration and accreditation of ten health professions within Australia. It came about due to the Health Practitioner Regulation Law Act 2009 (Commonwealth) (National Social Work Policy Institute, 2010). The Act was a result of the Intergovernmental Agreement for a National

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Registration and Accreditation Scheme for the Health Professions, signed by the Council of Australian Governments on 26 March 2008. The new system will for the first time create a single national registration and accreditation system for ten health professions, namely chiropractors dentists (including dental hygienists, dental prosthetists and dental therapists), medical practitioners, nurses and midwives, optometrists, osteopaths, pharmacists, physiotherapists, podiatrists and psychologists. The new scheme will maintain a public national register for each health profession that will ensure that a professional who has been banned from practicing in one place is unable to practice elsewhere in Australia. Social Workers form part of the allied health workforce throughout Australia and, given their tertiary training, there appears to be an anomaly in the fact that they are not currently included in this scheme. This anomaly must be addressed to improve the health and well-being of all who are served by social workers and to bring Australia's health professional standards in line with those of other OECD countries.

The present situation permits deregulated, doctors, nurses, psychiatrists and psychologists to hang up their new shingle with the title 'Counsellor'. People are vulnerable, impressionable and malleable and easily exploited when seeking counselling. The author's research showed some phone - in services are very well screened by government departments, but there are others that have a limited screening process that can attract predatory, or voyeur type personalities. In 2005-2006 The Victorian Health Services Commission investigated four complaints against counsellors. It indicated it did not warrant registration. However, how many people do not complain, know how to complain, or can judge whether their treatment is in fact assisting when in distress (National News, 2006).

## **11.2 NBN Broadband Universal Service Obligation**

The Australian government has neglected the service provision to the bush with the current rollout and design of the NBN. Interim satellite is inadequate for face to face contact via web cameras. During the write - up phase of the thesis, the researcher had Skype contact with a colleague living only 55 kilometres from the University of Southern Queensland. During all Skype transmissions, which were conducted in the evenings (often when farmers are more available) at the researcher's university office, it was not unusual for the satellite transmission to freeze where there was no movement in the web camera picture at all. Any reading of body language was impossible. On every occasion the voice transmission was interjected with staccato like cutting off of sentences. Further, while the NBN hard wireless proposal will no doubt be very well designed and built, the maximum distance attainable by a tower will be set at 11km with a soft limit of 7km. This most likely means the NBN will never come the way of many farmers, as satellite is not always suitable, due to the mandatory 500ms+ latency and cost, particularly now the isolated remote farmer satellite subsidy has been withdrawn by the government.

All Australians must be able to have equal access to telecommunications. The current government needs to respond to the issues of equity in, education, business and pleasure and offer all farmers and those living in rural and remote communities' equal access to the National Broadband Network.

## **11.3 Further Research**

Further research needs to be applied, given the success of this research and 'proof of concept' to demonstrate all the factors that would assist in the development of a new service delivery model to farmers to improve farmer well-being via a live face - to -

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face counselling service by professional social workers to the farmer. This may have an impact on reducing the number of suicide completions. Conduct of research by a multidisciplinary research team including an ICT engineer, and a social work trained farmer would be ideal. Matters that have been raised by the participants need also be taken into account by way of supply of an appropriate accommodating technologically fitted out service vehicle to reach outlining areas to test and determine the viability of using broadband and satellite services for a new service delivery model. Accommodation by way of a fitted out vehicle also doubling as an operational office and meal allowance would need to be provided.

### 11.3.1 Personal Reflection

I was unable to submit my thesis on time due to the great flood of January 10, 2011 with my home being affected in Toowoomba Queensland. Ironically, prior to this, my thesis focus had been in relation to farmers' social and emotional well-being as a response to the great drought of the past decade. In tough times my father would say 'We can do a lot about a lot of matters but we can't do much about the weather'. It is time to stop the blame game of climate change, indigenous land rights, loss of endangered flora and fauna, animal cruelty and the plethora of all other environmental and social causes on farmers. This neo-liberalist thinking is passé. Farmers provide for our global food security on the hope of good seasons. As my mother always says, 'Without hope we have nothing'. It was 'hope' that I hung onto to complete this thesis when others let go.

In the end I realised that as a social worker I had been working within a social constructionist epistemology, using social work critical theory and action research as a methodology. It was difficult to reach this comprehension as there is no Social Work faculty at my university. I often found myself floundering as there were no

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professional social workers employed or studying at USQ who may have been able to offer dialogue with me on these important issues. Those in the industry that I approached within the city of Toowoomba did not have the time to engage in student support and the social work professional membership group branch had disbanded. This made me more aware of the issues farmers face with their professional isolation particularly for those who are geographically isolated, isolated from their community and family recreational activities due to their work pressure and commitments which also has a bearing on their finances again further isolating them. All of which may have an impact on suicide completions.

The initial realisation as a social worker, that I had been using action research by default during most of my career, gave recognition to my previous work in health promotion and health education in the rural and remote communities that I had served. I experienced regret that I had not known how to academically write evaluation reports of these previous events to academic masters' publication standard. Upon reflection I believe all professional social workers need to continue to engage in post graduate academic research to help build the knowledge base of social research and effect change, given this is our profession's mandate.

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# 13 APPENDICES


## APPENDIX A

www. **Nationwide Counselling** .com.au

**HOME**

- What do we do?
- Who do we serve?
- How do we operate?
- What are our hours?
- Contact details

**WELCOME**

A detailed map of Australia showing state and territory boundaries, major cities, and geographical features. The map is framed with a red border and includes a scale bar and a north-south axis.

www. **Nationwide Counselling** .com.au

**HOME**

- What do we do?
- Who do we serve?
- How do we operate?
- What are our hours?
- Contact details

Our trained staff deals with a range of issues;

• Loneliness	• Family Relationships
• Mental Health	• Grief and Loss
• Sexual Health	• The Elderly
• Youth Issues	• Domestic Violence
• Alcohol, Tobacco and Other Drugs	• Referrals to Other Professionals



This list is an indication of the topics we cover, and although your issue may not be listed, it is most likely supported.

Our staff also refers clients to other services. For example, if you are experiencing financial difficulties our staff may refer you to experienced rural financial counsellors, as close as possible to your location.

This service is unlike any other available. All staff are committed to the Code of Ethics that has been adopted by Nationwide Rural Counselling from the Australian Association of Social Workers. This requires maintenance of high levels of confidentiality.

Anything that you confide during counselling cannot be recorded or heard by a third party - Nationwide Rural Counselling is a secure site. All information remains confidential between your and your counsellor, unless you reveal intent to harm either yourself and/or others.

www. **Nationwide Counselling** .com.au



- What do we do?
- Who do we serve?
- How do we operate?
- What are our hours?
- Contact details


### Who Do We Serve?






This service has been designed to assist regional Australians living outside metropolitan cities where decisions are made and services are many.

It can accommodate all rurally isolated categories of people; men, women, people from rurally isolated backgrounds, people with disabilities and young people (although as this service involves a legal contract between the counsellor and their client, people under 18 years of age can not access this service and are not encouraged to do so).

People from urban areas can also be accommodated, but are not regarded as being a priority and may be referred elsewhere.

**www. Nationwide Counselling .com.au**



-  What do we do?
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### How Do We Operate?


We have tried to keep the operation of this service as simple as possible for all users. This service offers both telephone and Web Cam counselling via a PC (IBM compatible) or Apple (Macintosh).

You choose your own appointment times for either a telephone or Web Cam session by emailing a request to [nationwideaustralia@bigpond.com](mailto:nationwideaustralia@bigpond.com) or by telephoning our reception staff on **+61 (02) 6624 7007**.

Payment can then be arranged through credit card, cheque, money order or direct deposit.

Your appointment time will be confirmed by e-mail or phone. Five minutes prior to your appointment time your personal counsellor will be waiting for you to make contact. You will not be kept waiting unnecessarily, and you will have complete privacy during your session.


www. **Nationwide Counselling** .com.au



- What do we do?
- Who do we serve?
- How do we operate?
- What are our hours?**
- Contact details

### What Are Our Hours?

Because many people are not available 9am to 5pm due to work or family commitments, you, the client, have a **choice** to nominate your own appointment hour from 8am to 8pm weekdays (subject to availability).



**www. Nationwide Counselling .com.au**




-  What do we do?
-  Who do we serve?
-  How do we operate?
-  What are our hours?
-  Contact details

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### Contact/Appointment Details\*

If you wish to use this service, please email [nationwideaustralia@bigpond.com](mailto:nationwideaustralia@bigpond.com) or phone +61 (02) 6624 7007 to make an appointment time, making note of your location and time zone.

Nationwide Rural Counselling's consultation fee is \$45 per one hour session.



**\* Disclaimer:**

- 1) Due to the demand on this service we do require a cancellation notice of 24 hours, else we will bill you a cancellation fee of \$25.00
- 2) If you disclose intent to harm yourself or others, this will be reported to the appropriate authorities.
- 3) This service is based in Australia - all pricing is quoted in Australian dollars and all times quoted in the current eastern Australian (New South Wales) time.
- 4) Any advice given by the counsellor is accepted by you at your own risk.
- 5) The counsellor does not accept any liability or responsibility for any loss, damage, and/or injuries suffered, nor for any action, or inaction, taken by you as a result of the counselling session.
- 6) If you engage this service, you acknowledge and accept that you will not bring about action, legal or otherwise, against Nationwide Counselling, or the counsellor, for counselling or other services herein provided.
- 7) Use of this service deems acceptance of these terms



This site is continually being updated, and was last modified on  
**11/1/2002.**



## APPENDIX B

### Social Work Education, Training and Accreditation

Given the confusion of a definition for social work from country to country and the diversity of tasks it would appear there may also be some misunderstanding of their training, which may come about as anyone can use the title 'social worker' without necessarily being qualified. Australia is one of the few places in the world where this can happen. The Australian Association of Social Workers (AASW) reviews and accredits social work degrees offered by Universities throughout Australia to establish whether graduates are eligible for membership of their professional association ([Australian Association of Social Workers, 2010b](#)). Social work education has modified traditional subjects historically variously named sociology, anthropology, politics, history, social theory, psychology and human development and behaviour to now incorporate the everyday use of subjects including psychology, sociology, economics, communication, counselling, politics, social research, organisational analysis, statistics, law, capacity building (community development) and ethics. ([Australian Association of Social Workers, 2008b, p. 12](#)).

Essential to social work is the recognition that individual need is influenced by socio-political and economic factors. For example changes in government legislation and policies or the environment at large may entail the addition of new subjects for study ([Australian Association of Social Workers, 2008b](#)). The introduction of Family/Welfare Law subjects is one example in response to Justice Murphy's 'no fault divorce' law reform on marriage in the 1970's ([2008](#)).

The Australian Association of Social Workers (AASW) reviews all social work programs every five years to ensure graduates are able to demonstrate they have met the minimum requirements necessary for their successful attainment of their degree which enables professional practice. This is done by an accreditation panel that consists of AASW members approved by the AASW Board. Universities have the opportunity to invite experienced accreditation panel members to chair a review or act as consultants to establishing new social work courses or programs. ([Australian Association of Social Workers, 2008b](#)).

The recognised minimum qualifications to become a member of the professional association and to be employed as a professional social worker include a Bachelor in Social Work or a Masters in Social Work (qualifying). The undergraduate social work degrees approved by the association requires a minimum of 4 years tertiary study at University level including 980 supervised hours of clinical and community placements and are reviewed regularly by the AASW to determine if standards meet AASW eligibility requirements. To work as a qualified mental health social worker requires the four year Bachelor degree and an additional two years of full-time clinically supervised supervision by an experienced mental health social work practitioner before applying for accreditation with the AASW. This qualifies the social worker to work as a specialised mental health social work practitioner.

In 2008 the AASW prescribed specific mental health curriculum content for social work qualifying courses throughout Australia. The statement of curriculum content and compliance forms part of the new AASW Education and Accreditation Standards (2008). The content identifies the basic attitudes and values, knowledge and skills aimed at preparing social work graduates to respond to clients mental health

problems in a range of practice settings ([Australian Association of Social Workers, 2008b](#)).

There is no legal registration for social workers in any States of Australia. However, given the AASW is the standard-setting body for social work in Australia and positions with most government social work employers require eligibility for membership of the AASW. In order to be eligible for membership, one of the AASW-approved BSW or qualifying MSW degrees is essential. It is important to note that not all degrees offered qualify.

In 2011 The Australian Association of Social Workers submitted their proposition to the national and state government health ministers for the National Regulation of the Social Work profession for the profession to be included in the National Regulation and Accreditation Scheme along with other health professionals. This submission was titled Protecting the Health and Well-Being of Australian's ([Australian Association of Social Workers, 2011](#)). The Australian Health Practitioners Regulation Agency (AHPRA) oversees the registration and accreditation of ten health professions within Australia. It came about due to the *Health Practitioner Regulation Law Act 2009 (Cth)* ([National Social Work Policy Institute, 2010](#)). The Act was a result of the Intergovernmental Agreement for a National Registration and Accreditation Scheme for the Health Professions, signed by the Council of Australian Governments on 26 March 2008. The new system will for the first time create a single national registration and accreditation system for ten health professions: chiropractors; dentists (including dental hygienists, dental prosthetists and dental therapists); medical practitioners; nurses and midwives; optometrists; osteopaths; pharmacists; physiotherapists; podiatrists; and psychologists. The new

scheme will maintain a public national register for each health profession that will ensure that a professional who has been banned from practising in one place is unable to practise elsewhere in Australia. Social Workers form part of the allied health workforce throughout Australia and given the training there appears to be an anomaly as to the fact that they are not currently included in this scheme. In the AASW's 'Duty of Care a Case for Statutory Regulation of Social Work' as far back as June 2004 conclude that'

'Registration of Practice and Title, description of acceptable and unacceptable behaviours, and a fair, transparent regulatory process are all essential elements of an adequate system of professional regulation of social workers'

The Australian Association of social workers urges all health ministers to support regulation of social work in the form of licensing'. ([Australian Association of Social Workers, 2004, p. 21](#)).

### Code of Ethics

A code of ethics is necessary to ensure the safety of both client(s) and practitioners. Codes of ethics are based on the establishment of ethical principles of particular professions. Ethics involve or encompass norms that are deemed to be universally beneficial to all. They tend to set a standard by which all action can be judged. At an individual level, ethics are value systems that enable individuals to apply a set of principles to their actions and to work out their obligations to others. ([Powell, 2006](#)).

Social workers who are members of the Australian Association of Social Workers are bound by the Code of Ethics in its uniformity nationwide ([Australian Association of Social Workers, 2010a](#)). Professionals who are not members of the AASW are not

bound to follow this code of ethics. Other health professionals have separate codes of ethics for each state. Even though each state within Australia has an AASW office, the AASW membership itself is to a national organisation and hence national code. Membership to the AASW is voluntary. Even though each state within Australia has an AASW office, the AASW membership itself is to a national organisation and hence national code. Membership to the AASW is voluntary.

### **Legislative right to practice social work**

The AASW is the standard-setting body for social work as stated and many jobs require eligibility for membership of the AASW; however there is no legal registration or requirement of any sort for people to practice or title themselves as a social worker within any State within Australia. ([Australian Association of Social Workers, 2010b](#))

## APPENDIX C

TOOWOOMBA QUEENSLAND 4350 CRICOS: QLD 00244B NSW 02225M  
AUSTRALIA TELEPHONE +61 7 4631 2300 www.usq.edu.au

Office of Research and Higher degrees

Ashley Steele

Research Ethics Officer

PHONE (07) 4631 2690 | FAX (07) 4631 2955

EMAIL steele@usq.edu.au

Friday, 10 October 2008

Ms Kayleen Bromley

PO Box 279

Drayton North 4350

Re: Ethical Clearance – Strengthening Farmers Through the Camera’s Eye

Dear Ms Bromley,

The USQ Human Research Ethics Committee recently reviewed your application for ethical clearance. Your project has been endorsed and full ethics approval was granted 01/10/2008. Your approval reference number is: **HO8REA066** and is valid until **01/10/2009**.

The Committee is required to monitor research projects that have received ethics clearance to ensure their conduct is not jeopardising the rights and interests of those who agreed to participate. Accordingly, you are asked to forward a **written report** to this office after twelve months from the date of this approval or upon completion of the project.

A questionnaire will be sent to you requesting details that will include: the status of the project; a statement from you as principal investigator, that the project is in compliance with any special conditions stated as a condition of ethical approval; and confirming the security of the data collected and the conditions governing access to the data. The questionnaire, available on the web, can be forwarded with your written report.

Please note that you are responsible for notifying the Committee immediately of any matter that might affect the continued ethical acceptability of the proposed procedure.

Yours sincerely

Ashley Steele (ORHD)

APPENDIX C1

Centre for Rural and Remote Area Health (CRRAH)

Dear Farmer,

My name is Kayleen Bromley I am a Masters of Health student at the University of Southern Queensland. I was raised on a property and I am still very much connected with the land, having lived and worked as a health care professional in rural communities for the past 40 years. I would like to now give something back to an industry and environment that has supported me.

The purpose of my study is to determine whether farmers consider counselling services delivered by social workers using internet video conferencing in their own home as acceptable. I intend to explore the study by seeking participation from interested farmers who live and work in what was previously known as the rural shire of Crows Nest.

I am asking you to support this study by participating in a short community forum to be held at The Crows Nest CWA Hall on a Friday evening TBA from 7-8pm. Whilst there you will view a demonstration of the use of internet video conferencing, complete a short questionnaire (multiple-choice) and participate in a discussion about this research. After which a light supper will be served.

The information will be anonymous and may be used to make recommendations to improve health services for farmers. Hard printed data will be kept in a locked filing cabinet for 5 years and electronic data will be kept on a password protected computer

Your participation is entirely voluntary and your support would be greatly appreciated. Your agreement to volunteer will allow me to gather information from the questionnaire about your experiences with information technology. Could you please RSVP the Self Addressed Envelope with the signed consent form by XXXXX.

Any questions regarding the study can be directed to me- Kayleen Bromley (ph. 4631 1993, or email bromley@usq.edu.au). Any concerns you may have about ethical issues in this study should be directed to the Human Research and Ethics Committee, University of Southern Queensland (ph. 07 4631 2956).

I consent to participate and I understand that I can withdraw at any time.

Name (please print).....

Signature.....Date.....



CENTRE FOR RURAL AND REMOTE AREA HEALTH (CRRAH)



THE UNIVERSITY OF QUEENSLAND AUSTRALIA

A Joint Research Centre of the University of Southern Queensland and The University of Queensland

West Street Toowoomba Q 4350 Phone: (07) 4631 1993 Fax: (07) 4631 5452 Email: bromley@usq.edu.au USQ CRICOS NO 00048

Dear Farmer,

My name is Kayleen Bromley I am a postgraduate student at the University of Southern Queensland. I was raised on a property and I am still very much connected with the land, having lived and worked as a health care professional in rural communities for the past 40 years. I would like to now give something back to an industry and environment that has supported me.

The purpose of my study is to determine whether farmers would consider counselling services delivered by social workers using internet video conferencing in their own home as acceptable. I intend to explore the study by seeking participation from interested farmers who live and work in what was previously known as the rural shire of Crows Nest.

I am asking you to support this study by participating in a short community forum to be held at The Crows Nest CWA Hall on a Friday evening the 3rd of April commencing at 7 p.m and lasting an hour or two. Whilst there, you will view a demonstration of the use of live internet video conferencing, complete a short questionnaire (multiple-choice) and participate in a discussion about this research. After which a light free supper will be served by published health chef Sue Belfitt.

The information will be anonymous and may be used to make recommendations to improve health services for farmers.

Your participation is entirely voluntary and your support would be greatly appreciated. By agreeing to volunteer will allow me to gather information from the questionnaire about your experiences with information technology.

Any questions regarding the study can be directed to me - Kayleen Bromley (ph. 4631-1993), mobile 0438-177111 or email bromley@usq.edu.au. Any concerns you may have about ethical issues in this study should be directed to the Human Research and Ethics Committee, University of Southern Queensland (ph. 07 4631 2956).

Could you please sign and return the consent form below and send to: Kayleen Bromley Centre for Rural and Remote Area Health USQ West Street, Toowoomba QLD 4350.


I consent to participate and I understand that I can withdraw at any time.

Name (please print).....

Signature..... Date.....




APPENDIX D




Centre for Rural  
and Remote Area  
Health

Men, need to talk about their stress. Let me help you find out if internet video conferencing for farmers in their own home with a social worker is a convenient way to do this.

When: Friday 3rd April 7 p.m  
Where: CWA Hall Crows Nest  
What: A questionnaire, demonstration and discussion.  
Why: Because farmer health and stress are directly linked.  
Free: Supper  
More Info: Phone, email or check out the website



USQ  
AUSTRALIA



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

A Joint Research Centre of the University of Southern Queensland and The University of Queensland

**University of Southern Queensland**



USQ  
AUSTRALIA

Kayleen Bromley  
Farmer Health Research  
Post grad. Student

**Centre for Rural & Remote Area Health**

TOOWOOMBA QUEENSLAND 4350 AUSTRALIA  
Telephone 07-46311993 Fax +61 7 4631 5452  
Mobile 0438-177111  
Email [bromley@usq.edu.au](mailto:bromley@usq.edu.au)

CRICOS QLD 00244B NSW 02225M

**Toowoomba • Springfield • Fraser Coast** [usq.edu.au](http://usq.edu.au)

## APPENDIX E

### Darling Downs farmers trial online professional counselling

Farmers in the Crows Nest region were among the first in Australia to trial online professional counselling communication.

The project was a result of innovative research by a team of USQ experts in health care, information technology and student services, led by postgraduate student Kayleen Bromley.

Ms Bromley has spent more than 30 years working as a health care professional in rural communities and believes modern technology can be used to make counselling more accessible to farmers.

'Professional counselling is not available to many people in rural and remote communities,' Ms Bromley said. 'When you consider one Australian farmer suicides every four days, which is twice the national average, this is unacceptable.'

A decade ago Ms Bromley conducted a self-funded pilot study of online counselling for rural and remote Australians using live chat software and dial-up Internet. She said although the trial was well-received by the participants in the program, she could not guarantee clients complete confidentiality because of the limited available software at the time.

'I will not knowingly offer a service without this essential criteria being met,' she said. 'Offering an internet service is much more than just being able to make your job easier or an extension of your business and a bit of marketing. A great deal of thought needs to go into ethics and professionalism when dealing with Australia's people which includes research on the technological side of things.'

'If we are going to improve people's well being then we need to think about doing that impeccably.'

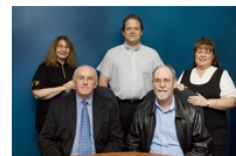
In order to make this project viable, Ms Bromley's postgraduate research has incorporated a triangular approach between the [Centre of Rural and Remote Health, Division of Information and Communication Technology](#) and [Student Services](#) with effective communication, commitment, availability and respect between the team being a key to its success.

With USQ information technology experts involved in the project, Ms Bromley has been able to improve the likelihood of an ethical confidential service by using Broadband Internet, webcam and a software application that enables telephone calls to be made over the Internet cheaply.

'It is great to see staff and students successfully combining to provide the possibility of a vital and important service to the community,' she said. 'The triangulated approach across disciplines has also broadened USQ's scope in research.'

Ms Bromley said the team may present their recommendations at Federal level.

Media Contact: Madeleine Tiller, [USQ Media](#), +61 7 4631 1163 or 0406 937795



Brian Kissell, Professor Don Gorman, Linda Furminger, Troy Downs and Kayleen Bromley are working together to provide online counselling services for local farmers



## Local USQ research student seeks farmers' assistance on viability of internet counselling

Wednesday, March 18 2009

After spending more than four decades working as a health care professional in rural communities, University of Southern Queensland (USQ) research student Kayleen Bromley knows first hand the stress that living on the land can cause farmers.

That is why Ms Bromley, who is based at USQ's Centre for Rural and Remote Area Health, is conducting research as part of her post graduate degree that could help farmers deal with these stressors from their own homes.

'The purpose of the study is to determine whether farmers will access counselling services delivered by social workers using live internet video conferencing in the privacy of their home,' she said.

'I intend to explore the study by seeking participation from interested farmers who live and work in what was known as the rural shire of Crows Nest on the evening of Friday April 3 at the CWA Hall in Crows Nest starting at 7pm.

'At the meeting they will be asked to fill out a short questionnaire and see a demonstration of live internet video-conferencing, which I hope to get their feedback and ideas on.

'It will only last a couple of hours and a special free supper will also be provided.'

With modern-day farmers facing more adversity than ever, Ms Bromley is hopeful that the internet counselling will give rural families an avenue in which to receive assistance.

'Farmers are under so much pressure. They are influenced by external sources such as the weather with droughts, government regulations and legislation, reduced finance from economic conditions that impact on commodity prices and interest rates and pressure from the environmental lobby.

'Then there are also the pressures from within their families such as limited time to accomplish tasks, different goals from family members for business direction and recruiting and retaining a paid workforce.'

The study is also a way in which Ms Bromley can contribute to the communities that have given her so much.

'I am still very much connected to the land, having lived and worked in rural communities for the past 40 years.

'I would like to now give something back to an industry and an environment that has supported me.'

For more information on the meeting in Crows Nest contact Ms Bromley on 4631 1993 or email [bromley@usq.edu.au](mailto:bromley@usq.edu.au).

**Media Contact:** Josh Ada, USQ Media, +61 7 4631 2559



Research student Kayleen Bromley



### USQ higher degree student presents paper at National Conference

USQ higher degree student, Ms Kayleen Bromley, recently presented her research paper, Strengthening Farmers through the Camera's Eye, at the National Men's Health Conference held in Newcastle last month.

Now in its eighth year, the national conference aims to support the improvement of male health and wellbeing in Australia.

Ms Bromley said this years conference brought together exciting and innovative programs, research and policy discussions from around Australia.

'Following the success of previous conferences, it is now becoming evident that men's health and wellbeing is an important factor in building stronger families and communities.

'One farmer commits suicide in Australia every four days, which is twice the national average,' Ms Bromley said.

'My research focuses on the mental health of the farming community, and at the moment I'm researching the possibility of offering on-line counselling to farmers in rural and remote Australia.'

Ms Bromley's research findings indicate that farmers are reluctant to use on-line technology until they experience talking to someone live through the internet.

'My current research looks at whether farmers, in what was previously known as the Crows Nest Shire, will access live counselling services by qualified social workers using a web camera in the privacy of their own home.'

Ms Bromley was able to present her research because of the assistance from the University's [Go WEST](#) Committee. Established in 2006, the committee provides support for female USQ students and professionals in the traditionally under represented discipline areas of [Science](#), [Engineering](#) and [Technology](#) (SET)

'The conference presented an opportunity to show case my ideas to other professionals and male participants from throughout Australia and to network with them and get valuable feedback.

'Research finds that women working in SET areas often find themselves in a 'chilly environment', unsupportive of their role and contribution. Of the 500 people present at the five day conference, less than 20 of these were women working to improve the health of our countries men. Due to Go West's support, I was privileged to be one of them.'

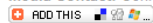
Ms Bromley was also invited to speak at the International Successes and Failures in Telehealth Conference held in Brisbane last month.



ICT Principal Manager Maggie Fryer worked closely with Kayleen Bromley

**Contact Details:**

**Media Contact:** Connie-Louise Rego, [USQ Media](#), +61 7 4631 2977 or 0400 025 429



## APPENDIX E3

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[USQ Home](#) > ... > [Media Releases](#) > [2009](#) > Go WEST marks a successful year

Search USQ

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### Go WEST marks a successful year

The project team of GO Women in Engineering, Science and Technology (Go WEST) celebrated the conclusion of a highly-successful year with colleagues, students and community members on December 11.


USQ female staff and students in the discipline areas of Engineering, Science (including Mathematics) and Technology were invited to the event. Local professionals and educators also attended, including participants in the 2009 inaugural Best of the WEST awards.

Technology researcher Kayleen Bromley spoke on the experience of presenting her research paper "Strengthening Farmers Through the Camera's Eye" to the National Men's Health Conference earlier this year.

Go WEST sponsored Kayleen to attend this conference, which was based in Newcastle.

Go WEST provides support for University staff, students and community educators and professionals in areas where women are traditionally under-represented.

The team's success has been recognised and honoured recently in the Queensland Government - Our Women, Our State Awards - and the USQ Equal Opportunity for Women Achievement Award.



Go WEST project team with Minister for Women, the Hon. Karen Struthers MP, at the Our Women Our State Awards

**Contact Details:**  
**Media Contact:** Madeleine Tiller, [USQ Media](#), +61 7 3470 1163 or 0400 025 429

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### **Special evening just for farmers:**

The Centre for Rural and Remote Area Health postgraduate student Kayleen Bromley is currently conducting research on farmers and internet counselling.

The purpose of the study is to determine whether farmers will access counselling services delivered by social workers using internet video conferencing in their own home. Kayleen intends to explore the study by seeking participation from interested farmers who live and work in what was known as the Crows Nest Shire to come along to an evening on the 3<sup>rd</sup> of April at the CWA hall in Crows Nest starting at 7 p.m sharp. Whilst there, they will be asked to fill out a short questionnaire, see a demonstration of live internet video-conferencing, have a go themselves if they wish and participate in a short forum on their thoughts and ideas about it. It will be a great evening and will only last a few hours. The special treat for the night is a very special free supper provided by published chef Sue Belfitt.

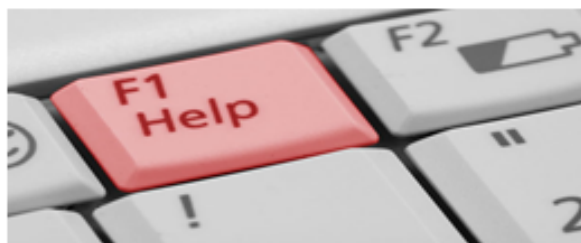
“One farmer in Australia commits suicide every four days: a shocking statistic. For the past 10 years I have been looking at the possibility of internet counselling in rural communities using webcams. I have already done a pilot study which shows it can be done”. Now with broadband and better programming some men say it is like talking to someone in the same room as you and you can do it from home.

Most farmers live and work on their property. It is a way of bringing services and live communication to the bush without disruption to productivity.

My question to farmers is a simple one.

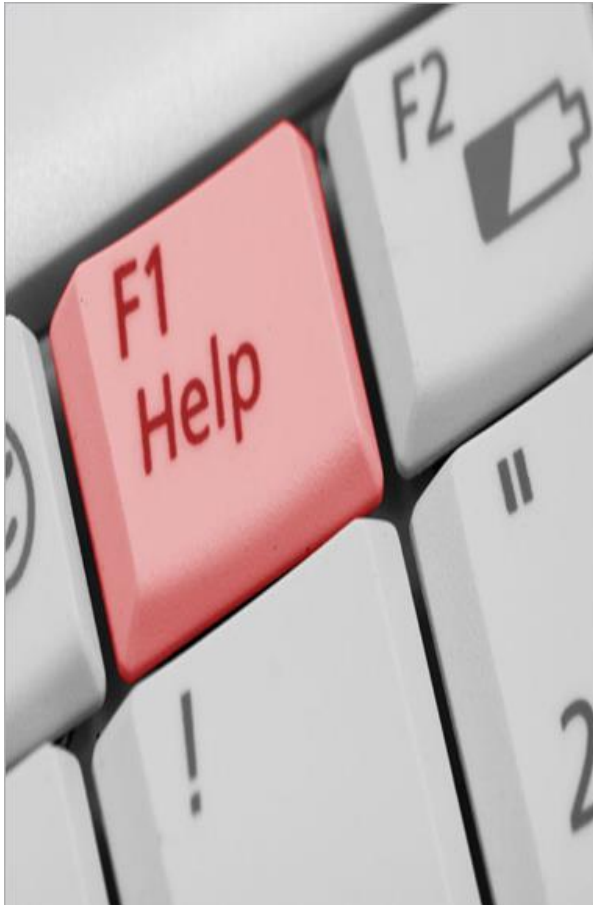
If the service was available in the privacy of your home, would you use it?

For more information contact Kayleen at USQ on 463 11993, mobile 0438177111 or [bromley@usq.edu.au](mailto:bromley@usq.edu.au)



This study is being conducted by a local USQ postgraduate student, help her, help our farmers.

<p><b>FARMERS WANTED</b></p> <p><b>Where?</b> Crows Nest CWA Hall</p> <p><b>When?</b> Friday 3<sup>rd</sup> April at 7p.m</p> <p><b>How Long?</b> An hour or two</p> <p><b>What for?</b> To view a demonstration of live video conferencing and discuss if farmers would use it as a tool to talk to a health professional, if a service was available from their home.</p> <p><b>Free</b> Supper by published chef Sue Belfitt</p> <p>Presented by USQ postgraduate student Kayleen Bromley ph:46311993 for more info</p>	<p><b>FARMERS WANTED</b></p> <p><b>Where?</b> Crows Nest CWA Hall</p> <p><b>When?</b> Friday 3<sup>rd</sup> April at 7p.m</p> <p><b>How Long?</b> An hour or two</p> <p><b>What for?</b> To view a demonstration of live video conferencing and discuss if farmers would use it as a tool to talk to a health professional, if a service was available from their home.</p> <p><b>Free</b> Supper by published chef Sue Belfitt</p> <p>Presented by USQ postgraduate student Kayleen Bromley ph:46311993 for more info</p>
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# FARMERS WANTED

**Where:**

**Crows Nest CWA Hall**

**When:**

**Friday 3rd April at 7p.m.**

**How long:**

**A couple of hours**

**What for:**

**To view a demonstration of internet video conferencing and discuss whether farmers would use it as a tool.**

**Free supper at 9.p.m.**

**Presented by USQ postgraduate research student Kayleen Bromley**



## APPENDIX F

### Questionnaire

Your participation in completing this survey is greatly appreciated.

It is completely anonymous. Your personal details are not required to complete this questionnaire.

#### Instructions:

Please complete the following questions by ticking the boxes you most agree with.

Please write your answer in your own words where additional information is required.

#### 1. Are you:

Male?

Female?

#### 2. How old are you?

15-24

25-44

45-64

65+

#### 3. How many hectares is your property?

<5

5-9

10-49

50-99

>100

**4. Which of the following is the principle produce from your farm?**

Beef

Dairy

Pigs

Poultry

Horticulture

Other

**5. Please describe what you think counselling is?**

---

---

---

**6. Who do people who live in what was previously known as the Crows Nest Shire go to see for counselling?**

---

---

---

**7. Have you or do you know of someone else who has previously had counselling?**

Yes

No

**8. What is your opinion of the usefulness of counselling services?**

Very Useful

Useful

Not useful

Comment: \_\_\_\_\_

---

---

**9. Do you use a computer at home?**

Yes

No

**10. Do you use internet facilities?**

Yes

No

**11. Which internet connection do you use?**

Dial-up

Broadband ADSL

Wireless

Satellite

**12. Would you use a camera in your own home to receive counselling from a social worker?**

Yes

No

Thank you for your time and effort 😊

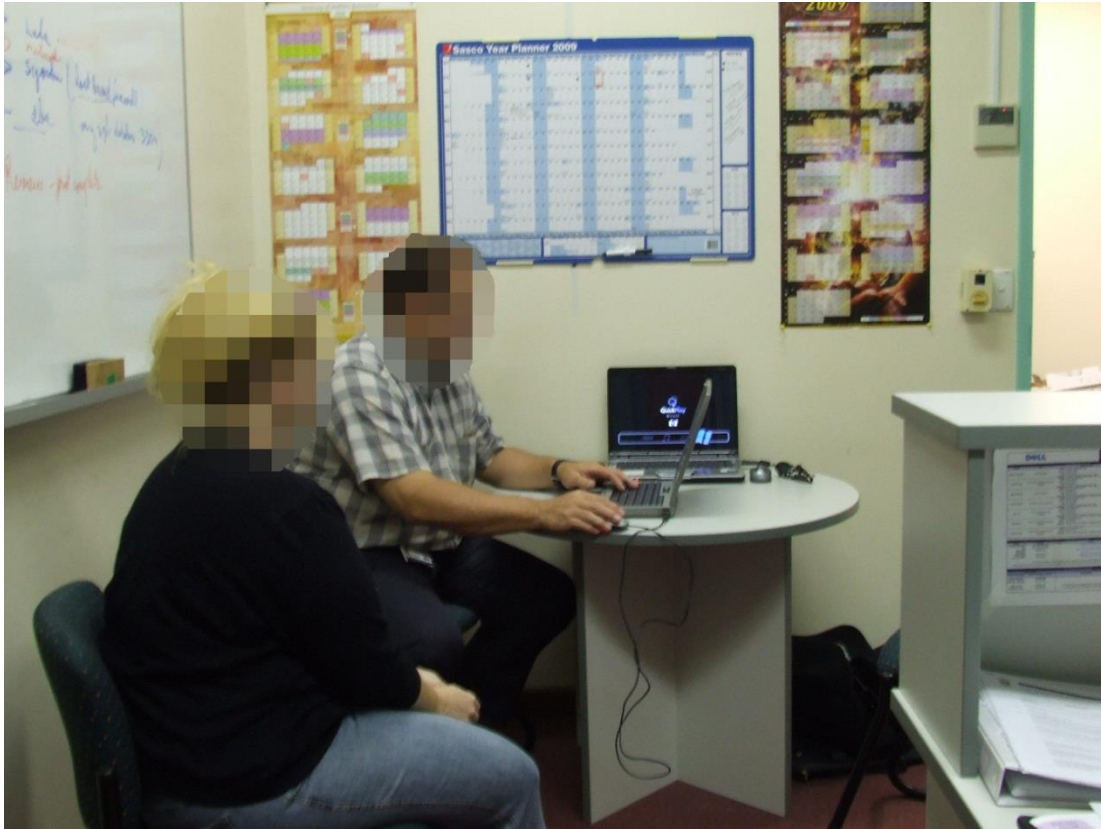
## APPENDIX G

### **Post Demonstration Audio Interview Questionnaire**

#### **Questions**

1. Prior to this demonstration, have you ever experienced talking to someone live through the internet?
2. Can you describe to me how you found this experience?
3. What did you enjoy about this experience?
4. What concerned you about this demonstration?
5. What technical difficulties did you experience in this demonstration?
6. Would you use counselling services, with Social Workers, using the internet in your own home if it were available?
7. Do you have any other comments or suggestions?

APPENDIX H



APPENDIX H1



APPENDIX H2

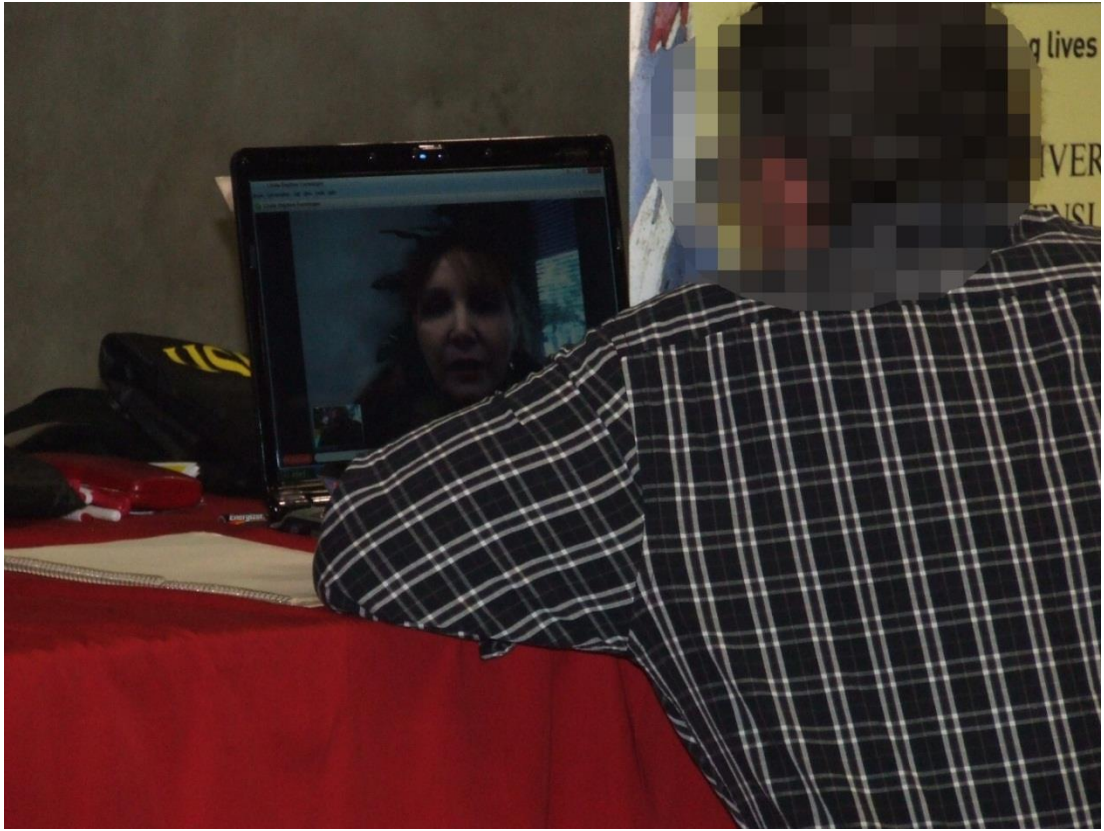


APPENDIX H3





APPENDIX H4



APPENDIX H5



APPENDIX H6



APPENDIX H7



APPENDIX H8



APPENDIX H9



APPENDIX H10



APPENDIX H11





## APPENDIX I

History of researchers SKYPE transmissions using USQ Connect passwords, detailing persons, date, time of call and call duration

### **First Trial between USQ ICT rooms using USQ Connect passwords with two laptops**

Direction	Person	Date	Time	Duration
From:	Troy Downs	25/2/09	11.49	00.29
To	Troy Downs	25/2/09	11.51	00:00
From	Troy Downs	25/2/09	11.53	missed call
To	Troy Downs	25/2/09	12.20	9.57
To	Troy Downs	25/2/09	12.47	01:08
To	Troy Downs	25/2/09	12:50	01.11
To	Troy Downs	25/2/09	12.52	03:37

### **Successful Handover from ICT to Linda (specialist generalist research demonstrator)**

Direction	Person	Date	Time	Duration
From	Linda Furminger	25/2/90	14:35	00:20

From	Linda Furminger	25/2/90	14:39	06:42
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**Second trial run from Crows Nest Memorial Park to USQ room G207 using USQ**

**Connect**

Direction	Person	Date	Time	Duration
To	Troy Downs	4/3/09	10:59	09:51
To	Troy Downs	4/3/09	11:26	16:01
To	Troy Downs	4/3/09	12:09	00:00
To	Troy Downs	4/3/09	12:16	00:00
To	Brian Kissell	4/3/09	12:16	00:00
To	Troy Downs	4/3/09	12:16	00:00
To	Troy Downs	4/3/09	12:16	00:15
To	Troy Downs	4/3/09	12:17	03:08
To	Troy Downs	4/3/09	15:05	00:00
To	Linda Furminger	4/3/09	15:06	00:00
To	Troy Downs	4/3/09	16:06	00:00
To	Troy Downs	4/3/09	15:08	00:00

To	Troy Downs	4/3/09	15:11	00:00
To	Troy Downs	4/3/09	15:12	“O.K no Problem”.

**Successful Handover to Linda Furminger**

Direction	Person	Date	Time	Duration
To	Linda Furminger	4/3/09	15:15	331:07:11

**Third Trial run between computers using USQ Connect passwords in G207**

Direction	Person	Date	Time	Duration
To	Linda Furminger	1/4/09	15:15	00:00
To	Linda Furminger	1/4/09	15:35	00:00

**Fourth Trial Run between computers using USQ connect passwords in G207**

Direction	Person	Date	Time	Duration
To	Linda Furminger	2/4/09	12:14	00:00
To	Linda Furminger	2/4/09	12:16	00:00
To	Linda Furminger	2/4/09	13:42	00:00
To	Linda Furminger	2/4/09	13:43	00:00

**Fifth Trial run between LAPTOP computers in G207 at USQ and laptop at  
Crows Nest Memorial Park and outside CWA rooms premises in Crows Nest**

Direction	Person	Date	Time	Duration
From	Linda Furminger	3/4/09	14:49	08:04
From	Linda Furminger	3/4/09	14:57	03:31
From	Linda Furminger	3/4/09	15:02	00:00
To	Linda Furminger	3/4/09	15:03	18:22

**Successful Transmission run from Crows Nest CWA rooms to USQ room G207**

Direction	Person	Date	Time	Duration
To	Linda Furminger	3/4/09	18:22	00:00
To	Linda Furminger	3/4/09	18:23	00:00
To	Linda Furminger	3/4/09	18:24	1:55:09

**Sixth Trial Run between computers using USQ connect using laptop at G207 to  
laptop at pavilion at Crows Nest Show site in Crows Nest**

Direction	Person	Date	Time	Duration
To	Linda Furminger	8/5/09	14:46	00:00
To	Linda Furminger	8/5/09	14:47	00:00
To	Linda Furminger	8/5/09	14:47	01:50
To	Linda Furminger	8/5/09	14:47	15:04
To	Linda Furminger	8/5/09	15:05	00:10
To	Linda Furminger	8/5/09	15:06	00:00
To	Linda Furminger	8/5/09	15:07	00:00
To	Linda Furminger	8/5/09	15:08	00:00
To	Linda Furminger	8/5/09	15:09	00:00
From	Linda Furminger	8/5/09	15:10	08:06
From	Linda Furminger	8/5/09	15:22	25:46

**Transmission from Crows Nest Show pavilion to USQ G207 using laptops and USQ passwords**

Direction	Person	Date	Time	Duration
From	Linda Furminger	9/5/09	09:58	20:24
From	Linda Furminger	9/5/09	10:19	00:00
To	Linda Furminger	9/5/09	10:20	00:00
To	Linda Furminger	9/5/09	10:20	missed call
From	Linda Furminger	9/5/09	10:21	00:05
From	Linda Furminger	9/5/09	10:22	01:03
From	Linda Furminger	9/5/09	10:34	04:05
From	Linda Furminger	9/5/09	10:39	28:06
From	Linda Furminger	9/5/09	11:08	35:15
From	Linda Furminger	9/5/09	11:46	missed call
From	Linda Furminger	9/5/09	11:47	missed call
From	Linda Furminger	9/5/09	11:48	missed call
From	Linda Furminger	9/5/09	11:59	missed call
To	Linda Furminger	9/5/09	12:02	59:28

From	Linda Furminger	9/5/09	13:03	1:25:09
To	Linda Furminger	9/5/09	14:33	00:00
To	Linda Furminger	9/5/09	14:34	00:00
To	Linda Furminger	9/5/09	14:34	00:00
To	Linda Furminger	9/5/09	14:34	00:00
To	Linda Furminger	9/5/09	14:34	00:00
From	Linda Furminger	9/5/09	14:34	00:15
From	Linda Furminger	9/5/09	14:38	25:39
From	Linda Furminger	9/5/09	15:06	00:00

**“Lost transmission again! will keep trying”**