

Implicit and explicit attitudes of health care workers and their injecting drug using clients with hepatitis C: is this related to treatment experiences?

Author:

Brener, Loren

Publication Date:

2007

DOI:

<https://doi.org/10.26190/unsworks/17549>

License:

<https://creativecommons.org/licenses/by-nc-nd/3.0/au/>

Link to license to see what you are allowed to do with this resource.

Downloaded from <http://hdl.handle.net/1959.4/40603> in <https://unsworks.unsw.edu.au> on 2024-04-27

**Implicit and explicit attitudes of health care
workers and their injecting drug using clients
with hepatitis C: is this related to treatment
experiences?**

Loren Brener

Master of Arts

A thesis submitted in fulfillment of the requirements for the degree of

Doctor of Philosophy

at the University of New South Wales

June 2007

PLEASE TYPE**THE UNIVERSITY OF NEW SOUTH WALES
Thesis/Dissertation Sheet**

Surname or Family name: Brener

First name: Loren

Other name/s: Loren

Abbreviation for degree as given in the University calendar: PhD

School: Psychology

Faculty: Science

Title: Ms

Abstract

People with hepatitis C (HCV) face stigma and discrimination because of the association of this disease with injecting drug use (IDU). Research has found that many instances of HCV-related discrimination occur in the health care sector. Health care workers' beliefs about their HCV positive clients are likely to influence how they relate to clients and their treatment delivery. This research assessed the implicit and explicit attitudes of both health care workers and their HCV positive injecting drug using (HCV+) clients toward each other and then established whether these affect the treatment experiences of health care workers and clients. The sample consisted of 60 health care workers (doctors and nurses), 120 HCV+ and 120 HCV- clients, recruited from the same treatment facility. Participants were given a series of attitude and treatment experiences measures to complete. Data illustrate that while health care workers' and HCV+ clients' explicit attitudes towards each other were positive, clients with HCV still rated their health care workers less highly and reported less satisfaction with their treatment than HCV- clients. Analyses also indicated that more conservative health care workers displayed greater prejudice toward their HCV+ clients because they believe that injecting drug use is controllable. This prejudice toward IDUs on the part of health care workers was associated with worry about the behaviour of IDU clients and this worry in turn predicted differences in treatment experiences reported by HCV+ and HCV- clients. These data support the contention that health care worker concerns, particularly those related to injecting drug use, underlie discriminatory treatment of people with HCV. Finally the research also addressed the impact of health care worker contact with HCV+ clients on their attitudes towards this group. Analysis revealed that while health care workers who have had more contact with people with HCV show more positive explicit attitudes, they also show less favourable implicit attitudes toward IDUs. This may reflect the difficulties and stresses associated in caring for IDUs and may provide insight into the hidden costs involved for health care workers working with a population that may be challenging and at times difficult to manage.

Declaration relating to disposition of project thesis/dissertation

I hereby grant to the University of New South Wales or its agents the right to archive and to make available my thesis or dissertation in whole or in part in the University libraries in all forms of media, now or here after known, subject to the provisions of the Copyright Act 1968. I retain all property rights, such as patent rights. I also retain the right to use in future works (such as articles or books) all or part of this thesis or dissertation.

I also authorise University Microfilms to use the 350 word abstract of my thesis in Dissertation Abstracts International (this is applicable to doctoral theses only).

.....
Signature.....
Witness.....
Date

The University recognises that there may be exceptional circumstances requiring restrictions on copying or conditions on use. Requests for restriction for a period of up to 2 years must be made in writing. Requests for a longer period of restriction may be considered in exceptional circumstances and require the approval of the Dean of Graduate Research.

FOR OFFICE USE ONLY

Date of completion of requirements for Award:

THIS SHEET IS TO BE GLUED TO THE INSIDE FRONT COVER OF THE THESIS

Originality Statement

I hereby declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been accepted for the award of any other degree or diploma at UNSW or at any other educational institution, except where due acknowledgement is made in the thesis. Any contribution made to the research by others, with whom I have worked at UNSW or elsewhere, is explicitly acknowledged in the thesis. I also declare that the intellectual content of this thesis is the product of my own work, except to the extent that assistance from others in the project's design and conception or in style, presentation and linguistic expression is acknowledged.

Signed.....

Acknowledgements

This has been a very long, sometimes challenging, and most definitely rewarding journey. There are many people to thank for their guidance, support and input during the past few years.

First and foremost I would like to thank my supervisors Bill von Hippel and Sue Kippax. Bill, as my primary supervisor, has been exceptional and has excelled as a supervisor. I would like to thank him for being constantly available to help and advise me, for providing ongoing support at all stages of the project and for meticulously reading through draft upon draft of each chapter. I am also most grateful to my co-supervisor Sue Kippax, who provided expert advice during the design of the measurements and during data collection. I would like to also thank her for reading and commenting on various drafts of this thesis.

The past few years have been challenging personally and professionally. Both my children were born while I was completing this PhD which only served to make me realise how much easier it is to do a PhD than to raise children! Kayla and Ethan are my two gorgeous sources of inspiration. To my late father who died during the course of this PhD, it is through your wisdom, guidance and encouragement that I even embarked on this journey in the first place and while you are no longer here physically, you are in my thoughts all the time. I would like to thank my mother for moving from South Africa to Australia to take care of myself and my children while I completed this degree. Finally, I would like to thank Steve for his enduring patience, unwavering support and for his constant faith in me.

This research has been supported by a National Health and Medical Research Council Public Health Postgraduate Scholarship ID no: 222922.

Abstract

People with hepatitis C (HCV) face stigma and discrimination because of the association of this disease with injecting drug use (IDU). Social research in this area consistently describes the negative experiences that people with HCV have in the health care sector. This is particularly worrying as many HCV positive people have regular contact with the health care system. Health care workers' beliefs about their HCV positive clients are likely to influence how they relate to clients and their treatment delivery. Injecting drug use is a highly stigmatised behaviour that evokes extremely negative feelings and associations. It is particularly stigmatised because it is often perceived as a 'controllable stigma', and thus the individual is to be blamed rather than pitied. To ensure that people with HCV are afforded good quality health care it is important to identify factors that are associated with attitudes towards people with HCV. This research assessed the implicit and explicit attitudes of both health care workers and their HCV positive IDU (HCV+) clients toward each other and then established whether these affect the treatment experiences of health care workers and clients. Hence this is the first controlled study to examine the inter-relationships among attitudes and experiences of health care workers and their HCV+ IDU clients. It is also the first study to match health care workers, HCV+ IDU clients and HCV negative (HCV-) non-IDU clients to a treatment facility in order to compare the experiences of these two different clients group at the same treatment service. The sample consisted of 60 medically trained health care workers (doctors and nurses), 120 HCV+ and 120 HCV- clients, recruited from the same treatment facility. Participants were given a series of attitude and treatment experiences measures to complete.

While this research showed that health care workers' and HCV+ clients' explicit attitudes towards each other were positive, clients with HCV still rated their health care workers less highly and reported less satisfaction with their treatment than HCV- clients. Because HCV+ and HCV- clients are matched to health care workers at the same facilities, this study illustrates that HCV+ clients report being treated differently to their HCV- counterparts. Analyses also indicated that more conservative health care workers displayed greater prejudice toward their HCV+ clients because they believe that injecting drug use is controllable. This prejudice toward IDUs on the part of health care workers was associated with worry about the behaviour of IDU clients and this worry in turn predicted differences in treatment experiences reported by HCV+ and HCV- clients. These data support the contention that health care worker concerns, particularly those related to injecting drug use, underlie discriminatory treatment of people with HCV. Finally the research also addressed the impact of health care worker contact with HCV+ clients on their attitudes towards this group. These data suggest that while health care workers who have had more contact with people with HCV show more positive explicit attitudes, they also show less favourable implicit attitudes toward IDUs. Hence this study has identified associations between greater contact with clients with HCV and health care worker implicit attitudes that are unusual, and further research is required to substantiate and explore these trends. This finding may reflect the difficulties and stresses associated with caring for IDUs and may provide insight into the hidden costs involved for health care workers working with a population that may be challenging and at times difficult to manage.

Table of Contents

Acknowledgements:	i
Abstract:	ii
List of Tables:	viii
List of Figures:	ix
List of Appendices:	x
CHAPTER 1- Hepatitis C: a public health epidemic	1
The hepatitis C virus	2
Treatment for hepatitis C	5
Hepatitis C in Australia	7
CHAPTER 2 – Hepatitis C related stigma and discrimination	13
The significance of perceiving a stigma as controllable	13
The personal cost of disclosing or not disclosing hepatitis	
C positive status	17
Health care workers attitudes and hepatitis C positive clients	19
Similarities in attitudes to HIV/AIDS and HCV	21
Attitudes and contact with hepatitis C positive clients	23
Negative attitudes and the impact on behaviour	25
Concluding remarks	34
CHAPTER 3 – The stigmatised group	36
The impact of being part of a stigmatised group	36

The implications of anticipating discrimination	39
HCV positive IDU clients and their health care workers	42
Concluding remarks	42
CHAPTER 4 – Outline of the research	45
Development and validation of scales	49
Method	50
Sample	50
Questionnaires	50
Results and discussion	50
Development of instruments for the main study	54
Health care workers: explicit attitude measures	54
Health care workers: implicit attitude measures	56
The Implicit Association Test	56
The Single Category Implicit Association Test (SC-IAT)	59
HCV positive and negative clients: explicit measures	61
HCV positive and negative clients: implicit measures	63
Pre-testing of instruments: health care workers	64
Method	64
Sample	64
Materials	64
Procedure	66
Results and discussion	66
Conclusion	69
Pre-testing of instruments: HCV positive IDU clients	70

Method	70
Sample	70
Materials	70
Procedure	71
Results and discussion	71
Conclusion	73
 CHAPTER 5 – The main study	 74
Method	74
Sample	74
Recruitment	74
Procedure	75
Results	77
Sample characteristics	77
Treatment scales: HCV+ and HCV- clients	79
Implicit and explicit (affective and cognitive) attitude and treatment measures and scales: health care workers	80
Explicit and implicit attitudes of health care workers towards their HCV+ IDU clients	83
Explicit and implicit attitudes of HCV+ IDU clients and HCV- clients toward their health care workers	84
Health care worker attitudes and contact with HCV+ clients	86
HCV+ IDU clients' attitudes towards their health care workers and health care worker contact with HCV+ clients	88

Health care workers' attitudes to HCV+ IDU clients and their impact on treatment	88
Supplementary analysis	92
Items not analysed	94
CHAPTER 6 – Discussion and conclusions	96
The development of scales to measure attitudes to IDU and HCV	96
Health care worker attitudes, client attitudes and the relationship to client treatment experiences	98
Conservatism, perceptions of controllability of IDU and behaviour of health care workers towards HCV+ IDU clients	101
Health care worker implicit and explicit attitudes and contact	103
HCV+ client attitudes and health care worker contact	108
Concluding Comments	109
References	111
Appendices	136

List of Tables

Table 1:	Correlations and reliabilities in the validation of scales	53
Table 2:	Level of education for HCV+ and HCV- samples	78
Table 3:	Major form of employment for HCV+ and HCV- samples	78
Table 4:	Reliability of Treatment Experiences Scale	79
Table 5:	Reliabilities of scales administered to health care workers	80
Table 6:	Differences among nurses and doctors	82
Table 7:	Correlations and partial correlation controlling for conservatism	87
Table 8:	Client attitudes and health care worker contact	88
Table 9:	Bivariate correlations: Health care workers' cognitive attitudes toward HCV+ IDU clients and treatment experiences of clients and health care workers	90

List of Figures

- Figure 1:** Hypothetical model mapping the relationship between health care workers' and HCV+ clients' attitudes toward each other and their treatment experiences 47
- Figure 2:** Model mapping the regression based bath analysis of health care workers' and HCV+ clients' attitudes toward each other and treatment experiences 91

List of Appendices

Appendix 1	Original and new scales used to develop measures for main study	136
Appendix 2	Scale validation study	157
Appendix 3	Scales and questionnaire used in pre-testing of instruments for health care workers	173
Appendix 4	Scales and questionnaire used in pre-testing of instruments for HCV positive clients	187
Appendix 5	Scales and questionnaire for health care workers used in the main study	198
Appendix 6	Scales and questionnaire for HCV positive and HCV negative clients used in the main study	210
Appendix 7	Recruitment material	221
Appendix 8	Treatment experience items	225
Appendix 9	Health care worker worry items	228

CHAPTER 1- Hepatitis C: a public health epidemic

Hepatitis C (HCV) is the second most common notifiable infection in Australia. By the end of 2004 it was estimated that there were 260 000 people infected with HCV. Recently published population surveillance data shows a decline in reported HCV cases from 16 000 in 2002 to a current annual rate of 9 700 new infections in 2004 (ANCAHRD Hepatitis C Subcommittee, 2002; Dore, 2003; National Centre in Epidemiology and Clinical Research, 2006). Despite this decrease in incident rates, the incidence and prevalence of the disease in Australia remains high and HCV is an important public health concern, as is the provision of health care to this group of people. Although people with HCV come from varied backgrounds and have different experiences of contracting and living with the virus, the overwhelming majority have acquired it through injecting drug use. Health care workers face many challenges in providing care to this population. The association between HCV infection and injecting drug use has been found to lead to stigmatisation and discrimination of people with HCV (Anti-Discrimination Board of New South Wales, 2001). Research suggests that the way health care workers relate to their illicit drug using clients, many of whom have HCV, is an important factor in the quality of services provided (Caplehorn, Hartel & Irwig, 1997; Reid, Crofts & Hocking, 2000). How clients view their treatment and their health care provider will also affect the quality of care and treatment outcomes. The attitudes of both health care workers and their HCV positive clients are likely to be shaped and influenced by the stigmatised nature of the disease and its association with injecting drug use.

This research aims to examine the health care experiences of people who have HCV acquired from injecting drug use, and assess how the implicit and explicit attitudes of health care workers towards their HCV positive clients and the attitudes of HCV positive clients toward their health care workers may affect the health care and treatment experiences for people with HCV.

The hepatitis C virus

HCV was identified in 1989 and prior to this time was referred to as non A, non B hepatitis. Globally it is estimated that there are 170 million people who are chronically infected with HCV and 3-4 million new infections occur annually. HCV is responsible for most acute hepatitis, cirrhosis of the liver and liver cancer and causes 8 000 to 10 000 deaths per year (Price & Goyette, 2003; WHO, 2000). Cirrhosis of the liver related to HCV is the most common worldwide cause of liver transplantations (El-Serag & Masson, 1999). It is estimated that there will be an increase in the numbers of people currently asymptomatic who will progress to liver cirrhosis and hepatocellular carcinoma and that HCV related deaths will rise dramatically (Esteban, 2003).

HCV is a blood borne virus that affects the liver and transmission is through blood-to-blood contact with someone who is already infected (Department of Health and Aged Care, 2000). Prior to 1990 up to 10% of new infections resulted from blood transfusions or receipt of unscreened of blood products. The major vector of transmission of HCV in Australia is through injecting drug use and over 91% of new infections are acquired through this means (ANCAHRD Hepatitis C Subcommittee, 2002). Tattooing and skin

piercing with non-sterile equipment and needle stick injuries are other less frequent routes of transmission. Sharing toothbrushes or razors have also been identified as providing conditions sufficient for transmission of the virus. Blood products received from overseas or from unsterile equipment used in countries such as Egypt during mass vaccine campaigns also account for a small percentage of cases of HCV found in Australia. Vertical transmission – from mother to child – is low and occurs in about 5% of cases (Australian Society for HIV Medicine, 2003). Sexual transmission is thought to occur infrequently, but only when blood is present such as in the presence of lesions or menstrual blood (Sladden, Hickey, Dunn, & Beard, 1997). HCV cannot be contracted through social contact such as hugging, kissing or coughing or through sharing of food, cups, plates and eating utensils (Department of Health and Aged Care, 2000).

Hepatitis means inflammation of the liver and is most commonly caused by a viral infection. Long-term inflammation of the liver can cause scar tissue called fibrosis. Extensive scarring in turn is known as cirrhosis of the liver and can lead to liver cancer. Approximately 25% of people who contract hepatitis C will clear the virus within 2-6 months of becoming infected. These people will still continue to carry antibodies to the virus. The other 75% of people will go on to develop a chronic infection. At the acute infection stage the most common symptoms are jaundice and fatigue. However the majority of cases, between 60-70% will be asymptomatic even if they develop chronic infection (Batey, 2006; WHO, 2000). Many people who are infected do not know they have HCV until decades later. Some people will develop symptoms of liver disease such as jaundice, tiredness, lethargy, nausea, depression and aches and pains in muscles and

joints. The most common symptoms of HCV are liver failure and portal hypertension (Price & Goyette, 2003). After twenty years 5- 10% of people with chronic HCV will develop cirrhosis and between 1-5% will develop liver cancer over a period of twenty to thirty years (Department of Health and Aging, 2001). The progression of the disease is variable and is affected by various factors such as alcohol intake or if there is coinfection with HIV or hepatitis B virus. A model estimating the development of HCV in Australia suggests that the current estimated number of people in Australia living with cirrhosis and with liver cancer will more than double by the year 2010, and treble by 2020 (ANCAHRD Hepatitis C Subcommittee, 2002; Law, 1999).

Additionally, while many with HCV will not progress to advanced liver disease, their quality of life will be markedly affected (Foster, 1999; Foster, Goldin & Thomas, 1998). Clinical studies indicate that HCV affects the mental, physical and social functioning resulting in a deterioration in general well-being and reduced ability to fulfil previous roles and obligations (Forton, Thomas, Murphy, Allsop, Foster, Main, Wesnes, Taylor-Robinson, 2002; Forton, Taylor-Robinson & Thomas, 2003; Sladden, Hickey, Dunn & Beard, 1998). People with HCV show increased depression, anxiety, fatigue and reduced energy (Hilsabeck & Malek-Ahmadi, 2004; Kraus, Schafer, Csef, Scheurlen & Faller, 2000; McDonald, Jayasuriya, Bindley, Gonsalvez & Gluseska, 2002; Miller, Hiller & Shaw, 2001). Levels of fatigue that people experience have been found to correlate highly with psychological variables especially severity of depression and appears unrelated to the extent of liver disease (Dwight, Kowdley, Russo, Ciechanowski, Larson & Katon, 2000; McDonald et al, 2002). Other symptoms identified with the disease

include nausea, muscle aches, joint pain, abdominal discomfort and headaches (Sladden et al, 1997). Research also indicates that HCV positive people suffer higher levels of psychological stress and psychiatric symptomatology than people with other chronic illnesses (Johnson, Fisher, Fenaughty & Theno, 1998). Grassi, Satriano, Serra, Biancosino, Zotos, Sighinolfi and Ghinelli (2002), found that HCV positive people were more likely to show higher scores on clinical dimensions of psychological stress and on depression, hopelessness and preoccupation with the illness; and lower scores on fighting spirit than people who were HIV positive. Similarly Foster et al (1998) found that HCV positive people had substantial reductions in mental and physical health related functioning compared with people with hepatitis B. Reduced quality of life appears unrelated to the disease activity (Forton et al, 2002; Ware, Bayliss, Mannocchia & Davis, 1999).

Treatment for hepatitis C

As yet there is no vaccine for hepatitis C, however treatment is available (Gowans, 2000). This treatment aims to reduce liver inflammation and cell damage, thereby preventing cirrhosis, liver cancer and liver related death (Imazeki, Yokosuka, Fukai & Saisho, 2003; Price & Goyette, 2003). Treatment is available through the Highly Specialised Drugs Program that is part of the National Health Act. Requirements for facilities to prescribe combination therapy include that the facility must have an outpatient liver clinic, be a tertiary centre, have a nurse educator or counsellor present and that patients are able to have on-going and immediate access to medical care and advice. According to the National Hepatitis C Strategy 1999-2000 to 2003-20004, while prescribing facilities need

to adhere to these stringent requirements, the consequences may be increased pressure on the facilities at public hospitals, increased waiting time to access facilities and limited resources outside urban centres (Department of Health and Aged Care, 2000).

Standard combination therapy used to involve a 6-12 month treatment regimen consisting of interferon injections 3 times per week and ribavirin capsules taken twice daily. With the new pegylated interferon treatment, injections are reduced to once a week. In Australia subsidised combination therapy is available providing the client meets certain criteria (HepLine Fact Sheet, 2003a). Only 1 500- 2000 people start on anti therapy per year in Australia, even though there are over 160 000 estimated to be chronic HCV suffers (Dore, 2003). Although it has become easier to access treatment in Australia, the toxicity of the drugs and duration of treatment (24 weeks or 48 weeks) act as strong barriers to treatment uptake (Hopwood & Treloar, 2005). Few studies have been conducted into the effectiveness of HCV treatment for those who are still injecting drugs, available data suggest that outcomes are positive (Backmund, Meyer, Von Zielonka & Eichenlaub, 2001; Sylvestre, 2003). The little available research also indicates that reinfection is not higher among drug users who clear the virus compared with those who do not use drugs, as long as those who use drugs continue to engage in harm minimisation practices (Edlin, 2002). Despite this in many countries HCV treatment will not be given until the person is substance-free (Taylor, 2001). In Australia being a current injecting drug user is no longer an exclusion criteria for treatment, however very few IDUs with HCV appear to access treatment (Doab, Treloar & Dore, 2003). One reason for this may be that people who inject drugs may not be aware that they can access

treatment. A study by Doab, Treloar & Dore (2005), they found that most current IDUs believed that their injecting drug use was an exclusion factor for HCV treatment.

Although HCV treatment is correlated with a decrease in psychosocial and psychiatric problems related to HCV (Foster, 1999), interferon treatment itself has been associated with various side effects (Fontana, Schwartz, Gebremariam, Lok, Moyer, 2002). These include flu like symptoms, suicidal ideation and suicide, fatigue, decreased libido, vomiting, anxiety, anorexia, severe depression, paranoia, hair loss, rash, cough, cognitive dysfunction and thyroid disease (Australian Society for HIV Medicine, 2003; Bonaccorso, Marino, Biondi, Grimaldi, Ippoliti & Maes, 2002; Hosoda, Takimura, Shibayama, Kanamura, Ikeda & Kumada, 2000; Price & Goyette, 2003; Zdilar, Franco-Bronson, Buchler, Locala, Younossi, 2000). Prevalence of psychiatric problems among IDUs has been found to be high and this may be exacerbated by HCV treatment (Fireman, 2003; Hilsabeck & Malek-Ahmadi, 2004; Loftis & Hauser, 2003). The side effects are often the main reason for discontinuation of treatment and disappear when treatment is stopped (McHutchison, Gordon, Schiff, Shiffman, Lee, Rustgi, Goodman, Ling, Cort & Albrecht, 1998; Monji, Yoshida, Tashiro, Hayashi and Tashiro; 1998). Research suggests that those with a pre-existing psychiatric illness or with depression can be safely treated as long as they are appropriately monitored (Loftis & Hauser, 2003).

Hepatitis C in Australia

HCV infection has been a notifiable disease in all States and Territories since 1995.

Notifications of HCV increased rapidly during 1995-2000 and in the period 1999-2000,

HCV notifications reached 160 000. Of these, 65% are amongst people aged 20-39 years, and 35% are female (Department of Health and Aging, 2002a). Currently HCV is the second most frequent notifiable infection in Australia. Of the approximately 260 000 people exposed to HCV in Australia, it is estimated that about 65 000 have cleared the disease, 153 000 have chronic HCV and early stage liver disease, 33 000 had moderate stage liver disease and a further 8 100 has developed liver cirrhosis as a result of their HCV (National Centre in HIV Epidemiology and Clinical Research, 2005).

HCV prevalence among injecting drug users (IDUs) is estimated to be between 54%-56% (Zhou, Buddle, Wodak, Dore, Kaldor & MacDonald, 2003). The incidence rate among people who inject drugs is estimated at 18 infections a year per 100 people and this is even higher among people aged less than 20 years and among some groups such as prison populations and populations in other custodial settings. Among people attending Needle and Syringe Programs (NSPs), HCV prevalence was about 26% (National Centre in HIV Epidemiology and Clinical Research, 2005). High HCV prevalence rates among IDUs is related to two factors – the pre-existence of a pool of infection among this population prior to the implementation of harm reduction measures and the infectious nature of HCV compared with HIV (Law & Batey, 2003; Wodak & Crofts, 1996). It appears that the prevalence of HCV among IDUs in Australia has been high since 1971 as compared with HIV, which was only present from 1982 and its spread among illicit drug users has been contained (Crofts, 2001; Crofts, Caruana & Kerger, 2000). HCV is more easily transmitted through smaller quantities of blood than HIV. It is not just the sharing of needles but other injecting equipment such as spoons, swabs, filters, cookers and

tourniquets that can lead to infection. Surfaces used for injecting can also become contaminated (Crofts, Aitken & Kaldor, 1999; Crofts, et al, 2000; Diaz, Des Jarlais, Vlahov, Perlis, Edwards, Friedman, Rockwell, Hoover, Williams & Monterroso, 2001; Green, Mohsen, Mckendrick, Dawes, Prakasam, Walberg & Schmid, 2001; Hagan, Thiede, Weiss, Hopkins, Duchin, Alexander, 2001).

Although the incidence and prevalence of HCV in Australia is far greater than HIV, public health initiatives have not been nearly as concentrated or effective (Wodak, 1997). As noted, this is related to both the pre-existing high prevalence of HCV prior to the identification of the disease, as well as the difficulties associated with containing the spread of HCV compared with HIV. Messages to reduce the spread of HIV, such as not sharing needles and syringes, have not proved as effective with HCV (Crofts et al, 2000). The prevalence of injecting drug use has also doubled in the last ten years and this places a burden on existing needle and syringe facilities (Dore, 2003). Recent studies on sharing behaviour among illicit drug users suggest a decline in sharing of needles and syringes, however sharing of other injecting equipment (cookers, cotton, spoons, filters etc) remains common (Brunton, Kemp, Raynel, Harte & Baker, 2000; Gossop, Griffiths, Powis, Williamson, Fountain & Strang, 1997; Heimer, Clair, Grau, Bluthenthal, Marshall & Singer, 2002; Hunter, Stimson, Judd, Jones & Hickman, 2000). Additionally Heimer et al (2002) found that among their study participants (493 inner city injectors in three US neighbourhoods), knowledge of HCV risk and health implications was much lower than similar knowledge of HIV. Stein, Maksad and Clarke (2001) in their study of 306 former injecting drug users in the U.S. found that there were gaps in the knowledge of IDUs

about the health related consequences and disease progression of HCV. Findings from a study by Cook et al (2001) also indicate that drug users lack knowledge about HCV transmission. In their study of 665 injectors in the United Kingdom, they found that 38% of participants shared injecting paraphernalia such as spoons and filters, and did not perceive this as risky behaviour. A recent study on HCV diagnosis, disclosure and discrimination conducted on a sample of 504 HCV positive people in New South Wales also illustrated that participants were not knowledgeable about HCV risk behaviours and the means of HCV transmission (Hopwood & Treloar, 2003).

Effectiveness of prevention strategies is also related to pressure from lobby groups demanding implementation of such strategies. HCV in Australia had not received a policy response comparable to that engendered by HIV (Hulse, 1997). In the case of HIV, the gay community constituted a cohesive political group already organised to fight against social injustice and whose advocacy ensured a speedy and successful response to this epidemic (Newmeyer, 2002). In contrast, there is no cohesive HCV community and injecting drug users may have little else in common. Many may have already stopped using drugs years ago, or only ever used experimentally, while there are those who still continue to inject (Krug, 1995). With HCV disease onset happens at different stages of a person's life, and some may experience severe symptoms related to HCV while others experience nothing or only mild symptomatology. Those who are young and just embarking on an injecting drug using career cannot identify with a chronic illness caused by HCV (Newmeyer, 2002). The diversity of this group mitigates against cohesive lobbying for effective intervention (Mackdady, Lennings & Lennings, 2000).

Additionally injecting drug use is an illegal activity and those engaged in it are perceived to exist on the margins of society. Little concern is afforded those involved in such illegal activities. Pejorative attitudes towards IDUs have even been blamed for the lack of a cohesive HCV prevention campaign. An additional reason that government has been slow in its response to this virus is that there has been little concern for cross-over of the virus from IDUs into mainstream society (Hulse, 1997).

More recently increased government initiatives around HCV have seen the establishment of the Australian National Council on AIDS, Hepatitis C and Related Diseases and the implementation of the National Hepatitis C strategy 1999-2000 and 2003 – 2004 and its follow up the National Hepatitis C Strategy 2005-2008. These strategies are designed to ensure the health and wellbeing of all Australians in relation to the transmission of and infection with HCV. They aim to establish guidelines to ensure a reduction in the transmission of HCV and to act in ways to minimise the public health, personal and social costs of HCV on the individual and within communities (Department of Health and Aged Care, 2000; 2005).

While HCV does not have as serious morbidity and mortality implications as HIV, because of the large numbers infected and the long term nature and progression of the disease, the health and economic costs to Australia continue to be considerable (Brown & Crofts; 1998; Shiell & Law, 2001; Wodak, 1997). HCV notifications have increased from 11 000 per year in 1997 to 16 000 per year in 2001, a rise of 45% over 4 years, with a recently reported decrease to 9 700 per annum in 2004 (ANCAHRD Hepatitis C

Subcommittee, 2002; National Centre in Epidemiology and Clinical Research, 2006).

Despite this decline in incidence, the numbers infected are still high, and this has serious public health and economic implications. Given the number of people infected, over 260 000, more and more health care workers will come into contact with people who are HCV positive. Their response to these clients is likely to affect on access to treatment, treatment experiences and on the quality of care afforded to this population.

CHAPTER 2 – Hepatitis C related stigma and discrimination

HCV is an illness that attracts a large amount of stigma and discrimination because of its association with injecting drug use. Acknowledging this fact is a fundamental aspect of understanding the experiences of people living with the disease (Anti-Discrimination Board of NSW, 2001; Hopwood & Kippax, 2001). Goffman (1963) defined stigma as ‘an attribute that is deeply discrediting’. According to Goffman (1963) stigma can be a physical mark identifying a group or a behaviour peculiar to a particular group. It is this negatively evaluated attribute that defines the social interaction with that group (Crocker, Major & Steele, 1998). The result is a process of global devaluation of members of a group who possesses this attribute. The social identity of members of this group becomes spoiled and their social interaction is viewed as flawed (Goffman, 1963). As the stigmatised group deviates from what is considered the norm, society acts in ways to control or isolate them. Stigmatised people are likely to be devalued and socially distanced. They are labelled as different or other and structures are set in place to protect the majority from the deviance (Gilmore, 1996; Gilmore & Somerville, 1994).

The significance of perceiving a stigma as controllable

Injecting drug use is one of the most stigmatised behaviours in the developed world and evokes extremely negative feelings (Capitanio & Herek, 1999). IDUs with HCV face stigma on two fronts, involvement in an illegal activity and infection with a blood borne virus (Lee, Kochman & Ssekema, 2002). According to Goffman (1963)

injecting drug use is considered to be a blemish of individual character and is associated with immoral conduct. When a person becomes infected with HCV, they may be perceived to also suffer from a second of Goffman's (1963) identified stigma, abomination of the body. Hence IDUs are believed to pose a threat or danger to society both as criminals and junkies, and as carriers of contagion (Frable, 1993).

The association of the stigma (injecting drug use) with an infectious disease (HCV) increases dislike for this group. HCV is associated with an illegal and deviant activity viewed as acquired through the 'immoral' behaviour of the individual (Fife & Wright, 2000). The stigma attributed to HCV in terms of its association with injecting drug use is illustrated in that people with HCV are often assumed to be IDUs even though some may have acquired HCV via other routes, ie contaminated blood products prior to 1990, tattooing and skin piercings etc (cf Herek, 1999). Day, Ross and Dolan (2003) conducted a study to assess whether perceived discrimination was associated with injecting drug use or HCV among a sample of HCV positive IDU. Participants reported that most instances of discrimination were felt to be related to their drug use rather than their HCV status. In a paper discussing HIV/AIDs and stigma, Herek (1999:1110) states that '*...the disease becomes a vehicle for expressing a variety of attitudes, especially attitudes toward the group perceived to be at risk for AIDS and the behaviours that transmit HIV.*' Similarly with HCV, the social meaning attributed to this disease most likely acquired through an illegal activity encourages the expression of negative attitudes towards people with HCV. In a study on attitudes towards injecting drug users and AIDs-related stigma by Capitanio and Herek (1999) the authors found that feelings towards IDUs were the most negative of all groups, and negative attitudes towards IDUs was related to higher AIDs stigma scores.

Stereotyping, prejudice and discrimination are three different aspects of the same category-based response. The stereotype is the cognitive component that may result in prejudice, the affective component, which in turn may finally lead to discrimination, the behavioural component (Gilmore & Somerville, 1994; Fiske, 1998). Stigmatised groups are often stereotyped especially in the mass media (Crocker et al, 1998).

People who inject drugs are portrayed in the media as ‘junkies’ who inject in dark alleys and pollute mainstream society with their ‘chaotic’ behaviour and drug related illnesses. Any member of this group becomes associated with such negative imagery (Jones, 1997). The process of stereotyping of IDUs may lead to negative attitudes towards them and the belief that they have brought diseases such as HCV upon themselves (Krug, 1997). One way of implementing social control over people who choose to engage in a behaviour that is not condoned by the majority is to make that behaviour illegal (Gilmore, 1996). As injecting drug use is an illegal activity, injecting drug users are thus considered criminals. This makes it easier to socially vilify and isolate them. Targets of prejudice and discrimination are very often marginalised (Jones, 1997). The impact of such marginalisation is to exclude people with HCV from accessing mainstream treatment facilities (Gilmore, 1996; Gilmore & Somerville, 1994). Access to treatment is laden with value judgements whereby people who acquired HCV via infected blood products are seen as deserving of treatment and those who acquired it via injecting drug use are seen as ‘non-deserving’ (Taylor, 2001: 54).

Frable (1993) notes that there are dimensions of marginality where some groups are viewed as more socially stigmatised than others. Injecting drug use is highly socially

stigmatised because the stigmatising condition may be perceived as a ‘controllable stigma’. As such IDUs are believed to be responsible for the situation giving rise to the stigma and termination of injecting behaviour would put an end to the stigma (Goffman, 1963; Whitley, 1990). Those who are perceived to have control over their stigmatising condition face even more rejection and dislike than those for whom the stigma is uncontrollable (Crocker, Major & Steele, 1998). Studies such as those by Hebl and Kleck (2002) and Bordier and Drehmer (1986) support this conclusion.

Hebl and Kleck (2002) designed a study manipulating type of stigma and controllability to assess the link between negative perceptions of a stigmatised condition and perceptions of the controllability of that stigma. Participants were told that job applicants were either obese or physically disabled and for each the stigma could either have been avoided - that obesity was attributed to overeating and physical disability attributed to a decision not to have urgent surgery; or could not be avoided – obesity was due to a thyroid problem and physical disability a result of a medical mistake. They found that the type of stigma influenced findings substantially less than the perceived controllability of the stigma. Job candidates who were perceived to have a stigma that was controllable were less likely to be perceived favourably by the interviewer, were less likely to be hired, were more likely to be perceived as not having the skills for the job and were less liked. Similarly, Bordier and Drehmer (1986) explored hiring recommendations involving people with a disability. Prospective applicants either suffered from paraplegia or a history of drug dependency. Participants were asked to rate applicants in terms of their suitability for a job. Findings from the study indicate that participants’ hiring decisions were influenced by both the type and the cause of the disability. The paraplegic applicant

was evaluated more favourably than the applicant with drug dependency. However, how the person sustained the injury was viewed as even more important than the type of disability. Those whose disability was attributed to internal factors for both the paraplegia and the drug dependency conditions were rated more negatively than those to whom external attributions were cited for their disability. Many people with HCV are perceived to have brought the disease on themselves through injecting drugs. These findings further illustrate that the perceptions of how the disease is acquired, or whether the stigma is controllable, has implications for the way in which those with the illness are viewed. When a disability or illness is believed to be caused by the person, outcomes are less favourable than when the person is seen as having no control over what has happened to them.

The personal cost of disclosing or not disclosing hepatitis C positive status

Injecting drug use can be considered a 'concealable stigma', but when a person is diagnosed with HCV, it may be difficult to keep their injecting drug use hidden (Goffman, 1963). The transition from being able to conceal the stigma to making it visible may prevent people from disclosing their HCV status. Those who choose to disclose their status may face more overt and blatant discrimination that, in turn, could lead to increased social isolation (Department of Health & Aged Care, 2000; Krug, 1997). Incidents of breaches of confidentiality, social ostracism, discrimination in the work place, demotion/redundancy or termination from work have been reported following disclosure of HCV status (Crofts, Louie & Loff, 1997; Hopwood & Treloar, 2003; Taylor, 2001).

Disclosure of one's HCV status raises issues about a past behaviour. It may require reconciling a current self with one abandoned many years ago (Krug, 1995). Research suggests that the taint from a previously performed stigmatised behaviour lingers even if the person no longer engages in the behaviour (Rodin & Price, 1995). Telling people about a positive HCV status may affect relationships with other people and creates the possibility of personal or social rejection (Dunne & Quayle, 2002; Hepworth & Krug, 1999).

While non-disclosure of a stigma may have immediate short-term benefits for the protection of an individual's social identity, the long-term consequences of non-disclosure may be more damaging (Smart & Wegner, 1999). Continuing to try and conceal a stigma is also very stressful. People with conspicuous stigmas focus on managing an already spoiled interaction, while those who try to keep their stigma concealed attempt to keep the interaction from being spoiled (Fribley, Blackstone & Scherbaum, 1990). Smart & Wegner (1999) argue that trying to conceal a stigma especially in situations where the stigma is relevant may be extremely mentally taxing. Their findings show that participants who concealed their stigmatised condition became totally preoccupied with the control of thoughts related to that stigma to the detriment of other areas of performance. Fribley, Platt and Hoey (1998) found that compared to those with a visible stigma, those with concealable stigmas had lower self-esteem and reported more negative affect. In a study by Glacken, Kernohan and Coates (2001) some of their participants chose not to disclose their HCV status for fear of stigmatisation. These participants reported a tremendous personal cost of non-disclosure as they were unable to discuss issues related to their HCV with others, and felt as though they were leading double lives. Additionally fear

of disclosure can also result in a lack of access to appropriate medical treatment and information about the disease (Hepworth & Krug, 1999).

Health care workers attitudes and hepatitis C positive clients

One factor identified as an essential component of the National Hepatitis C Strategy 1999-2000 to 2003-2004 and 2005-2008 is preventing discrimination of people with HCV and reducing stigma and isolation associated with the disease (Department of Health and Aged Care, 2000 & 2005). This is reiterated in a review of the original National Hepatitis C strategy 1999-2000 and 2003-2004 (Levy, Baum & Thomas, 2002). This review stresses that all state governments give priority to ameliorating hepatitis C related discrimination and that national government should embark on a program to increase public knowledge of HCV and reduce the stigma associated with the HCV.

While increased attention is being paid to the stigmatisation and discrimination of people with HCV, far more research into the impact of HCV-related discrimination within various settings, especially health care, is required (Hopwood & Southgate, 2003). Research suggests that staff attitudes are an important factor in the quality of care that is provided to IDUs, many of whom have HCV (Caplehorn et al, 1997; Humphreys, Noke & Moos, 1996; Reid et al, 2000). In a study on staff beliefs about addiction treatment, Forman, Bovasso and Woody (2001:7) highlight the importance of staff attitudes in determining treatment effectiveness and outcomes and note that a better understanding of this process is required. *'Differences in staff attitudes may result in differential outcomes that could attenuate the overall effectiveness of treatment innovations. The identification of how staff attitudes influence outcomes is*

important because it may point toward factors that may affect treatment

effectiveness.' Despite this, Grosenick and Hatmaker (2000) who undertook a review of medical literature examining the impact of staff attitudes on outcomes for people undergoing substance use treatment, found that very few studies even mentioned staff in the treatment process.

Unfortunately, prejudice and discrimination appears to be common amongst the very people who provide care to those with HCV, members of the health care profession (Anti-Discrimination Board of NSW, 2001; Hopwood, Treloar & Bryant, 2006; Taylor, 2001). As research illustrates, these prejudicial attitudes of health care workers towards their HCV positive clients are likely to influence their treatment of their clients with HCV. In a study assessing case histories of people with HCV, Crofts et al (1997) found that the most negative instances of discrimination faced by individuals occurred in health care settings. A recent study conducted among HCV positive women in Victoria and the ACT, found that nearly half of the women reported that they had experienced negative treatment from a health care professional (Gifford, O'Brien, Bammer, Banwell & Stooove, 2003). The report from the Anti-Discrimination Board of NSW (2001) and recent 3D project which looked at the experiences of diagnosis, disclosure and discrimination of people living with HCV in NSW (Hopwood & Treloar, 2003) confirm these findings. These documents outline discriminatory practices by general practitioners, nurses, dentists and other health care workers justified as correct infection control procedures. Some of the incidents reported include placing special infection control signs outside HCV positive patients hospital room, hasty discharge from hospital so that staff do not have to work with an HCV positive patient, unwillingness by staff to perform surgical or dental procedures

on HCV patients. In the study by Day et al (2003) discrimination was reported by 22% of their IDUs with HCV. Of the 25 incidents of discrimination that occurred in a health care setting, 13 of these resulted in the service being refused to the client.

In this context it should be noted that some of the worries that health care workers have about their IDU clients with HCV may be genuine concerns. For example, for clients who are still injecting drugs adherence rates to treatment regimens are typically lower than for those clients who have never injected or no longer inject drugs (Aloisi, Arici, Balzano, Noto, Piscopo, Filice, Menichetti, Monforte, Ippolito & Girardi, 2002; Clarke, Delamere, McCullough, Hopkins, Bergin & Mulcahy, 2003; Sylvestre, Litwin, Clements & Gourevitch, 2005). In this instance health care workers may offer IDUs with HCV different treatment to other clients because of reasonable concerns. Other literature has noted lifestyle issues associated with injecting drug use that might make it more difficult for health care workers to work with this population, for example comorbid psychiatric diagnosis, homelessness, a lack of stable psychosocial environment, poor adherence to scheduled appointments, and limited emotional support (Sylvestre, 2003; Zweben, 2001).

Similarities in attitudes to HIV/AIDS and HCV

There are parallels between HIV and HCV and their associations with stigmatised groups (Herek & Capitanio, 1999). During the early phase of HIV/AIDS infection, the virus was closely linked to homosexuality. The gay community was blamed for the onset of HIV/AIDS and portrayed as a danger to heterosexuals. Similarly IDUs have been held responsible for the spread of HCV in Australia (Anti-Discrimination Boards of NSW, 2001). Thus it seems that the source of negative societal attitudes towards

gay men and towards IDUs is similar. Infected IDUs and gay men are seen to have acquired a disease through 'perverse' and 'immoral' behaviour. For both, the stigma is perceived as controllable, transmitted through voluntary behaviours, and this leads to more negative social reactions (Whitley, 1990; Crocker, Major & Steele, 1998). Both also carry the threat of contagion (Herek & Capitanio, 1999).

As with AIDS stigma, HCV stigma may be conceptualised as a distinct psychological construct. It has components that include affective reactions to people with HCV, attributions of responsibility and blame, attitudes towards public health policies related to HCV (such as harm minimisation and prevention of transmission of blood borne viruses, and associated practices such as needle and syringe exchange programs and methadone maintenance programs), and willingness to interact with people with HCV (Whitley, 1990). Negative attitudes towards people with HIV/AIDS have been found to be related to a range of demographic, psychological, and social variables including negative attitudes towards homosexuality and bisexuality, higher conservatism and religiosity, being male, being older, having less education, and less contact with members of the stigmatised group (Bermingham & Kippax, 1998; Ellis, Kitzinger & Wilkinson, 2002; Heaven & Oxman, 1999; Herek, 1994; Herek & Capitanio, 1999).

Due to the similar etiology of attitudes toward homosexuals and HIV/AIDS on the one hand, and attitudes toward IDUs and HCV on the other, similar constructs may be involved in both sets of attitudes. Research had found that religious fundamentalism is associated with prejudice towards gays and lesbians (Hunsberger, Owusu, & Duck, 1999; Laythe, Finkel & Kirkpatrick, 2001; Laythe, Finkel, Bringle & Kirkpatrick,

2002), and is also linked to the constellation of attitudes that comprise right wing authoritarianism (Altemeyer & Hunsberger, 1992; Hunsberger, 1995). Similar to religious fundamentalists, people who follow more conservative ideologies tend to adhere to traditional ways of viewing the world and to be resistant to change (Jost, Glaser, Kruglanski & Sulloway, 2003). To people who hold strong fundamentalist religious convictions and conservative attitudes, IDUs are seen as threatening to the traditional social and moral order.

If prejudice and discrimination toward people with HCV are likely to emerge from perceptions that the stigma is controllable, then it should be the case that individuals who are more likely to regard such behavior as within the individual's control are also more likely to be prejudiced against people with HCV. Thus, conservatism should be linked to prejudice toward people with HCV, as conservatives are more likely than others to see behavior as under the personal control of the individual rather than societal forces, social structures, etc. (see Jost, Glaser, Kruglanski & Sulloway, 2003). For conservative people, IDUs are likely to be perceived as having brought this disease upon themselves by engaging in the illegal activity of injecting drug use (Krug, 1997).

Attitudes and contact with hepatitis C positive clients

One factor that may be important in moderating attitudes towards a stigmatised group is contact with that group. Greater contact with HCV positive clients has been linked to more experience with this client group and more knowledge about HCV amongst medical practitioners (van den Mortal, 2002). Allport (1954) originally asserted that contact between groups under certain conditions reduces prejudice, and a large body

of research in social psychology has supported this conclusion (Pettigrew & Tropp, 2006). The majority of research on intergroup contact and the effect on attitudes has examined interracial contact. In the smaller body of literature that addresses other stigmatised groups, studies also show that greater contact with a stigmatised population is associated with less negative attitudes towards that population (Herek & Capitano, 1996; Werth & Lord, 1992). This effect has been found among health care workers who work with people who are HIV positive (Bermingham & Kippax, 1998). Bermingham and Kippax assessed HIV-related discrimination among general practitioners in New South Wales, Australia, and found that discriminatory behaviours by general practitioners decreased as contact with members of the affected group increased.

This earlier research on intergroup contact suggests that health care workers who have more contact with people with HCV are likely to show more positive attitudes towards this group. However contact does not always lead to more positive attitudes. Research also shows that there are situations in which this relationship does not hold, especially when the critical conditions of equal group status, common goals, intergroup cooperation, and authority support are not met (Pettigrew, 1998). People who inject drugs may be a challenging group to work with as patients, and thus medical contact with them may serve to reinforce stereotypes about this group as chaotic and unmanageable, thereby making attitudes more negative. Thus, the literature on intergroup contact provides evidence suggesting that contact with IDUs is likely to lead to more positive attitudes, but could also lead to more negative attitudes towards them.

Negative attitudes and the impact on behaviour

As discussed above, attitudes of health care workers to their clients are acknowledged as significant in determining quality of care, treatment experiences and treatment outcomes. Attitudes are complex and are not always available to conscious scrutiny. Hence they may influence behaviour in numerous ways, some of which we may be aware of and have control over and others which we are unaware of and are not under our control (Greenwald et al, 1998). Current research on HCV has documented prejudice and discrimination within the health care profession and policy documents mention the need to decrease stigma and HCV-related discrimination among health care workers (Department of Health and Aging, 2000; Anti-Discrimination Board of NSW, 2001). In the current climate prejudicial attitudes and discrimination among health care workers may not be perceived as acceptable and health care workers may strive to view people with HCV in a non-prejudicial manner. However, given the stigma surrounding HCV, there are numerous reasons why these efforts to be non-prejudicial and non-discriminatory may fail.

Some theories of stereotyping suggest that a stereotype is automatically activated when a member of the category is encountered. Devine (1989) proposes that all people have an awareness of stereotypes about a group regardless of whether they are high or low in prejudice towards that group. These stereotypes are then automatically activated upon exposure to the stereotyped group irrespective of the conscious beliefs or intentions of the person. The degree to which this stereotype is endorsed and acted upon can differ depending on whether the person is high or low in prejudice. While everyone has knowledge about stereotypes, personal beliefs determine whether these stereotypes are endorsed or not. When individuals are high in prejudice, their personal

beliefs about a stigmatised group and their knowledge of the stereotype of that group are highly congruent. However for those low in prejudice, their personal beliefs are quite different to their knowledge of the group stereotype.

As Devine (1989) argues, rejection of the stereotype because of personal beliefs does not eradicate the stereotype from the individual's mental associations. Health care workers may be low in prejudice and may not want to act in discriminatory ways towards people with HCV. However on encountering someone with HCV, entrenched stereotypes about IDUs may be automatically activated. Working in hospitals or general practice there is often little time to spend with patients. Health care workers are very busy especially in the public sector and may be overtaxed mentally and physically (Templeton, Deehan, Taylor, Drummond, & Strang, 1997). Even if they would like to inhibit the activation of a stereotype about their HCV patient, they may not have the time or cognitive resources to do so (see Bodenhausen & Macrae, 1998).

Hence an individual's efforts to control automatically activated stereotypes may vary in success. Fazio, Jackson, Dunton and Williams (1995) propose that the crucial factor influencing motivation to control automatically elicited stereotypes is opportunity. The desire to control prejudiced responses is directly related to the opportunity the person has to assert control over these responses. Research also suggests that opportunity to control prejudice is related to self regulation which is a resource that can become depleted if over extended (see Muraven & Baumeister, 2000). For example opportunity to control prejudice and ability to self regulate attitudes towards a stigmatised group may be limited in a health care setting due to time constraints and workload demands placed on people working in the health care

sector. IDUs are not an easy client group to work with, especially if they are still using drugs and may have difficulty keeping appointments and sticking to treatment regimes (Aloisi, Arici, Balzano, Noto, Piscopo, Filice, Menichetti, Monforte, Ippolito & Girardi, 2002; Clarke, Delamere, McCullough, Hopkins, Bergin & Mulcahy, 2003; Sylvestre, 2003). Managing such a client group may leave little time and opportunity to cope with one's own cognitive processes and contain prejudicial responses. This idea is further supported in a recent study by Govorun and Payne (2006) where they found that the ability to regulate conscious attitudes becomes less when an individual is mentally taxed and that this is related to a decrease in cognitive control over these stereotypes rather than an increase in stereotype accessibility. Hence health care workers working in busy clinics with a difficult client group may become mentally exhausted and this cognitive overload may result in their having less cognitive control to regulate the expression of these stereotypes.

An individual's efforts to control prejudice may also be influenced by his/her reasons for wanting to appear non-prejudiced. Devine, Plant, Amodio, Harmon-Jones and Vance (2002) distinguished between people who are internally motivated to respond without prejudice and those who are externally motivated (see also, Plant & Devine, 1998). They reasoned that those who were personally (internally) motivated would be more effective in controlling prejudice than those who were motivated by a desire to appear non-prejudiced to others (externally motivated). Their study illustrates that the relationship between external/internal motivation and responding without prejudice is complex. Those most successful at regulating their responses were those who reported high levels of internal and low levels of external motivation. These are people who act in certain ways because of personal beliefs and not because they are regulated by

social norms. Those who were both externally and internally motivated to control their prejudice were not as effective. Such individuals may experience more prejudice related discrepancies and hence feel guiltier about their responses (see Devine & Monteith, 1999; Monteith, 1993). These are individuals who may be more aware of and are more governed by external pressures not to appear prejudiced. This pressure coupled with a personal desire not to be prejudiced may create more insecurity about behaviour and may make it more difficult to control the expression of automatic race bias (Devine et al., 2002; Plant & Devine, 1998).

This line of research illustrates that it is important to understand the motivation of health care workers not to appear prejudiced towards people with HCV. The recent increased focus of HCV related discrimination in the health sector creates an external motivation to prevent the expression of negative attitudes towards this group. But as the work of Devine et al (2002) illustrates, external motivation is not enough to control discrimination. These individuals may not have developed the personal belief system required to regulate their attitudes and behaviour. This is further supported by the findings of Plant and Devine (1998) that race bias was evident when participants high in external motivation were not motivated to respond without prejudice. Additionally insecurity that may be generated for those who are anxious to comply with normative pressure not to discriminate and who have personal motivation not to be prejudiced may actually result in less ability to regulate their responses to that group, especially when responses are harder to control.

Gaertner and Dovidio (2000) propose a more comprehensive theory to explain discrepancies in how people relate to members of a stigmatised group. They suggest

that prejudice and discrimination against stigmatised groups still exist, but the expression of these manifests in much more subtle ways. They use the term 'aversive racists' to describe people who regard themselves as non-prejudicial and non-discriminatory and who overtly sympathise with those who have been discriminated against, but who still possess negative feelings towards this group. Although they refer specifically to race relations among White and Black people, their theories can be extrapolated to interactions between other stigmatised and non-stigmatised groups. Gaertner and Dovidio (2000) propose that these negative feelings towards a stigmatised group are unavoidable, however at the same time people are taught that prejudicial attitudes and discriminatory behaviour are morally unacceptable. Aversive racists experience this tension between a desire to be just and fair and unavoidable racist biases. As most people want to be viewed as moral and ethical they do not overtly express negative attitudes towards the stigmatised group. Direct expression of prejudice would be contrary to the egalitarian self-image that aversive racists endorse and attempt to project. It is this desire to protect a particular way of viewing the self that prompts aversive racists to try to avoid behaving in overtly discriminatory ways. The attitude of aversive racists toward members of stigmatised groups is characterised by disgust, discomfort and awkwardness rather than by overt hostility and hate, and hence the attitude influences behaviour in subtle ways, such as avoidance of the stigmatised group. Gaertner and Dovidio (2000) propose that it is easier to act in discriminatory ways where norms about behaviour are ambiguous. In such instances negative actions towards a stigmatised group would not be construed as challenging to an individual's self image. However they propose that aversive racists can behave in negative ways towards stigmatised people even in situations where the norms governing behaviour are more strongly prescribed. In such an instance the aversive

racist would search for ostensibly non-prejudicial reasons for behaving negatively towards a stigmatised person.

Wilson, Lindsey and Schooler (2000) explain the way that an individual may relate to a member of a stigmatised group in terms of the coexistence of two different attitudes. They term this the model of dual attitudes and argue that a person can have two attitudes about one object and that these attitudes can coexist. A dual attitude refers to these two different evaluations of the same object, one that occurs implicitly and the other occurs explicitly. Wilson et al (2000) also argue that when people have a change of attitude, the original attitude is not always replaced by the new attitude. The old attitude may remain in memory and coexist with the new attitude. This old attitude represents the implicit attitude not accessible to consciousness and the new one the explicit attitude, that is conscious and more accessible. The implicit attitude is easier to retrieve than the explicit attitude because it is activated automatically. Similar to Devine's (1989) theory, the dual attitude model proposes that when a person has the motivation and capacity to retrieve the explicit attitude, it overrides the implicit attitude, but when there is little motivation and capacity the implicit attitude will predominate. As it is consciously accessible, explicit attitudes change with relative ease, however implicit attitudes are much harder to change. Finally the authors propose that dual attitudes are distinct from ambivalent attitudes where an individual experiences a difference in the affective and cognitive components of an attitude. Rather people with dual attitudes experience no subjective ambivalence as they report only the explicit attitude and remain largely unaware of the implicit attitude.

Where the dual process model differs from other theories is the idea that two attitudes can exist simultaneously and that both are valid, but represent different processes. This is similar to the theory proposed by Gaertner and Dovidio (2000), where the controlled and automatic processes evident in aversive racists are considered to be representative of two different attitudes. The influence of implicit attitudes on behaviour may explain why discrimination may manifest in subtle, covert ways. Following Gaertner and Dovidio's aversive racist paradigm (2000) and Wilson et al's (2000) dual process model one could reason that behaviour may be influenced by the unconscious, automatic negative attitudes, which are elicited when confronted by a stigmatised group. If this attitude exists outside of conscious awareness, individuals may truly believe that they are not prejudiced and are not behaving in a discriminatory way. However aspects of their behaviour may be influenced by their implicit attitudes towards the group resulting in subtle forms of discrimination. This model also explains why there may be a discrepancy between explicit and implicit attitude, and explicit attitude and behaviour.

As discussed above, IDUs are a particularly highly stigmatised group against whom legal sanctions have been enforced. The stigmatisation of IDUs exists at a moral, social and legal level. At the same time medical models of IDUs as diseased or sick people have resulted in feelings of sympathy for this group who have developed a chronic physical illness as a result of their deviant behaviour (Batson, Polycarpou, Harmon-Jones, Imhoff, Mitchener, Bednar, Klein & Highberger, 1997; Krug, 1997). This may create a tension for people working in the health care sector who are meant to take care of the sick and suffering, but may share the same views that society holds of people who inject drugs. Even though the risk is small, such negative feelings

towards people with HCV may be further compounded for health care workers by their fear of contracting the disease from clients via needlestick injury or other contact with contaminated blood (Charles, Angus, Sasadeusz & Grayson, 2003).

The recent acknowledgement of discrimination in the health care sector towards people with HCV has led to calls to decrease HCV related discrimination. Explicit attitudes that are more positive towards people with HCV may coexist with entrenched implicit attitudes about HCV and IDUs that are harder to change (Wilson et al, 2000). The increased reference in policy and research reports to the prevention of stigma and discrimination amongst people working with HCV clients is likely to lead to increased awareness among health professionals not to act in discriminatory ways. Hence norms prescribing against discrimination of people with HCV may have become clearer. However as Gaertner and Dovidio (2000) have argued this does not mean that discrimination towards people with HCV within the health care sector has ceased, but rather it may take more subtle forms and be attributed by health care workers to other sources rather than to prejudicial attitudes towards that group. For example, health care workers might justify behaviours such making an HCV positive patient wait to be seen until the last session of the day so as to sterilise equipment overnight or burning hospital sheets of HCV positive clients as procedures of correct infection control (Anti-Discrimination Board of New South Wales, 2001).

Studies have shown how discrimination may manifest in subtle ways. Hebl, Foster, Mannix and Dovidio (2002) conducted a study to assess whether people portrayed as homosexual in a work environment would be discriminated against. They assessed formal bias in the workplace, interpersonal behaviour among work colleagues and

perceptions of bias. They found that while formal discrimination against people in stigmatised roles did not occur in the workplace, interpersonal discrimination was evident. Employers engaged in shorter interpersonal interactions with homosexuals, fewer words were spoken during these interactions, and the interactions were more negative. This study also assessed the perceived discrimination by homosexual job applicants. They found that these applicants perceived their employers to be more nervous, hostile and aloof and less interested in the stigmatised than non-stigmatised applicants. The authors argue that stigmatised applicants were able to infer the subtle forms of interpersonal discrimination and this influenced the way they behaved in an employment context.

The dual attitude model would propose that in this case employers' may possess explicit attitudes which prompts them to behave in a morally appropriate manner, while their subtle informal behaviours may be influenced by the existence of negative implicit attitudes towards homosexuality (Wilson et al, 2000). Similarly in a health care setting, professional conduct norms against HCV-related discrimination govern the expression of prejudice and discrimination, but expression of negative attitudes towards people with HCV may occur subtly through other means and affect the treatment encounter. Subtle forms of prejudice and discrimination have been found to be more insidious and psychologically aversive than overt forms of discrimination because of the ambiguous nature of subtle discrimination (Operario & Fiske, 2001).

Having provided evidence to support the existence of both positive explicit and negative implicit attitudes amongst health care workers working with HCV positive IDU clients, it is necessary to understand why the expression of the implicit attitudes

may prevail over the expression of the explicit attitudes. As discussed above health care workers may want to show positive attitudes towards this client group, however if their motivation is externally generated it may not be effective in preventing prejudice (Devine, Plant, Amodio, Harmon-Jones and Vance, 2002; Plant & Devine, 1998). Additionally, in a busy clinical context and with a potentially difficult client group to manage, these health care workers may have little opportunity and cognitive resources left over to prevent the expression of negative implicit attitudes (Fazio, Jackson, Dunton & Williams 1995; Govorun & Payne, 2006; Hebl et al, 2002; Muraven & Baumesister, 2000). It may be that prejudicial attitudes are then expressed, possibly through more subtle behaviours (see above discussion on using infection control procedures to justify behaviour), and affect the health care and treatment experiences of these clients. Hence the theory discussed above highlights the importance of addressing both the reported attitudes and the implicit attitudes of these health care workers in order to adequately understand prejudice and any related discriminatory behaviour amongst health care workers working with HCV positive clients who inject drugs.

Concluding remarks

The literature outlined above illustrates that health care workers may hold dual (both positive and negative) attitudes towards their HCV positive clients (Wilson et al, 2000). On the one hand, based on personal beliefs of health care workers and on the current condemnation of HCV related discrimination in the health care sector, the explicit attitudes of health care workers toward this population are likely to be favourable. However, on the other hand, these positive attitudes may coexist with more entrenched negative attitudes towards IDUs and by implication toward people

with HCV (Day et al, 2003). Given both the context in which many health care workers work and nature of the population with which they are working, these health workers may have limited opportunity and cognitive resources to control the expression of their implicit attitudes. The negative implicit and positive explicit attitudes of health care workers toward their HCV positive IDU clients are likely to differentially influence behaviour towards this client group. Contact with HCV positive IDU clients may act as a mediating variable in this model. In all likelihood, the more contact that a health care worker has with these clients the more favourable their explicit attitude. However, as noted this association between increased contact and positive attitudes does not always hold (Pettigrew, 1998). Additionally, little is known about the relationship between contact and implicit attitudes.

The theory discussed in this chapter also illustrates that if prejudice and discrimination toward people with HCV emerge in part from perceptions that the stigma is controllable, then individuals who are more likely to regard such behaviour as within the individual's control are also more likely to be prejudiced against people with HCV. Thus, conservatism should be linked to prejudice toward people with HCV, as conservatives are more likely than others to see behavior as under the personal control of the individual (Jost, Glaser, Kruglanski & Sulloway, 2003). It is likely, then that more conservative health care workers will have more negative attitudes towards their HCV positive IDU clients because they perceive these clients to have caused their own illness through their injecting behaviour. These more negative attitudes of the conservative health care workers will then influence the way they treat their HCV positive IDU clients as compared to their HCV negative non IDU clients.

CHAPTER 3 – The stigmatised group

An interaction is not only defined by the actions of the non stigmatised party.

Members of a stigmatised group enter an interaction with preconceived notions about what will occur in that encounter. The attitudes of clients toward their treatment and toward health care workers are also likely to influence the quality of care, treatment experiences and treatment outcomes. Clients may believe that health care workers will react to them in a stereotypical way because they are members of a stigmatised group. Thus a client with HCV acquired from injecting drug use may adopt a particular attitude towards their health care worker because they fear being discriminated against.

The impact of being part of a stigmatised group

The negative views held by society about a stigmatised group may become internalised and affect the way that group views itself (Gilmore & Somerville, 1994). The group then comes to believe that the stigma is deserved and that their group is less socially valuable than other groups. Group devaluation may impact negatively on personal self esteem and self worth (Crocker et al, 1998). Studies have shown internalised stigma to occur amongst people living with HIV/AIDs (Lawless, Kippax & Crawford, 1996; Lee et al, 2002). At an individual level this reinforces low self esteem and self hatred and at an institutional level justifies their experiences of discriminatory behaviour by health care workers (Buchanan & Young, 2000). It also increases fear of accessing health care and support services and may be another factor resulting in inappropriate medical care for people with HCV (Lawless et al, 1996).

Negative feelings about oneself and one's group may also contribute to an under-reporting of experiences of discrimination by people with HCV. Not only may these be seen as justified, but people with HCV may also feel that because of their groups' low status and lack of value, these complaints about discrimination may not be taken seriously (Stangor, Swim, van Allen & Sechrist, 2002).

Not all research has found that stigmatised individuals automatically develop low self esteem and a poor sense of self worth, as they may create various ways to protect themselves from developing a negative sense of self. One important mechanism proposed is that stigmatised group members may attribute negative feedback about themselves to the prejudice of others (Crocker & Major, 1989). Attributions of negative feedback to personal inadequacy will negatively impact on self esteem, however attributing such feedback to prejudice can act to protect personal self esteem (Crocker, Cornwell & Major, 1993). Research suggests that stigmatised individuals know that their stigma evokes particular reactions in others. They are aware that others often react to them in ways that reinforce particular stereotypes about their group. Stigmatised individuals are sensitive to information within their environment that may promote negative reactions or discrimination. They may not always trust the behaviour of others towards them especially when these others profess not to be prejudiced, but still act in discriminatory ways (Crocker et al, 1998). This leads to attributional ambiguity, whereby attributions for negative responses and attitudes to the stigmatised group are unclear and could be attributed to prejudice and discrimination rather than to personal failures.

Conversely, holding prejudicial attitudes towards a group may also lead to attempts by others to compensate for these negative feelings. Members of stigmatised groups face the possibility that sympathy and concern for their well-being may be an attempt by others to appear non prejudicial rather than genuine care. This also creates a situation of attributional ambiguity. As noted, attributional ambiguity may protect the self esteem of a member of a stigmatised group in a situation of negative feedback, by enabling the individual to attribute actions to the prejudice of others. However it has also been shown to undermine the stigmatised individual's feelings about the positive responses of others to them (Crocker, Voelkl, Testa & Major, 1991). People with HCV may believe that the way others interact with them is governed by their stigmatised condition rather than genuine concern. In the health care environment this could make them doubt the genuineness of their interactions with a health care worker and these attitudes could, in turn, affect the quality of care afforded to them. For example a health care worker's repetition of instructions about how to follow a complicated treatment regime may be interpreted by the HCV positive client as stemming from the health care worker's belief that they will not adhere to the treatment program. This could lead the HCV positive client to dislike the health care worker, to pay little attention to their instructions, and ultimately affect the health care encounter.

In situations of attributional ambiguity, why are some stigmatised groups more likely than others to interpret negative feedback as related to prejudice and discrimination? Crocker et al (1993) propose that the perceived controllability of the stigma is an important dimension in understanding this issue. As discussed, having a stigma that is perceived as controllable, such as injecting drug use, may create a sense of personal

responsibility for that stigma and hence attributions for negative outcomes related to that stigma may be attributed to personal failure. In contrast an individual is less likely to accept personal responsibility for a negative evaluation arising from a stigmatising condition when the stigma is not under their control. Crocker et al (1993) conclude that controllability may be the critical factor that defines which stigmatising conditions will result in low self esteem in the stigmatised group.

The implications of anticipating discrimination

HCV positive people may interact with others in particular ways because they anticipate that they will be discriminated against. Studies on perceived stigma have found that expectations can influence what is attended to in a social situation and the inferences that are drawn about others (Strenta & Kleck, 1984). Kleck and Strenta (1980) tested this assumption in a study in which the participants were led to believe that another person thought they had one of the following; an allergy, epilepsy or a facial scar. The facial scar had been drawn onto the participants face with cosmetic makeup, but removed without their awareness prior to the interaction with the confederate. In the other two conditions of epilepsy and allergy, the participant believed that the person with whom they were to interact had been given a history of their physical health, when in fact this had not occurred. Those people who were in the stigmatised facial scar and epilepsy conditions perceived that their partners' behaviour had been affected by their presumed physical ill health. Findings showed that people who believed that they had a facial scar focussed heavily on how others made eye contact with them and attributed much eye contact as staring and little eye contact as avoidance. Those with epilepsy focused on the nonverbal behaviour of others and felt them to be anxious and tense in the presence of a presumed epileptic.

These findings appear to be robust across different stigmatised groups (Strenta & Kleck, 1984). Kleck and Strenta (1980) argue that an expectancy hypothesis is set up by the stigmatised person for how the person they are interacting with will behave. This leads to a change in the stigmatised person's behaviour that, in turn, modifies the behaviour of the other person in the interaction. The behaviour of the other is then perceived by the person with the stigma as being related to their stigmatised condition rather than as possibly a result of their own change in behaviour. As noted, illicit drug use is a highly stigmatised condition and perceptions of stigma may affect the interaction between a person with HCV and a health care worker. This is a situation where the role of HCV is highly salient. HCV positive people often disclose their HCV status to health care workers and through this expose themselves to real or perceived discrimination (Hopwood & Treloar, 2003). The health care encounter may often revolve around the persons' HCV-related concerns. Perceived stigma may influence this interaction to the extent that the person with HCV only focuses on that which confirms their expectations that other will discriminate against them.

A study on perceived HIV-related stigma by Derlega, Winstead, Greene, Serovich and Elwood (2002) found that perceived stigma in the context of disclosure of HIV status was related to concerns about self blame. The authors argue that those who perceive their illness to be highly stigmatised would be much more aware of the consequences of disclosure such as social rejection and isolation. They found that the more a participant believed that the public stigmatised HIV, the greater their feelings of self blame. Such feelings of self blame by the stigmatised person may be more highly prevalent for conditions where the stigma is perceived as controllable, such as HIV

and HCV. Crocker et al (1993) argue that when a stigma is controllable, individuals feel that they are responsible for the negative attributions of others and this leads to self blame. In contrast, those with stigmas that are not controllable may be more likely to attribute negative attitudes towards their group to prejudice and discrimination, and see themselves as not responsible in any way for these reactions by others.

In a study that compared persons with HIV and those with cancer, Fife and Wright (2000) found that those living with HIV had suffered more social rejection, financial insecurity, internalised shame and social isolation. However both HIV and cancer patients who perceived more social rejection and isolation associated with their illness had lower self esteem than those who perceived less stigma around their illness.

Perceived stigma appears to be an important dimension in understanding an individual's experience of a stigmatised condition and how this may shape interactions with others. Groups with different stigmatised conditions will have different perceptions of how this stigma may affect social situations. In another study by Strenta and Kleck (1985) the authors found that some groups perceive their stigmatising condition to be more influential than others in a social encounter. They compared amputees and spinally injured persons' perceptions of a disability as affecting social interactions. The spinally injured group were much more likely to perceive the disability as affecting the interaction than the amputees. The authors argue that these findings illustrate that the more the stigmatising condition is viewed as pivotal in shaping the social encounters the greater the expectation that the interaction by others will be influenced by this stigmatised condition.

Pinel (1999) proposed the concept of stigma consciousness to identify the extent to which a target group expects to be stereotyped. In a series of studies she found that stigma consciousness could predict within group variation in perceptions of discrimination. Those high in stigma consciousness were more likely to be constantly aware of discrimination targeted towards their group. Similarly Operario and Fiske (2001) note that stigmatised individuals' degree of identification with their group can influence their perceptions of ambiguous discrimination. Those who identified more highly with their group were likely to interpret ambiguous or subtle negative acts as indicative of discrimination towards their group. In general stigma consciousness is likely to be high among IDUs who engage in an illegal activity that is considered immoral and through which they have contracted a blood borne virus like HCV. IDUs are likely to be aware of the way in which they are devalued and marginalised in society. They may even have negative thoughts and feelings about their own group and hence expect to be discriminated against by others. Groups that are highly stigmatised and face moral, social and legal sanction within a society, such as IDUs, could be considered a low status minority. Such low status minorities show more evidence of automatic ingroup devaluation on implicit measures than high status minorities (Rudman, Feinber, & Fairchild, 2002).

HCV positive IDU clients and their health care workers

Being part of a stigmatised group may influence HCV clients' perceptions of service providers, who may not be felt by clients to have their best interests at heart even when treated well by the health care professional (Crocker et al, 2000). This may be especially so in situations where attributions for behaviour are ambiguous as in the case of subtle prejudice and discrimination. While health care workers may overtly

behave in ways that are non-prejudicial, their behaviour may hint at prejudice (Gaertner & Dovidio, 2000; Wilson et al, 2000). This ambiguity for members of a highly stigmatised group such as IDUs may result in their attributing any and all of the behaviours of health care workers to prejudice and discrimination.

Despite policy to the contrary, current reports suggest that HCV positive clients are likely to assume that they will experience discrimination in the health care setting and may have little faith that they will be provided with the best available care (Anti-Discrimination Board of New South Wales, 2001; Crofts et al, 1997; Department of Health and Aged Care, 2000). Additionally, expectations of prejudice and discrimination may lead people to behave in ways that actually elicit that reaction from others (Snyder & Swann, 1978; Strenta & Kleck, 1985). Hence attitudes of clients to their health care workers are likely to also influence treatment outcomes. Consistent with such a possibility, research on perceived stigma in mental illness suggests that fear of rejection and discrimination can create strained and uncomfortable interaction with those who could potentially stigmatise, such as health care workers (Link, Struening, Neese-Todd, Asmussen & Phelan, 2001). There is a need to broaden the scope of research on the influence of perceptions of stigma to include other stigmatised conditions such as HCV and to assess how all of these factors interact to influence quality of care.

Concluding remarks

On the basis of the literature discussed above, it is evident that not only will the attitudes of health care workers towards their HCV positive IDU clients affect the treatment experiences of these clients, but so too will the attitudes of HCV positive

clients towards their health care workers. People with HCV come to the health care encounter with a series of expectations and attitudes based on their past experiences of prejudice and discrimination. These attitudes towards health care workers also play a role in determining how health care workers relate to their clients. Hence it is important to also take into account both the explicit and implicit attitudes of HCV positive clients towards their health care workers in determining treatment experiences and quality of care afforded to people with HCV.

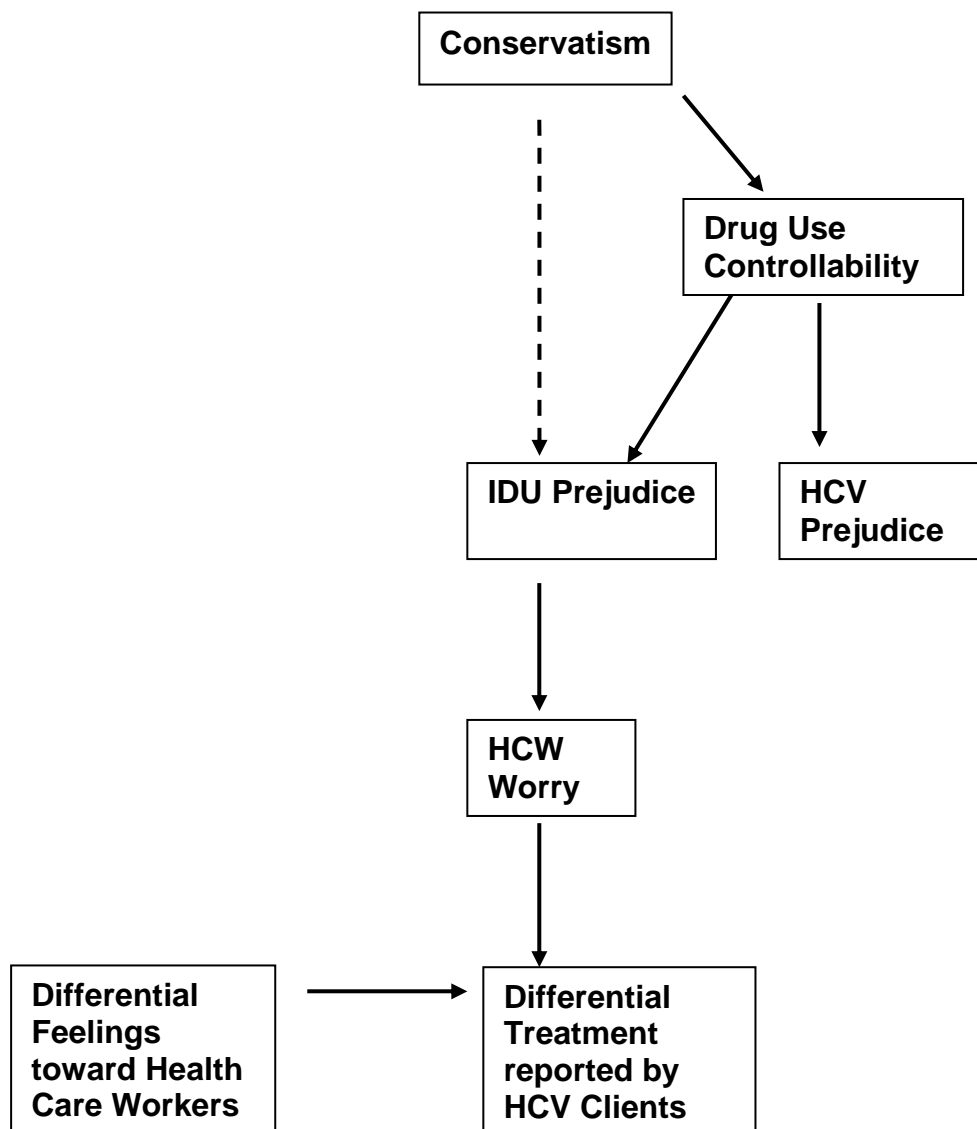
CHAPTER 4 – Outline of the research

This research has various aims. Firstly it focuses on assessing the implicit and explicit attitudes of both health care workers and their HCV positive IDU (HCV+) clients toward each other and then establishing whether these affect the treatment experiences of health care workers and clients. Based on the literature outlined in the first three chapters, it is presumed that while health care workers may have positive explicit attitudes towards their HCV+ IDU clients, they will have negative implicit attitudes and these different attitudes will differentially affect the treatment experiences of the clients. Further, while HCV+ IDU clients may have positive explicit attitudes towards their health care workers, it is hypothesized that based on past experience in the health care sector their implicit attitudes towards their health care worker will be negative. The implicit and explicit attitudes of these clients towards their health care worker will also influence the treatment encounter. Hence, this study is the first controlled study to examine the inter-relationships among attitudes and experiences of health care workers and their HCV+ IDU clients. It is also the first study to match health care workers, HCV+ IDU clients and HCV negative (HCV-) non-IDU clients to a treatment facility in order to compare the experiences of these two different clients group attending the same treatment service.

In terms of health care workers attitudes toward their HCV+ IDU clients and the influence of these on treatment experiences, the following was predicted: health care workers who held more conservative attitudes and who believed that their clients' injecting drug use was under their control would show more prejudice towards people

who injected drugs and toward those with HCV. However, recall that prejudice to IDU appears to determine negative attitudes towards HCV rather than the other way around (Day et al, 2003). Hence it is likely that prejudice to IDU rather than prejudice to HCV will be the attitude that predicts client treatment experiences. So, it was therefore hypothesised that this IDU prejudice, in turn, would influence the way health care workers treated their clients, in part because health care workers who were more prejudiced toward IDUs were expected to be more worried about the negative behaviours of their IDU clients. These worries, particularly those that centre around injecting drug use (Day et al., 2003), are expected to be the underlying attitudinal/belief basis for discriminatory treatment of people with HCV. However some of the worries that health care workers have in relation to their clients with HCV may of course be genuine concerns. For example, for clients who are still injecting drugs it may be more difficult to follow a treatment regimen than for those clients who have never injected drugs (Alosi et al, 2002; Clarke et al, 2003 & Sylvestre et al, 2005). In this instance health care workers may offer IDUs with HCV different treatment than other clients because of reasonable concerns. Other literature has noted similar concerns that health care workers may have about HCV+ IDU clients as a result of lifestyle issues associated with injecting drug use, for example an inability to adhere to treatment, a lack of stable psychosocial environment and limited emotional supports (Sylvestre, 2003; Zweben, 2001). Health care professionals may also have worries that are based in personal experience, regarding threats to safety, theft and violence in relation to this population. It is then predicted that this worry that health care workers have about their HCV+ IDU clients is what leads to differences in the way that health care workers treat their HCV+ IDU clients compared to HCV- clients.

Figure 1: Health care workers' and HCV+ clients' attitudes toward each other and treatment experiences



Based on the theory outlined in the first three chapters the following is hypothesized:

- (1.1) Health care workers will show divergent implicit and explicit attitudes towards their HCV+ IDU clients.
- (1.2) Given the current emphasis on decreasing HCV-related discrimination amongst health professionals, explicit attitudes will not be prejudicial, whereas more entrenched prejudice will be displayed in implicit attitudes of health care workers.
- (1.3) The largely negative implicit attitudes and the more positive explicit attitudes will independently influence the way health care workers act towards their HCV+ clients and affect treatment experiences.
- (1.4) Health care workers who are more conservative will show more prejudice towards their HCV+ IDU clients.
- (1.5) More conservative attitudes among health care workers will be correlated with religiosity and with the belief that injecting drug use is under the control of the individual and these attitudes will influence treatment of HCV+ clients.
- (1.6) Because of past experiences in the health care sector, the explicit and implicit attitudes of HCV+ IDU clients toward their health care workers will be negative and will correlate with treatment experiences.

Development and validation of scales

Three studies were required to address the above hypotheses. The first step was to develop scales to measure attitudes towards injecting drug users and towards hepatitis C. These scales were designed to measure the cognitive aspects of IDU and HCV prejudice (Gilmore & Somerville, 1994; Fiske, 1998). As noted in Chapter 2, there are similarities in societal attitudes toward AIDS and HCV, and towards the groups that these two viruses are associated with, IDUs and homosexuals, based on perceptions of the immorality of the chosen lifestyle (Day et al, 2003). Consequently, pre-existing scales that assess attitudes towards homosexuals and towards AIDS were adapted to create scales measuring attitudes towards IDUs and HCV. Two approaches were adopted to validate these scales. First, the new scales were correlated with the original scales measuring attitudes towards homosexuals and AIDS. Second, the new scales were correlated with religious fundamentalism, conservatism and controllability of stigma, known predictors of negative attitudes to homosexuality and AIDS (Altemeyer, 2003; Laythe, Finkel & Kirkpatrick, 2001; Laythe, Finkel & Kirkpatrick, 2003; Whitley 1990). If the newly derived scales toward IDUs and HCV are valid, then the following hypotheses should be supported:

- (2.1) the original scales assessing attitudes towards homosexuality and AIDS and the new scales assessing attitudes towards IDUs and HCV will have similar reliability.
- (2.2) attitudes toward homosexuality, HIV/AIDS, IDUs, and HCV will be inter-related.

- (2.3) Religious fundamentalism, conservatism and controllability of stigma will correlate with attitudes towards IDUs and HCV as they do with attitudes towards homosexuality and HIV/AIDS.

Method

Sample

110 undergraduate psychology students from the University of New South Wales, Sydney, participated in return for a course credit.

Questionnaires

Items relevant to IDUs were adapted from three separate scales - the **Attitudes Towards Gay and Lesbians Scale** (Herek, 1994), the **Heterosexual Attitudes Toward Homosexuality Scale** (Larsen, Reed & Hoffman, 1980), and the **Attitudes Towards Homosexual Scale** (Altemeyer & Hunsberger, 1992). Candidate items were modified to be relevant to injecting drug use, and a 20-item scale assessing **Attitudes Towards Injecting Drug Users** was developed (including items such as 'Injecting drug users should be locked up to protect society' and 'Injecting drug users are mistreated in our society' see Appendix 1). A 27-item measure of **Attitudes Towards HCV** was developed based on the 54 items from the **AIDS Attitude Scale** (Shrum, Turner & Bruce, 1989), by selecting items that were readily adapted to HCV (such as 'The spread of Hep C in our society illustrates how immoral Australia has become' and 'People should not blame injecting drug users for the spread of Hep C infection in Australia'; see Appendix 1). Expected correlates were measured with the **Religious Fundamentalism Scale** (Altemeyer & Hunsberger, 1992, comprising items such as

‘God has given mankind a complete, unfailing guide to happiness and salvation, which must be totally followed’ and ‘Religion must admit all its past failings, and adapt to modern life if it is to benefit humanity’; See Appendix 1), two questions assessing religiosity (**How often have you attended religious services in the past 12 months? and how important is religion in your life?**) (Herek, 2002), the **revised Wilson Conservatism Scale** (Henningham, 1996, Appendix 1), and a 12-item scale assessing **Perceptions of Controllability of Injecting Drug Use** developed for the purposed of this study (containing items such as ‘Illicit drug users are responsible for their own fate’; ‘Illicit drug use is influenced by a person’s social environment’; see Appendix 1). All scales except for the Conservatism scale were answered on a 5-point scale ranging from *strongly disagree* to *strongly agree*. The Conservatism scale was answered on a 3-point scale labelled *yes*, *uncertain*, or *no*, with high scores indicative of more conservative attitudes.

The items from the original scales that were adapted to form the new IDU and HCV scales were nearly identical in form to the new items (e.g. ‘I won’t associate with known homosexuals if I can help it’ and ‘I won’t associate with known injecting drug users’ if I can help it’; or ‘Only disgusting people get HIV infection’ and “Only disgusting people get hep C infection”) , and so the four scales were divided into odd and even items so that participants could be presented with all four scales without answering items that were nearly identical. This procedure also allowed an assessment of the split-half reliability of the two new scales. The order of the scales was counterbalanced such that in four of the conditions, religious fundamentalism, conservatism, and controllability of injecting drug use were assessed before the four

attitude scales, and in the other four conditions the order of administration of all scales was reversed (see Appendix 2 for an example of the conditions).

Participants signed up for a study of social opinions, and were given the package of instruments to complete. Due to the undergraduate nature of the respondent sample, instructions included information on hepatitis C (i.e., symptoms, prognosis, treatment and modes of transmission, see Appendix 2).

Results and discussion

Reliability was assessed as split half reliability for the two original and two adapted scales. As can be seen in Table 1, all have adequate split-half reliabilities. Consistent with Hypothesis 2.1, the reliabilities of the derived scales are similar to those of their parent scales, although the IDU scale has somewhat lower reliabilities than its parent scale.

The reliability of the original version of the scale assessing perceptions of the controllability of stigma was poor ($\alpha = .33$). Eight items were removed and the 4 items that remained (“Injecting drug users are responsible for their addiction”, “Injecting drug users can stop using drugs whenever they want”, “People inject drugs to avoid dealing with their own inadequacies”, “Injecting drug users have weak characters”) comprised the new scale with a reliability of .59.

The correlations in Table 1 also support the predicted relationships between attitudes towards homosexuality, attitudes towards IDU, attitudes towards HIV/AIDS, and attitudes towards HCV, as described in Hypothesis 2.2. The results of Table 1 also

provide support for Hypotheses 2.3, in that religious fundamentalism, conservatism, and perceptions of controllability were all predictive of more negative attitudes toward homosexuals, IDUs, AIDS, and HCV. Nevertheless, religiosity and conservatism showed stronger relationships with attitudes toward homosexuals and AIDS than they did with attitudes toward IDUs and HCV.

Table 1: Correlations and reliabilities (n=110)

Relig Fund	.93						
Control of IDU	.07	.59					
Conservatism	.69***	.23*	.72				
Gay att	.58***	.19	.54***	.83 -- .90			
IDU att	.23*	.44***	.36***	.31***	.70 -- .72		
HIV att	.43***	.44***	.37***	.63***	.37***	.66 -- .73	
HCV att	.29**	.45***	.28**	.52***	.47***	.78***	.69 -- .77
	Relig Fund	Control of IDU	Conserv	Gay att	Idu att	HIV att	HCV att

Reliabilities reported on the diagonal.

* $p < .05$, ** $p < .01$, *** $p < .001$

Numbers separated by a dash represent the range of reliabilities for the split-half versions of the scales.

The results of this scale validation study indicate that these new scales measuring attitudes towards IDUs and HCV appear to be reliable and valid. The two new scales show good split-half reliability, only slightly lower than the reliability of the pre-existing scales on which they are based. The new scales also show convergent validity in that they correlate with scales measuring attitudes to a similarly stereotyped population, homosexuals, and a similarly stigmatized illness, AIDS. Additional support for the validity of the scales is illustrated in their correlation with

conservatism, religiosity, and controllability, all of which are known predictors of negative attitudes towards homosexuality and towards AIDS.

Development of instruments for the main study

Health care workers: explicit attitude measures

In the scale validation study religiosity was measured using the **Religious Fundamentalism Scale** and an additional two questions on religiosity. However it is too time consuming and repetitious to administer both of these scales to health care workers. The **Religious Fundamentalism Scale** consisted of 20 items. This was also felt to be too long for health care workers to complete along with the other instruments. This scale correlated with one of the two questions assessing religiosity which was asked of participants in the scale validation study – “**How important is religion in your life.**” $r = -.60, p < .001$. This question also correlated with the conservatism scale $r = .60, p < .001$. The second question “**Have you attended religious services in the last 12 months**” correlated with the question on the importance of religion $r = .39, p < .01$, and to a lesser degree with the conservatism scale $r = .22, p < .05$, but did not correlate with the **Religious Fundamentalism Scale**. Based on this analysis the final package of instruments only contains one question to assess religiosity - “**How important is religion in your life**” and this was rated on a scale ranging from *very important, somewhat important, not too important, to not at all important*.

Three main tasks still needed to be accomplished before the instruments were ready for use in the field. Firstly, a questionnaire assessing treatment experiences and a measure of implicit attitudes needed to be developed. Secondly, given the time

constraints of health care workers in busy public clinic or general practice, the series of instruments for the main study needed to be brief as possible. This would be likely to also combat the difficulties noted by other researchers in recruiting medical personnel to participate in social research (Mackdady et al, 2000). Thirdly a measure of affective prejudice must also be included in the assessment. This measure must be based around personal feelings about the target population rather than related to cognitive concerns about the behaviour of HCV+ clients. It may be that the affective measure of prejudice would predict the same relationships as the cognitive prejudice measures (HCV and IDU attitudes scales), however it may also be that the way health care workers feel about IDUs is related to different variables than the cognitive measures of prejudice and this would be important to establish.

Because the split-half reliabilities for each scale were high and similar (IDU even $\alpha=.70$; IDU odd $\alpha = .72$; HCV even $\alpha = .77$ and HCV odd $\alpha = .8$), it was deemed acceptable to run one half of each of the scales with health care workers rather than the full scale. The odd items for both the IDU and HCV scales were chosen as the reliability of each of these was slightly higher and the items appeared more relevant to injecting drug use and hepatitis C. The final attitude to IDU scale consisted of 10 items and the final attitude to HCV scale consisted of 14 items (see Appendix 3).

The **Treatment Experiences Questionnaire** was designed in consultation with the Australian Injecting and Illicit Drug Users League (AIVL), the National Centre in HIV Social Research, meetings with health care workers who worked in HCV sector, and informal meetings with injecting drug users. It consisted of 30 open and closed

questions assessing treatment experiences (for example ‘If you know that a patient is an injecting drug user, do you give them pain relief for a medical condition?’; ‘Do you think an HCV positive patient should be encouraged to disclose their HCV status to health care workers?’; See Appendix 3). To measure worries about the behaviour of their HCV+ clients (ie that they would steal, behave violently and not follow treatment regimes), a **Worry Scale** was created (See Appendix 3). Responses were scored on a three point scale labelled *not a concern*, *a minor concern* and *a major concern*. A measure of contact that health care workers had with clients with HCV expressed as a percentage estimate of the number of HCV+ people attending their clinic/service was also included in this questionnaire. The attitude measure of affective prejudice included in the study was a “**feeling thermometer**” measuring the warmth or coolness felt by health care workers toward IDUs on a scale from 0-100 (see Appendix 3). The question about importance of religion in the health care worker’s life was included amongst other demographic questions (see Appendix 3)

Health care workers: implicit attitude measures

The Implicit Association Test

The most well known instrument used to assess implicit attitudes is the Implicit Association Test (IAT) devised by Greenwald, McGhee and Schwartz (1998). This test has been adapted to measure various attitudes and constructs such as gender bias (Nosek, Banaji & Greenwald, 2002) self esteem and self concept (Greenwald & Farnham, 2000), anxiety (Egloff & Schmukle, 2002), phobias (Teachman, Gregg & Woody, 2001) and depression (Gemar, Segal, Sagrati & Kennedy, 2001). The value of the IAT is that it is an indirect measure of attitudes towards the target concept and is free of the influence of social desirability (Fazio & Olsen, 2003). Additionally,

research indicates that IAT scores cannot easily be faked by participants (Banse, Seise, & Zerbis, 2001; Egloff & Schmukle, 2002). Use of this measure may help address some of the limitations of other research into HCV related attitudes that has largely relied on self-report instruments.

The IAT is designed to elicit the automatic activation of implicit attitudes by assessing the strength of the association between a target concept and a negative or positive attribute (Greenwald et al, 1998). The speed with which an individual categorises stimuli as they appear on a computer screen reflects the compatibility of different concepts. The premise is that response time will be quicker when the same computer key is used for strongly rather than weakly (or negatively) associated concepts. In Greenwald et al (1998) participants were asked to respond to a series of tasks. In the first phase, participants were asked to respond with the left key when a name resembling a white person was presented, and participants were to respond by tapping the right key when a name resembling a black person was presented. In the second phase, respondents were requested to respond to these same keys as a function of whether a positive or negative word appeared on the screen. The critical phase occurred when respondents were asked to respond to black names plus negative words on one key and white names and positive words on another key - termed the compatible trials; and in the second session black names plus positive words on one key and white names plus negative words on another key - termed the incompatible trials. Numerous findings to date indicate that white participants' response times are much faster when black names are paired with negative words than when they are paired with positive words (Greenwald et al, 1998; McGhee, Greenwald & Banaji, 2000; Nosek et al, 2002; Ottaway, Hayden & Oakes, 2001).

Various criticisms of the IAT have been raised. The most salient of these include whether the measurement of associations actually reflects attitudes (Arkes & Tetlock, 2004). Some have argued that IAT scores are really measuring well learned social and contextual associations or concept familiarity rather than negative evaluations (Karpinski & Hilton, 2001), but the findings of other studies suggest that the IAT does appear to measure attitudes (Ashburn-Nardo, Voils & Monteith, 2001; McGhee et al, 2000; Ottaway et al, 2001). Additionally, the IAT has been found to be psychometrically sound – with temporal stability and good predictive, convergent, and discriminant validity (Banse et al; 2001; Cunningham, Preacher & Banaji, 2001; Gawronski, 2002; Greenwald & Farnham, 2000; McConnell & Leibold, 2001; McFarland & Crouch, 2002; Ottaway et al, 2001).

While much work has been done with the IAT to assess attitudes towards stigmatised groups, substantially less research has focused on predicting behaviour from IAT scores (Fazio & Olsen, 2003). Findings regarding the predictive utility of the IAT have been mixed. Some studies have found that that the IAT can predict behaviour and others have not (Egloff & Schmukle, 2002; Karpinski & Hilton, 2001; Marsh, Johnson & Scott-Sheldon, 2001; McConnell & Leibold, 2001; Rudman & Glick, 2001; Sekaquaptewa et al, 2003; Swanson, Rudman & Greenwald, 2001). All of the above mentioned studies were conducted with undergraduate students in a ‘laboratory’ environment. It would be valuable to determine how useful these tests of implicit attitude are in real life situations, and perhaps results would be more consistent. The ability of implicit tests to predict behaviour will have limited value if these cannot be applied to real situations of prejudice and discrimination. Therefore

this research will also address the robustness of tests of implicit attitudes such as the IAT in predicting behaviours outside of the laboratory in more applied settings.

The Single Category Implicit Association Test (SC-IAT)

Recently a new test has been devised to combat another criticism of the IAT. As the IAT is based on comparisons between different concepts, it can only measure the association of attributes of one concept relative to another concept (Greenwald & Farnham, 2000). If one is interested in the associations with a single concept, using the IAT forces the choice of some other concept as a comparison. This can be problematic, for example in the current study when assessing attitudes towards IDUs there is no clear contrasting category as in the case of a Black-White (racial) IAT (Karpinski & Steinman, 2006). Additionally, as Karpinski and Steinman (2006) argue when assessing attribute associations comparatively it is difficult to interpret responses. In the race IAT, for example, do high scores reflect positive White associations or a lack of negative White associations; negative Black associations or no positive Black associations? Karpinski and Steinman (2006) developed the Single Category Implicit Association Task (SC-IAT) which is a two stage task designed to measure associations with a single category.

Similar to the IAT, the SC-IAT involves using response time to assess evaluation of a concept. Firstly, the individual must categorise good words and the attitude concept on one response key and bad words on a different key, and then secondly, this is reversed and bad words plus the attitude object are categorised on one key and good words on another. In a series of experiments they found the SC-IAT to have good validity and reliability, to correlate well with explicit measures of the attitude and in

certain circumstances to be able to predict behaviour. Having only one category also allows for the interpretation of the strength and direction of associations with concepts. One finding in particular suggests that the SC-IAT would be a more useful tool for measuring evaluations of a single concept. In a study assessing self esteem a comparison of IAT and SC-IAT scores revealed that these were not correlated. The authors propose that in a situation where a comparative judgement is not relevant, using another category as in case of the IAT may impact on accurate assessment of the attitude of interest.

The SC-IAT appears to be a better tool to assess health care workers implicit attitudes towards IDUs and IDUs attitudes towards health care workers than the IAT. In each case there is no readily apparent comparative attitude. Additionally, more specific conclusions can be drawn about the nature of these attitudes by using single category associations. The same validity concerns and methodological criticisms levelled at the IAT (see above), can be equally applied to the SC-IAT. However from the limited use of this new tool, correlations with explicit measures and behaviour appear to be greater than with the IAT. As a new tool, the SC-IAT requires more validation. This research would provide an opportunity to use the SC-IAT to see how it works with attitudes towards stigmatised groups, attitudes stigmatised groups form about others, the relationship of these to explicit attitudes and to behaviour in real life settings.

An **IDU SC-IAT** was developed for this study. It consisted of two blocks that were completed by all participants in the same order, as the sample was too small to counterbalance the instrument. Additionally research examining the correlation between the IAT and other measures shows that counterbalancing the order does not affect the size of the correlation (Poehlman, Uhlmann, Greenwald & Banaji, 2005).

Similar to the original design of the SC-IAT, each of the two blocks consisted of a 24 practice trials followed by 72 test trials. The evaluative dimension of ‘I like’ and ‘I don’t like’ was chosen so as to attempt to address one of the criticism of the IAT, that it assesses cultural stereotypes rather than personal feelings. Using the categories of ‘I like’ and ‘I don’t like’ in an IAT instead of ‘pleasant’ and ‘unpleasant’ has been shown to produce lower racial bias and increased correlations with explicit attitudes (Olson & Fazio, 2004). In the first stage stereotypic pictures depicting IDUs were paired with ‘I like’. The **IDU SC-IAT** consisted of 19 pictures. Seven pictures were of pleasant things (e.g. flowers, sunset) and seven pictures were of unpleasant things (e.g. a gun, a snake). Five were of drug users, two females and three males. The pictures showed people engaging in activities associated with drug use (ie holding needles to their arms) and in a context depicting a stereotypic drug using environment (ie crouching in a dark alley way).

HCV positive and negative clients: explicit measures

A series of measures was also developed to administer to hepatitis C positive IDU clients (HCV+) and a control group comprising hepatitis C negative non injecting drug users (HCV-). A separate **Treatment Experiences Questionnaire** was developed for the HCV+ clients and for the control group. The **HCV+ Treatment Experiences Questionnaire** consisted of 34 open and closed questions assessing their experiences of treatment at the facility that they were attending, while the **HCV- Treatment Experiences Questionnaire** consisted of 20 similar questions (See Appendix 4). For the control group questions relating to experiences with HCV were removed. Some of the questions about the way clients were treated by their health

care worker were the same in both questionnaires (eg, “Which of the following concerns do you have when you go and see your health care worker: the staff should be more friendly?”; “The waiting time should be less” etc). These items that were similar in both questionnaires comprised the 8 item **Treatment Experiences Scale** to compare the experiences of HCV+ IDU clients and HCV- clients. Similarly, some of the questions in both client questionnaires were similar to the questions in the health care worker Treatment Experiences Questionnaire (eg. Client –“I should not be made to feel like I am a risk to their safety” and health care worker - “You fear for your personal safety” or client - “I should not be made to feel like I will not be able to follow a treatment plan” and health care worker- “You worry that he/she will not be able to follow a treatment plan”). Additionally some questions relating to HCV were matched in the HCV+ client and health care worker **Treatment Experiences Questionnaires** (eg. Client-“When you go to see your health care worker, how much of your general physical health concerns does your health care worker relate to your being HCV positive? and health care worker - “In your experience, for the average HCV positive patient who is currently or was previously an injecting drug user, how much of their general physical health concerns are related to their being HCV positive?”).

A “**feeling thermometer**” was also devised for administration to HCV positive clients and HCV- clients. This measured the warmth or coolness felt by them toward health care workers on a scale from 0-100 (see Appendix 4).

HCV positive and negative clients: implicit measures

A **health care worker (HCW) SC-IAT** was designed for use with both HCV+ clients and HCV- control clients to assess implicit attitudes towards health care workers.

Similar to the IDU SC-IAT, it also consisted of two blocks that were completed by all participants again in the same order. As in the IDU SC-IAT, each of the blocks consisted of a 24 practice trials followed by 72 test trials. The evaluative dimension of 'I like' and 'I don't like' was used and paired with stereotypic pictures depicting health care workers. In the first stage stereotypic pictures depicting HCWs were paired with 'I like' and in the second block pictures of HCWs were paired with 'I don't like'. The **HCW SC-IAT** consisted of the nineteen pictures. The seven 'unpleasant' and seven 'pleasant' pictures were the same as those used for the **HCW SC-IAT**. Five pictures were chosen of HCWs, three males and two females. These pictures showed people engaging in activities associated with their health care profession (ie scrubbing their arms in preparation for an operation) and in a context depicting a stereotypic medical environment (ie wearing a stethoscope walking in a hospital).

The above measures comprised the package of instruments designed for administration to health care workers and their HCV+ and HCV- clients. To summarise, health care workers received an **Attitude to IDU Scale**, an **Attitude to HCV Scale**, a **Conservatism Scale**, a **Perceptions of the Controllability of IDU Scale**, a **Treatment Experiences Questionnaire**, a **feeling thermometer** and an **IDU SC-IAT**. Both sets of clients of these health care workers were administered a **Treatment Experiences Questionnaire**, a **HCW SC-IAT** and a **feeling thermometer** toward health care workers.

Pre-testing of instruments: health care workers

Before conducting the main study it was necessary to establish whether the research tools would work adequately in the field. The aim of this pre-test, therefore, was to ensure that the content of the questionnaires was clear and unambiguous, and that the instruments did not take participants too long to complete.

Method

Sample

Eight health care workers were recruited to participate in the pre-test study. Four general practitioners and 4 nurses, 6 of whom were female and 2 male. The age of the pre-test sample ranged from 28 years to 57 years.

Materials

The following questionnaires were administered to the pre-test sample: the 14-item **Attitude toward IDU Scale**, the 10-item **Attitude toward HCV Scale** and the 4-item **Perceptions of Controllability of IDU Scale**. For these three items participants responded on a 5 point scale (from *strongly disagree* to *strongly agree*). Conservatism was measured via the **revised Wilson Conservatism Scale** scored on a 3-point scale labelled *yes*, *uncertain*, or *no*, with high scores indicative of more conservative attitudes. Participants were also administered the 30-item **Treatment Experiences Questionnaire**, and the **feeling thermometer** measuring feelings toward IDUs (see Appendix 3). The question on how important was religion to participants was included amongst demographic questions.

A **practice Music SC-IAT** was administered to participants. Prior research suggests that doing a practice SC-IAT with error feedback helps to decrease the error rate for the real SC-IAT (Gonsalkorale, 2005). In the practice SC-IAT participants were asked to classify words describing musical instruments, words describing something pleasant and words describing something unpleasant. The task consisted of two stages each with 24 trials. Participants were told to press the 'e' key if they saw a musical instrument or a pleasant word and the 'i' key if they saw an unpleasant word. In the second stage the task was changed and they pressed the 'i' key if they saw an unpleasant word or a musical instrument and the 'e' key if they saw a pleasant word. Participants received feedback in the form of a red 'X' if their response was incorrect. They would then have to press the correct key in order for the task to resume.

For the main **IDU SC-IAT** task, health care workers were instructed to press the 'e' key on the computer keyboard if they saw a picture of an IDU or a picture of something that they liked and the 'i' key if they saw a picture of something they disliked. In the second block the task was changed so that participants still pressed the 'e' key if they saw something they liked, and pressed the 'i' key if they saw a picture of an IDU or of something they disliked. Participants were instructed to respond as quickly and as accurately as possible. If they took longer than 2000ms to categorise the target word a message appeared for 500ms prompting them to respond more quickly. Similarly if they pressed a key prior to the stimulus appearing a message flashed on the screen for 500ms informing them that they should 'wait for the stimulus.'

Procedure

All of the health care workers were accessed by the researcher during the networking phase of the project. Health care workers were asked to volunteer to participate in the pre-test. As part of the pre-testing phase, they were also asked to comment on the clarity of the instruments as they went through them. All questionnaires were programmed using Media Lab and Direct RT (Jarvis, 2004a; 2004b). The instruments were presented in the following order: **practice Music SC-IAT, 14-item Attitude to IDU Scale, 10-item Attitude to HCV Scale, Perceptions of Controllability of IDU, Conservatism Scale, Treatment Experiences Questionnaire, IDU SC-IAT, IDU feeling thermometer and demographic questions**. Data were collected on laptop and all participants completed the series of instruments at their home or their work office. The researcher was present while each health care worker completed the questionnaires, made notes about the instruments and comments participants made about the scales.

Results and discussion

The pre-testing of the instruments showed that they were too lengthy and it was believed that this would deter health care workers from agreeing to participate. On average it took approximately 30-40 minutes for participants to complete the study. To increase response rates it was felt that the study should take between 15- 20 minutes which is the approximate length of a consultation with a general practitioner. Various changes were made to reduce the length of the questionnaires. The instructions preceding the **two attitude scales** and the **Controllability of IDU Scale** were the same, so only the instructions at the start of these three scales were included. Items that health care workers expressed difficulty in responding to or were not felt to

be relevant to this sample were removed from the **Attitude to IDU Scale** and the **Attitude to HCV Scale**. Three items from the **Attitude to IDU Scale** and five items from the **Attitude to HCV** scale were removed. Reliabilities on the new scales were assessed using the data from the scale validation study outlined in Chapter 4. Based on these data the five items remaining in the new **Attitude to IDU Scale** had a reliability of .55 and the eleven remaining items in the **Attitude to HCV Scale** had a reliability of .72.

Questions were removed from the **Treatment Experiences Questionnaire** to shorten this. One open ended question and three other questions that were considered repetitive were taken out. Additionally six questions that participants identified as problematic were also removed. Two questions assessing how many HCV+ IDU clients health care workers have in their practice/service were added into the questionnaire (one addressed how many were past injectors and the other how many were current injectors). Some questions were modified or clarified after participants commented that they were unclear. The new version of the **HCW Treatment Experiences Questionnaire** consisted of 22 items (see Appendix 5).

In pursuit of brevity, it was also decided to remove the **practice Music SC-IAT**. The benefit of having a practice trial in terms of reducing error rates (Gonsalkarale, 2005) did not appear to outweigh the irritation participants' reported at having to do this task as well as the much longer **IDU SC-IAT**. This is a sample familiar with computers and it was felt that once the requirements of the **IDU SC-IAT** were clearly explained to them, they would not need to complete a **Music SC-IAT**, especially as the **IDU SC-IAT** had a number of practice trials before the real block. A decision was also

made for the main study to verbally explain the **IDU SC-IAT** instructions to participants, firstly because the practice **Music SC-IAT** would now be removed and secondly because it became apparent that none of the participants read the rather lengthy **IDU SC-IAT** instruction pages.

The **IDU SC-IAT** was further modified because of issues raised by participants. Six of the 8 participants felt that the pictures in the **IDU SC-IAT** were very emotive and elicited negative responses from them. They felt that they were reacting to the context of the stimulus rather than to the stimulus itself. Research suggests that automatically activated stereotypes and implicit attitudes, rather than being fixed and immutable, are sensitive to situational cues and the activation of a stereotype can vary depending on the situational context (Karpinski & Hilton, 2001; Wittenbrink, Judd & Park, 2001). For example, Wittenbrink et al (2001) found that exposing White participants to positive or negative stereotypic situations involving Black people influenced participants' responses on the IAT. In a second study these researchers also found that depicting Black people against different backgrounds of a church or street corner influenced the racial attitudes of White participants.

The pictures of injecting drug users in the **IDU SC-IAT** were therefore changed to words (heroin injector, speed injector, cocaine injector) as the stimulus would be less value laden. Twenty words depicting something good, twenty words depicting something bad and five words describing injecting drug users were used. The other change concerned the valence categories, as participants reported being uncomfortable making associations between injecting drug users and the categories "I like" and "I don't like". The benefits of the personalised **IDU SC-IAT** were weighed

against the discomfort participants experienced by using these categories, and it was decided to change the valence category labels from “I like” and “I don’t like” to “good” and bad”.

Conclusion

On the whole the pre-test suggested that the measures worked well with the health care workers. Minor changes were made to the **Attitude to HCV** and **Attitude to IDU Scales** and to the **Treatment Experiences Questionnaire**. Modifications were also made to the **IDU SC-IAT** based on feedback from participants. The length of the entire set of instruments was shortened.

The final package of materials for the health care worker sample in the main study was the 5-item **Attitude toward IDU Scale**, the 11-item **Attitude toward HCV Scale**, the 4-item **Controllability of IDU scale**, the 12-item **revised Wilson Conservatism Scale**, the 22-item **Treatment Experiences Questionnaire**, the **IDU SCIAT**, the **IDU feeling thermometer** and the **demographic questions** (see Appendix 5).

Pre-testing of instruments: HCV positive IDU clients

Method

Sample

Nine HCV+ people who had acquired their HCV from injecting drug use were interviewed, seven women and two men. The age range of the pre-test sample was 25-51 years.

Materials

The following questionnaires were administered to the pre-test sample: a practice **Music SC-IAT**, a **HCW SC-IAT**, a 34-item **Treatment Experiences Questionnaire** and a **HCW feeling thermometer**.

With this population it was felt that it was particularly important that they complete a practice **Music SC-IAT**, especially as they may have had little prior exposure to or experience with computers. The practice **Music SC-IAT** for this population was identical to the one used with health care workers in the pre-test study.

As with the IDU SC-IAT, participants were asked to press the 'e' key on the computer keyboard if they saw a picture of a HCW or of a picture of something that they liked and the 'i' key if they saw a picture of something they disliked. In the second block participants still pressed the 'e' key if they saw something they liked, and pressed the 'i' key if they saw a picture of a HCW or something they disliked. All instructions remained the same as the IDU SC-IAT. Participants were also prompted by a message requesting that they respond more quickly if they took too long and they were

instructed to wait for the stimulus if they pressed a key prior to the stimulus appearing (all time parameters remained the same as in the IDU SC-IAT).

Procedure

The HCV+ IDU pre-test sample was recruited through the peer-run drug user organisation in the Australian Capital Territory. Participants were asked to complete the package of instruments. They were also asked to comment on the clarity of instruments as they went through them. Participants were reimbursed \$20 for their time. All of the questionnaires were programmed using Media Lab and Direct RT (Jarvis, 2004a; 2004b). The instruments were presented in the following order: practice **Music SC-IAT**, **Treatment Experiences Questionnaire**, **HCW SC-IAT**, **HCW feeling thermometer** and **demographic questions**. Data were collected on laptop computer. Participants completed the questionnaires at the offices of the user organisation. As with the pre-testing of the health care worker instruments, the researcher was present while each HCV+ IDU client completed the questionnaires and made notes as about the instruments, transcribed the comments of the participants, and assisted participants with the completion of the instruments.

Results and discussion

The set of instruments for clients was shorter than those given to the health care workers. The pre-test administration confirmed that the duration of the interview was the expected 15 minutes, some participants even completed the measures in 10 minutes. Hence there was no need to modify the length of the instruments for HCV+ clients. Completing the practice **Music SC-IAT** was very important for this sample, as it contributed to participants being able to master the real **HCW SC-IAT**. That

they received error feedback in the practice **Music SC-IAT** also helped ensure they understood the task. The prompting not to respond before the stimulus ensured that they did not just randomly push the *e* or *i* keys. Participants appeared to enjoy completing both the practice **Music** and real **HCW SC-IAT**. The researcher explained it in terms of a computer game, especially to the younger participants and they tried to complete it as accurately and as quickly as possible. As with the health care workers, instructions for the **HCW SC-IAT** were provided orally to participants.

After the pre-test it was decided to also change to pictures of health care workers in the **HCW SC-IAT** to words describing health care workers. Aside from keeping the tasks standard, it seemed possible that if the context of the pictures depicting IDUs had influenced the health care workers, the context of the pictures of health care workers would also influence HCV+ IDU participants. Pictures of health care workers were depicted very differently from the IDU pictures. They were happy and smiling in a very clean sterile environment, contexts that may elicit favourable associations (Wittenbrink et al, 2001). Thus, for this sample as well, it was felt that words describing health care workers would be more value neutral than these pictures.

One modification was made to the **Treatment Experiences Questionnaire** for HCV+ IDU clients. The question “If your health care worker has sent you somewhere to have blood taken, have they told the person taking the blood that you are HCV positive?” was removed, as participants in the pre-test sample were unable to answer this question on behalf of their health care worker. The **Treatment Experiences Questionnaire** for clients now consisted of 33 items (see appendix 6).

Conclusion

Pre-testing suggested that the measures worked well with this sample. They enjoyed completing the series of instruments on computer and commented that the experience was different to other questionnaires they had completed. They remained interested in the task and were happy that the instruments did not take too long to complete. This finding allayed concerns that the researcher had about whether this sample group would be able to do the questionnaires and particularly the SC-IAT on computer.

The pre-test thus illustrated that the sample of HCV+ IDUs could complete the measures and actually enjoyed doing so. The client measures were now ready and the final package of materials for the HCV+ and HCV- clients consisted of the following: the **Treatment Experiences Questionnaire** (33 items for the HCV+ sample and 20 items for the HCV- sample), the practice **Music SC-IAT** and the **HCW SC-IAT**, the **HCW feeling thermometer** and **demographic questions** (see Appendix 6). The only caution to bear in mind for the main study was to include as additional criterion for client participation that individuals would need to be primarily English speaking and literate; otherwise they would be unable to complete the instruments.

CHAPTER 5 – The main study

Method

Sample

Health care workers: The sample for the main study consisted of 60 health care workers. Only medical personnel were interviewed, that is doctors and nurses, as this research focussed on understanding and assessing the medical treatment encounter.

Clients: There were two client groups. These consisted of 120 clients with HCV acquired from injecting drug use and 120 clients without HCV who were not injecting drug users and had never injected drugs. Health care workers and clients were recruited from the same treatment facility.

Recruitment

Recruitment sites were concentrated around the Sydney metropolitan area. Relevant services were identified through networking. The aim was to obtain a range of treatment facilities reflecting different medical experiences not solely restricted to treatment for hepatitis C. The researcher approached directors of these services telephonically and then sent a summary of the research via email and faxed a copy of the relevant ethics approval and the Patient Information and Consent Form. All of the services that the researcher approached were interested in the research and consented to be involved. However one site was not included because it was difficult to access logistically. The researcher then met with the directors to discuss the best strategy to adopt for data collection. Usually this entailed developing a key contact such as a nurse at the facility who would coordinate the data collection.

Health care workers: Health care workers were approached by this key contact and asked to participate in the study. As prior research indicated that it is difficult to get doctors to participate in research, special emphasis was placed on recruiting doctors. Staff were asked whether they would be willing to approach clients meeting the research criteria to see if they would be interesting in participating in the research. While all health care workers agreed to do so, this task was usually given over to staff working at the reception desk with some help from the health care worker interviewed.

Clients: Two strategies were utilised in recruiting clients. Fliers were prepared (see appendix 7), one for HCV+ clients and two different ones for HCV- clients depending on the venue, informing potential participants of the research and providing a contact number. These were placed in the waiting room of the services. The second strategy, which was used more, was that the staff recruited clients who met the research criteria by asking them if they were interested in participating in the research and the referring interested individuals to the researcher. For each health care worker interviewed in a treatment facility, two clients with HCV and two without HCV were also interviewed.

Procedure

Health care workers: Health care workers were administered the **5-item Attitude to IDU Scale** measuring prejudice towards IDUs, the **11-item Attitude to HCV Scale** measuring prejudice to HCV and the **4-item Controllability of IDU** scale measuring how controllable they perceived their clients injecting drug use to be. Additionally health care workers were also given the **12-item revised Wilson Conservatism Scale**, the **22-item Treatment Experiences Questionnaire**, the **IDU SC-IAT**, the **IDU**

feeling thermometer, a question assessing how important religion is to participants and **demographic questions** (see appendix 5 for copies of the final instruments).

During interviewing it was discovered that three of the words in the SC-IAT that were supposed to describe something unpleasant were actually interpreted by health care workers as possibly describing something positive in a health care context. Pictures were trialled in the pre-test of the instruments as opposed to words (refer to Chapter 4), so unfortunately this was not detected prior to data collection for the main study. Hence these three words *suffering*, *regret*, and *sorrow* were changed to the following, *terror*, *harm*, and *violence* after 14 participants had been interviewed. These new words were interpreted negatively by all health care workers¹.

The interview was self-paced on a laptop computer with the interviewer present should the participant wish to ask any questions. Prior to the completion of the IDU SC-IAT, the researcher verbally instructed participants regarding the requirements of the task. Health care workers completed the interview in 15-20 minutes. All health care workers were interviewed individually at the treatment facility during work hours. After completing the interview, health care workers were given a gift or a gift voucher of \$25 dollars.

Clients: As with health care workers, the researcher outlined the research to HCV+ IDU participants (HCV+ group) and HCV- non-IDU control participants (control group). The HCV+ group and the control group completed a practice **Music SC-IAT, a 33-item Treatment Experiences Questionnaire** (HCV+ group) or a **20-item Treatment Experiences Questionnaire** (control group), a **HCW SC-IAT, a HCW feeling thermometer** and **demographic questions** (see appendix 6 for copies of the final

¹ Analyses comparing responses with and without initial 14 health care workers revealed no differences, so all of the data was collapsed.

instruments). The questionnaires and other tasks were individually administered and the interviewer assisted the participant in completing the questionnaire on the laptop. The measures took between 10-15 minutes to complete. The majority of participants were interviewed at the treatment facility they were attending in a confidential space. For those participants who contacted the researcher telephonically to participate in the research, a suitable location was organised to conduct the interview. Participants were reimbursed \$20 for their involvement in this research.

Results

Sample characteristics

Health care workers: The health care worker sample consisted of 4 general practitioners, 20 doctors and nurses from primary health facilities, 1 private specialist, 14 medical staff from liver clinics, 14 from drug and alcohol treatment facilities or drug health departments in hospitals and 7 from residential rehabilitation facilities for drug and alcohol use. Twenty-one health care workers were doctors and 2 were fourth year medical students. The remainder of the sample ($n=37$) were nurses. Of the 23 doctors, 11 were female and 12 male. The nursing staff was predominantly female, $n=29$. The mean age of the health care worker sample was 44 years ($SD = 9.19$).

HCV+ IDU sample and HCV- sample: The HCV+ IDU sample consisted of 68 males and 52 females and the HCV- group had 69 males and 51 females. For the HCV+ group, the mean age was 38 years ($SD = 9.02$), while the mean age of the HCV- group was 39 ($SD = 13.24$). The level of education and main sources of income for the HCV+ and HCV- samples are reported in Tables 2 and 3 below.

Table 2: Level of education for HCV+ and HCV- samples

	HCV+ sample	HCV- sample
Level of education	Percent	Percent
primary school	10.0	5.8
up to year 10	45.0	37.5
up to year 12	16.7	20.8
diploma/trade	14.2	11.7
Attended uni	5.0	10.0
completed undergrad	4.2	9.2
completed postgrad	3.3	3.3
Total	98.3²	98.3³

Table 3: Major form of employment for HCV+ and HCV- samples

	HCV+ sample	HCV- sample
Employment	Percent	Percent
full time work	15.8	22.5
part time	7.5	15.8
Dole	35.8	20.8
disability pension	35.0	34.2
Other	4.2	3.3
Total	98.3⁴	96.6⁵

² Two people did not respond to this question in the HCV+ sample

³ Two people did not respond to this question in the HCV- sample

⁴ Two people did not respond to this question in the HCV+ sample

⁵ Four people did not respond to this question in the HCV- sample

In assessing the demographic characteristics of the two samples it is apparent that they are fairly similar. The HCV- sample had a slightly higher level of education, with the average participant completing their final year of high school, than the HCV+ sample, in which the average was discontinuation between year 10 and year 12, $F(1, 234) = 3.88, p = .05$. The HCV- sample was also more likely to be employed (38%) than the HCV+ sample (23%), $Chi Square = 6.76, p < .01$. None of these demographic variables influenced any of the analyses reported below, and thus they are not reported further.

Treatment scales: HCV+ and HCV- clients

The Treatment Experience Scale consists of 8 items which were similar in both the HCV+ IDU client and HCV- non IDU client Treatment Experiences Questionnaire and hence could be compared (see appendix 8). However, as responses to the Treatment Experiences items were on different scales, the responses of all items were standardised to a 3-point scale. Lower scores on the Treatment Experiences items are indicative of reports of better treatment experiences. The reliability (cronbachs alpha), means and standard deviations of this scale are reported in Table 4.

Table 4: Reliability of Treatment Experiences Scale for HCV+ and HCV- clients

Scale	Reliability	Samples	N	Mean	Standard deviation
Treatment Experiences	.72	HCV +	120	1.45	.43
	.72	HCV –	120	1.26	.25

The means scores of the two groups show that the HCV- clients responded more favourably to questions about their treatment than HCV+ clients $F(1,238) = 17.43$, $p < .001$.

Implicit and explicit (affective and cognitive) attitude and treatment measures and scales: health care workers

Reliabilities and descriptive statistics for the scales used in assessing health care workers' cognitive attitudes to test Hypotheses 1.4 and 1.5 are reported in Table 5. These include IDU prejudice as measured by the attitude to IDU scale, HCV prejudice as measured by the attitude to HCV scale, the measures of conservatism and perceptions of controllability of IDU stigma and the 4 item worry scale measuring health care workers concerns about the behaviour of their HCV+ IDU clients (see appendix 9). The worry scale was scored on a 4 point scale, with lower scores indicating that the health care workers were not that concerned about the behaviour of their clients.

Table 5: Reliabilities of scales administered to health care workers

Scale	N	Reliability	Mean	Standard deviation
IDU prejudice	60	.57	2.14	.52
HCV prejudice	60	.72 ⁶	1.59	.36
Conservatism	60	.71	1.33	.30
IDU Controllability Scale	60	.75	2.19	.74
Worry Scale	59 ⁷	.73	1.62	.47

⁶ Three items were removed from the revised attitude to HCV scale ("Only disgusting people get HCV infection"; "The 'injecting drug plague' is an appropriate way to describe hep C" and "Hospitals and clinics should not refuse to admit patients with hepatitis C infection"), thereby increasing the reliability of this scale from .53 to .71.

To assess the implicit attitudes of health care workers for purposes of addressing Hypothesis 1.1, 1.2 and 1.3, SC-IAT data were analysed according to the IAT scoring procedure created by Greenwald, Nosek and Banaji (2003) and adapted for use with the SC-IAT by Karpinski and Steinman (2006). Accordingly, the practice data elicited in response to block 1 and 3 were eliminated. For the remaining data (block 2 and 4), responses that were less than 350 sec were eliminated from the data set as were non-responses. Error responses were replaced with the mean for that block plus a penalty score of 400ms. Quicker responses were expected on the *compatible* trials, which was the pairing of IDU and bad (block 4) for the IDU SC-IAT and health care worker plus bad (block 4) for the HCW SC-IAT. The score for the SC-IAT data was obtained by subtracting the average response time on the incompatible trials from the average response times on the compatible trials, and dividing this difference score by the standard deviation of all correct response times. Thus lower numbers equalled greater prejudice.

Neither health care worker age nor sex was associated with feeling towards IDUs (affective attitudes), implicit attitudes, conservatism, perceptions of the controllability of IDU stigma, HCV prejudice or IDU prejudice, $p's > .20$. However there were differences in some of the dependent variables as a function of whether the health care workers were doctors or nurses (see Table 6)

⁷ One health care worker did not complete the scale

Table 6: Differences among nurses and doctors

	Total sample N=60	Nurses N=37	Doctors N=23	Significance
Contact with HCV clients	M=54.03 (SD=28.7)	M=60.75 (SD=29.60)	M=42.83 (SD=24.49)	$F(1,57)=5.86$ $p<.01$
Feeling thermometer (Feeling towards IDUs)	M=62.98 (SD=19.40)	M=67.95 (SD=20.43)	M=55.00 (SD=14.78)	$F(1,58)=6.96$, $p<.05$
Implicit attitude SC-IAT	M=-.36 (SD=.42)	M=-.46 (SD=.38)	M=-.20 (SD=.45)	$F(1,57)=5.47$, $p<.05$
Conservatism	M=1.339 (SD=.30)	M=1.39 (SD=.28)	M= 1.308 (SD=.33)	$F(1,58)=.40$, $p>.50$
Controllability of IDU stigma	M=2.19 (SD=.74)	M=2.28 (SD=.82)	M=2.03 (SD=.59)	$F(1,58)=1.64$, $p>.20$
HCV prejudice	M=1.48 (SD=.42)	M=1.50 (SD=.41)	M=1.45 (SD=.44)	$F(1,58)=.21$, $p>.60$
IDU prejudice	M=2.14 (SD=.52)	M=2.07 (SD=.54)	M=2.26 (SD=.48)	$F(1,58)=1.92$, $p>.15$

Recall that contact was measured as a percentage of the number of clients who were HCV positive and feelings towards IDU or affective attitudes were measured on a ‘thermometer’ of 0-100 degrees. As depicted in Table 5, it is evident that for the majority of the health care worker sample over half of their clients were HCV positive, with nurses having a bigger HCV+ caseload than doctors. On the feeling thermometer measure, overall the health care workers reported positive feeling towards their HCV+ clients, with nurses reporting significantly more positive feelings than doctors. Data in Table 5 shows that health care workers had negative implicit attitudes towards their HCV+ clients and in this instance it was the nurses rather than the doctors, who showed significantly more negative implicit attitudes toward these clients. The Conservatism scale was answered on a 3-point scale with high scores indicative of more conservative attitudes. The Perceptions of Controllability of IDU Scale, the Attitude to IDU Scale (measuring prejudice toward IDU) and the Attitude to HCV Scale (measuring prejudice

toward people with HCV) were all scored on a five point scale with high scores indicating more negative attitudes. On the whole health care workers did not show very conservative attitudes, nor did they see the injecting drug behaviour as highly controllable. Similarly while these health care workers did seem to show more negative attitudes towards IDUs than towards people with HCV, which is what would be expected (Day et al, 2003), in general the health care workers did not show very negative attitudes towards IDUs or HCV as measured by these scales. Additionally there were no differences in attitudes between doctors and nurses on the measures of conservatism, controllability of IDU, prejudice to IDU or prejudice to HCV.

Explicit and implicit attitudes of health care workers towards their HCV+ IDU clients

Given the current emphasis on decreasing HCV related discrimination amongst health workers, it was hypothesised that health care workers' explicit attitudes, in this case meaning their affective attitudes to their HCV positive IDU clients, would be different to their implicit attitudes (Hypothesis 1.1) and would not be prejudicial (Hypothesis 1.2), while more entrenched prejudice would be displayed in their implicit attitudes (Hypothesis 1.2). Additionally it was also hypothesised that negative implicit and positive explicit attitudes of health care workers toward their HCV+ clients would independently influence the way they treated their HCV+ clients (Hypothesis 1.3).

The data in Table 5 confirms Hypothesis 1.1, 1.2 and 1.3. Health care workers had different implicit and explicit (affective) attitudes towards their HCV+IDU clients. As predicted, SC-IAT analyses revealed that health care workers showed negative implicit attitudes ($M = -.36$, $SD = .42$) towards their HCV+ IDU clients, with this mean response

significantly different from zero, $t(59) = -6.71, p < .001$. In contrast, their explicit affective attitudes were positive ($M = 62.77, SD = 19.31$) as illustrated in the finding that this value was greater than the feeling thermometer scale midpoint of 50, $t(59) = 5.18, p < .001$. However contrary to the prediction of Hypothesis 1.3, neither the health care worker SC-IAT scores nor their feeling thermometer scores predicted their HCV+ clients' treatment experiences. The SC-IAT scores of health care workers were also not correlated with any of their other cognitive attitude measures (i.e. conservatism, HCV prejudice, IDU prejudice and perceptions of controllability of IDU stigma).

Explicit and implicit attitudes of HCV+ IDU clients and HCV- clients toward their health care workers

In terms of HCV+ IDU clients it was predicted in Hypothesis 1.6 that both the explicit and implicit attitudes of these clients regarding their health care workers would be negative and would predict treatment experiences. However, contrary to expectations HCV+ IDU clients showed favourable implicit attitudes toward health care workers ($M=.14, SD=.33; t(117)=4.46, p<.001$), as did HCV- participants ($M=.12, SD=.29; t(113)=4.38, p<.001$). There was no difference in the implicit attitudes of the two client groups towards their health care workers, $F(1,230)=.24, p>.24$. Also contrary to predictions, the explicit attitudes of both HCV+ and HCV- clients were also significantly greater than the scale midpoint of 50 ($M=71.63, SD = 20.04; t(119) = 11.82, p<.001$, and $M=80.05, SD= 15.90; t(119)=20.82, p<.001$, respectively). Despite both groups feeling positively towards their health care workers, the difference in HCV+ and HCV- clients' explicit attitudes towards health care workers was itself significant, $F(1,238)=13.07, p<.001$. In other words, while both groups showed positive attitudes towards their health care workers, the attitudes of their HCV+ group were less

favourable than those of the HCV- group. Furthermore, these differences in client attitudes predicted differences in treatment experiences ($r = .41, p < .001$).

Despite the finding that client attitudes towards their health care workers as measured by the feeling thermometer and the SC-IAT were positive, responses to an open ended question that asked participants if they felt a doctor's attitudes would change once they had disclosed their history of injecting and HCV status, yielded a different finding.

Fifty-three of the 120 HCV+ clients responded that the doctor's attitude would change and that it would become more negative towards them. Furthermore these participants felt the attitude of doctors would be influenced by the stereotypes that they hold about injecting drug users. This, participants perceived, would then influence the way doctors behaved towards them and lead to discriminatory treatment. These beliefs are illustrated in the following comments:

‘they look at you different and they treat you different. I went to find a new doctor and they turned me and my partner away because we told them we have HCV and we are on methadone. I don't think this is fair as we are still human beings. I think a lot of doctors when they find out you are on methadone they think “just another junkie”’. (Participant 46b)

‘Once I tell them I have HCV, they ask personal questions on how I got it and that makes me uncomfortable. I tell them the truth sometimes, but other times I think it has nothing to do with them. They want to know that I am an injecting drug user, and I feel that they discriminate against me because they know this about me. I feel they do not take my complaints seriously sometimes. When they know I've injected myself, I feel like they have been rough with me when they take blood from me or put needles in my arms. Some doctors have even let me do it (inject) myself.’ (Participant 27b)

Participant responses to this open ended question were also coded into the following categories, *it depends on the doctor* (n=7), *the doctors' attitude changes to become more negative* (n=53) and *no comment* (n=60). The categories of *it depends on the doctor* and the *doctors attitude changes to become more negative* were collapsed for the purposes of analysis. Analysis of this data shows that HCV+ participants who stated that the doctor's attitude would change were also more likely to be seeing a health care worker for whom there was greater evidence of discrimination between HCV+ and HCV- clients ($r(60) = .37, p < .005$). Regression analysis further illustrated that this relationship was independent of the feelings of HCV+ clients toward their health care workers, as measured by the feeling thermometer. That is when treatment differences were regressed on participants' reports that doctors' attitude would change and on the feeling thermometer scores, treatment differences were predicted by perception of attitude change ($\beta = .30, p < .05$) as well as clients' reported feelings towards health care workers ($\beta = -.27, p < .05$)⁸.

Health care worker attitudes and contact with HCV+ clients

Substantial research shows that increased contact with members of a stigmatised group decreases prejudice (Herek & Capitanio, 1996; Werth & Lord, 1992). The current study addressed the issue of contact by asking health care workers to cite a percentage estimate of their clientele who were HCV+ (M=54.03, SD=28.7) . The aim was to establish whether health care workers who saw more people with HCV had more favourable attitudes towards HCV+ people than those who had fewer HCV+ clients.

⁸ When health care workers' treatment of HCV clients rather than treatment differences were regressed on the open ended perception of change scores ($\beta = .29, p < .05$) and on the feeling thermometer toward health care workers ($\beta = -.18, p < .05$), the same effect emerges.

Correlational analyses indicated that increased health care worker contact with clients who had HCV was associated with more positive explicit feelings towards injecting drug users ($r(60) = -.33, p = .01$) as measured by the feeling thermometer. Unexpectedly, increased contact was also associated with more negative implicit attitudes towards injecting drug users ($r(60) = -.28; p < .05$).

Because more conservative health care workers may choose to have less contact with people with HCV, it was important to assess whether the relationship between contact and prejudice would remain when controlling for variations in conservatism.

Partial correlations controlling for conservatism revealed that contact predicted explicit and implicit attitudes towards IDUs beyond the effect of conservatism (see Table 7).

Further, contact was unrelated to any of the other variables.

Table 7: Correlations and partial correlation controlling for conservatism

	Correlation with contact	Partial correlation with contact
Feelings towards IDUs	.33**	.35**
Implicit attitude toward IDUs	-.28*	-.28*
Controllability of IDU stigma	-.19	-.22
HCV prejudice	-.15	-.16
IDU prejudice	-.25	-.28*

* $p < .05$, ** $p < .01$, *** $p < .001$

HCV+ IDU clients' attitudes towards their health care workers and health care worker contact with HCV+ clients

For HCV+ IDU clients, greater health care worker contact with HCV+ clients was also associated with more positive explicit attitudes towards health care workers on the part of the clients as measured by the feeling thermometer, but not with more positive implicit attitudes (see Table 8).

Table 8: Client attitudes and health care worker contact

	Correlation with health care worker contact	Partial correlation controlling for conservatism
Feelings towards health care workers	.29*	.30*
Implicit attitude	.08	.09

* $p < .05$, ** $p < .01$

Greater health care worker contact with HCV+ clients was not correlated with client treatment satisfaction ($r(59) = .14, p > .30$).

Health care workers' attitudes to HCV+ IDU clients and their impact on treatment

As can be seen in Figure 1 in Chapter 4, this study predicted (Hypothesis 1.4) that health care workers who are more conservative would show more prejudice towards their HCV+ IDU clients. This effect of conservatism was predicted to be mediated by the perception that client injecting drug use is controllable. Health care workers who showed more prejudice towards HCV+ IDUs were then expected to be more worried

about their HCV+ clients' behaviours, and these worries in turn were expected to predict discriminatory treatment (Hypothesis 1.5).

Because HCV+ and HCV- clients were matched to a health care worker, the best way to analyse such nested data to establish the relationship between health care worker attitudes and client treatment experiences is through multilevel modelling. However use of this statistical technique with these data was unsuccessful as the outcome treatment variable was negatively skewed, thus violating an assumption of maximum likelihood estimation. As a consequence, the multilevel model resulted in parameter estimates that were outside of logical bounds.

Hence the data were analysed with regression-based path analysis using treatment differences score obtained from the HCV+ and HCV- samples as the criterion variable. This difference score was created by subtracting the responses of the HCV+ clients to the treatment experiences scale from those of the HCV- sample on the same scale, as higher scores were indicative of greater discrimination against the HCV+ sample. Prior to the path analysis, bivariate correlations were computed for all the variables in the analyses, and these are reported in Table 9.

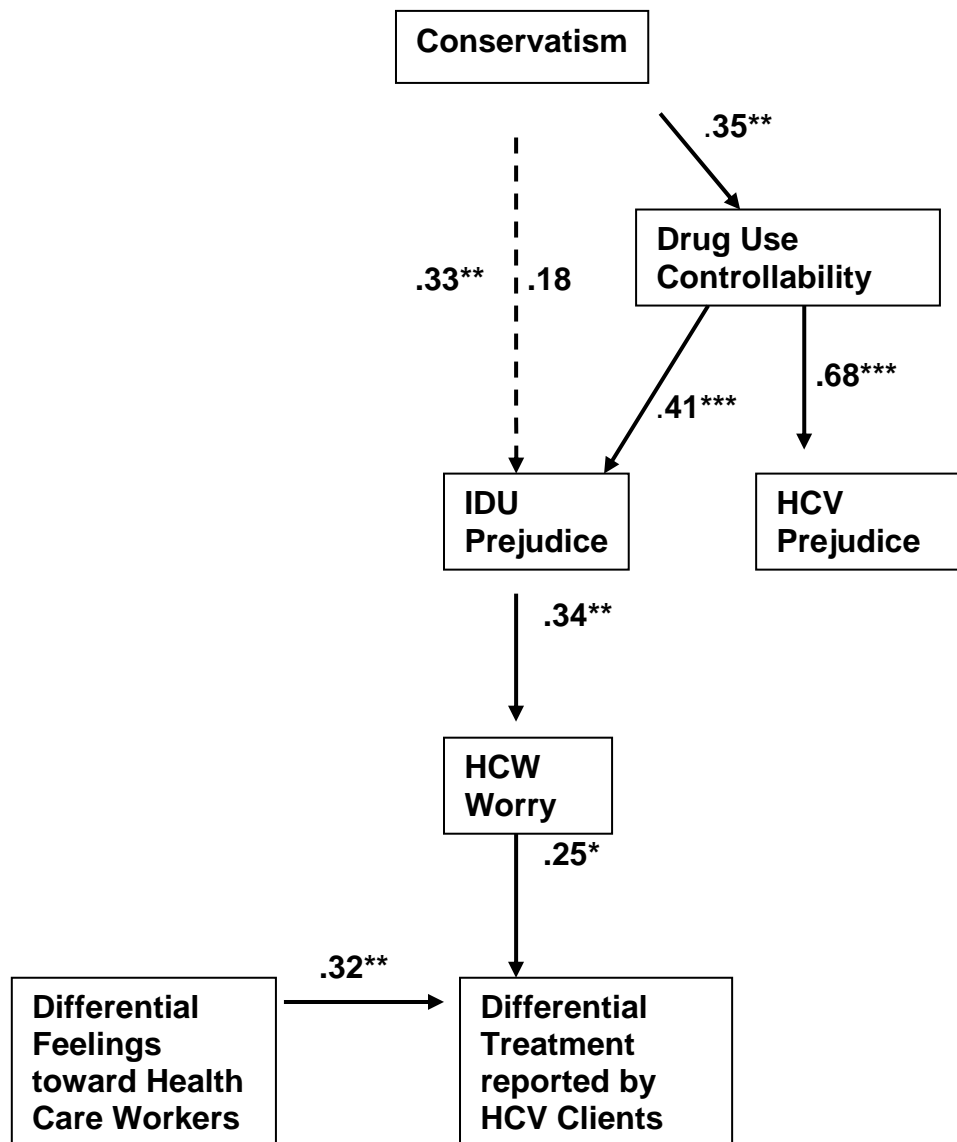
Table 9: Bivariate correlations

	Conserv	Control of IDU stigma	IDU Prejudice	HCV Prejudice	HCW Worry Scale	Client Treatment difference scores	Feeling therm. difference scores	HCW Feeling therm. towards IDUs
Conserv	1	.35**	.33*	.15	.15	.12	.17	-.15
Control of IDU stigma	.35**	1	.48***	.61***	.11	.02	.21	-.20
IDU prejudice	.33**	.48***	1	.47***	.34**	.16	.20	-.30*
HCV prejudice	.16	.68***	.50***	1	.05	-.00	.14	-.16
HCW Worry scale	.15	.11	.34**	.03	1	.28*	.09	-.25*
Client treatment difference scores	.12	.02	.16	-.03	.28*	1	.34**	.01
Client Feeling therm. difference scores	.17	.20	.20	.05	.09	.34**	1	-.06
HCW Feeling therm. towards IDUs	-.15	-.20	-.30*	-.15	-.25*	.01	-.06	1

* $p < .05$, ** $p < .01$, *** $p < .001$

Consistent with predictions in Hypothesis 1.4 and Hypothesis 1.5, the path analysis indicated that conservative health care workers showed more prejudice towards IDUs, and that this prejudice was mediated by perceptions of controllability of injecting drug use (sobel test, $z=2.21$, $p<.03$). Conservative health care workers also showed more prejudice towards HCV+ clients but as hypothesised this prejudice was not predictive of anything else. The prejudice toward IDUs displayed by these more conservative health care workers was then related to worry about the behaviour of IDU clients. This worry on the part of health care workers was associated with differences in treatment experiences reported by HCV+ clients compared to HCV- clients. Furthermore, worry about client behaviour predicted treatment differences independent of the clients' feelings toward health care workers (see Figure 2).

Figure 2: Health care workers' and HCV+ clients' attitudes toward each other and treatment experiences



Supplementary analysis

Several questions in the Treatment Experiences Questionnaire failed to yield consistent findings, and thus are reported in this section.

Health care workers: ‘Where do you think an HCV+ patient should be placed on an operating list’ was designed to elicit discrimination based on whether health care workers felt that a HCV+ client should be operated on at the end of the day (so no one else could be infected from this patient) rather than in the order in which they were booked in (on the premise that all equipment are adequately sterilised after a procedure). Responses indicate a degree of variability, such that 28% of the sample stated that HCV+ patients should be the last patient of the day, while 58% felt that participants should be operated on in the order in which they are booked. Two people chose the arbitrary category of ‘the first patient of the day’, one person chose ‘other’ and 5 participants did not respond. Although there was variability in responses, this variability was not related to any other measures in the study and thus may have had more to do with perceptions of the adequacy of the sterilisation procedure. In other words health care workers who were more conservative or less likely to have positive attitudes towards their HCV+ clients or who showed greater discrimination were not more likely to feel that clients who are HCV+ should be operated on last.

Health care workers were also asked whether they felt that HCV+ clients should be encouraged to disclose their HCV+ status to their health care worker. Fifty two percent felt that the client should always disclose and 35% felt that they sometimes disclose. Correlational analyses revealed that those health care workers who believed that their clients should disclose their status were more likely to show prejudice towards injecting

drug users ($r(60) = -.26, p < .05$). However further analyses of this relationship did not show any associations to other variables in the model described above.

While religiosity was correlated with conservatism ($r(60) = -.55, p < .001$), it was not correlated with any other variables and hence is not included in the model reported above. Religiosity was only measured as a single item so perhaps a more robust measure of this concept may have yielded associations between this variable and the other variables in the model.

A final health care worker item that was not included in the main model assessed perceptions of the influence of the clients' attitude on the health care encounter. Health care workers were asked whether they worry that their behaviour might be interpreted by HCV+ clients as evidence of discrimination. Twenty five percent of health care workers answered that this was a minor concern and 73% felt that this was not a concern at all. One person answered that it was a major concern. This concern about how their behaviour would be interpreted was positively correlated with the worry scale ($r(60) = .43, p = .001$) and negatively related to the feeling thermometer ($r(60) = -.31, p < .05$). These relationships illustrate that those health care workers who had more positive feelings towards injecting drug users were less likely to feel that their behaviour may be interpreted as discriminatory. In contrast those health care workers who were more likely to worry about the behaviour of their client were also more likely to worry that their behaviour would be seen by the client as evidence of discrimination. Nevertheless, this item failed to be associated with other variables in the model.

Items not analysed

Some items from the treatment experiences questionnaire for both health care workers and clients were not included in the final analysis due to problems with the measures.

This section briefly highlights which data were not analysed and why this is the case.

Health care workers: During the interviews, the following question in the health care worker treatment experiences questionnaire was noted as problematic ‘If you know that a patient is an injecting drug user, do you give them pain relief for a painful medical condition?’ Many of the nurses when completing the questionnaire commented that they were unable to prescribe medication. Despite this, 44 participants (even though there were only 21 doctors in the sample) responded that they would always give medication and a further 11 respondents noted that they sometimes gave pain relief. Hence it is highly likely that participants were responding based on what they thought they would do if they were able to prescribe, rather than based on what they actually did. For this reason this item was not included in the analysis. Another question for which responses were not analysed focused on how health care workers gave a HCV+ test result to their client. Eighty three percent responded that they would tell the results in person, and thus there was too little variability for meaningful analysis of these responses.

HCV+ IDU clients: Similarly with the client treatment questionnaire, a few questions were not analysed. A series of four questions was asked of HCV+ clients regarding whether they felt that their physical health concerns were (1) perceived by their health care worker to be caused their injecting drug use (2) perceived by their health care worker to be caused by their hepatitis C; and whether their mental health concerns were (3) perceived by their health care worker to be caused by their injecting drug use

(4) perceived by their health care worker to be caused their hepatitis C. While administering the four questions it seemed that clients were unable to concentrate appropriately on the question after being asked the first question, especially as the four questions were so similar. Consistent with this perception, only responses to the first question were correlated with clients' reported feelings towards their health care worker ($r(113)=.25, p<.01$). Responses to the other three questions were not correlated with any other variables and may not have been properly understood.

CHAPTER 6 – Discussion and conclusions

There are several findings that have come out of this research and each of these is summarised below. Firstly, the study has led to the development of scales to measure attitudes to IDUs and to HCV. Importantly these scales are not restricted to use with health care workers, but can be used with other populations and hence have widespread applicability. Secondly, as predicted, health care workers were found to have negative implicit attitudes and positive explicit attitudes towards HCV+ clients; however these were not related to treatment experiences reported by clients. Thirdly, although the attitudes of HCV+ IDU clients towards their health care workers were positive, they were still less favourable than the attitudes of HCV- clients, and HCV positive clients were also less satisfied with their treatment. Fourthly, more conservative health care workers showed more prejudice towards their HCV+ IDU clients because they believe that injecting drug use is under the control of the individual. This prejudice toward IDUs, in turn, was associated with increased worry about the behaviour of the HCV positive clients, which resulted in differences in the way health care workers treated their clients with HCV. Finally the data show that increased contact with HCV+ clients is associated with more positive explicit attitudes but also with more negative implicit attitudes. All of these findings are discussed in more detail below.

The development of scales to measures attitudes to IDU and HCV

Prior to the current research, no valid and reliable scales exist to measure attitudes to IDUs and people with HCV. In this study new scales were validated and used to

assess health care workers attitudes to IDUs and HCV. The results of this study indicate that these new scales appear to be reliable and valid. In the scale validation study the new measures showed good split-half reliability, only slightly lower than the reliability of the pre-existing scales on which they were based. The new scales also showed convergent validity in that they correlated with scales measuring attitudes to a similarly stereotyped population, homosexuals, and a similarly stigmatized illness, HIV/AIDS. Additional support for the validity of the scales is illustrated in their correlation with conservatism, religiosity, and perceptions of the controllability of the stigma, all of which are known predictors of negative attitudes towards homosexuality and towards HIV/AIDS, and all of which are theoretically relevant to attitudes toward IDUs and HCV.

With increasing attention being paid to stigmatization of and discrimination toward people with HCV, the current scales provide a needed measure for assessing attitudes toward IDUs and HCV. Valid and reliable research tools are important in assuring the quality of research, while also allowing for different data sets to be compared. The current results suggest that these new scales enable measurement of the feelings of health care workers and others who work closely with IDUs and people with HCV. At a practical level, the brevity of these scales suggests that they should be widely useful in the field. One of the problems recorded in social research with medical personnel is low response rates (Barclay, Todd, Finlay, Grande & Wyatt, 2002; Mackdacy, 2000; Templeton et al, 1997). Scales that are brief and easy to administer may combat some of these recruitment difficulties. Nevertheless, the questionable reliability of the highly shortened form of the Attitudes toward IDU Scale suggests that it might be wise to use the full 10-item version of this scale until the reliability can be more

thoroughly established with the shortened subscale. Finally, it should also be noted that these scales are not restricted to use with health care workers, but rather have wide-spread applicability and can be used with different types of populations to assess prejudice toward people with HCV (although explanation of the illness might be required, as was the case with the undergraduate sample).

Health care worker attitudes, client attitudes and the relationship to client treatment experiences

Research into health care workers' attitudes towards people with HCV has found prejudice and discrimination towards this group of clients among health care workers (Anti-Discrimination Board of NSW, 2001; Hopwood & Kippax, 2001). The current study presents a picture that is in some ways similar and in some ways different to past findings. In this study, health care workers reported positive attitudes towards their clients with HCV, and clients showed positive reported attitudes towards their health care workers. Nevertheless, despite the overall findings of favourable attitudes of HCV+ IDU clients toward their health care workers, they still reported less satisfaction with and less positive attitudes to their health care workers than clients without HCV. This finding is significant because both the HCV+ and HCV- clients were attending the same treatment facilities and seeing the same service providers. Hence this study is the first to match HCV+ IDU clients and HCV- non IDU clients to the same treatment facility and compare their treatment experiences.

The positive attitudes of HCV clients towards their health care workers found in this study may be a product of various factors. As noted in Chapter 2, ever since the release of C-Change, the report of the Anti-Discrimination Committee of NSW, in

2001 there had been a focus on decreasing HCV related discrimination amongst health care workers. The National Hepatitis C Strategies 1999-2000 to 2003-2004 and 2005-2008 has as one of the main aims the prevention of discrimination and reduction of stigma associated with HCV (Department of Health and Aged Care, 2000; 2005; Levy, Baum & Thomas, 2002). Health care workers may have recently become more aware of the way they relate to their clients with HCV and may be attempting to behave in a less discriminatory manner.

A further consideration is that the data were collected in the Sydney metropolitan region. Sydney has the greatest concentration of injecting drug users and people with HCV in Australia (Hall, Ross, Lynskey, Law & Degenhardt, 2000; National Centre in HIV Epidemiology and Clinical Research, 2005). Staff working at alcohol and drug facilities in metropolitan Sydney are more likely to have experience with these populations and with HCV, and to have had training to deal with HCV+ people sensitively and sympathetically. Results may have been quite different if the sample had included regional or rural sites in New South Wales. However in stating this, it must also be noted that the findings revealed that there was no difference in treatment as a function of contact. In other words health care workers who had a bigger HCV+ caseload did not treat their HCV+ patients better than those who saw very few HCV+ clients. So, the other possibility is the attitudes of health care workers are not as negative as originally anticipated, which may or may not reflect a change in attitude among health care workers in recent years.

A final point to note in this regard is that the attitudes of HCV+ clients towards their health care providers could have been influenced by the context in which data were

collected. As a result of the recruitment strategy whereby appropriate clients were referred by health care workers, clients were mostly interviewed at the treatment facility. This association between the research and the treatment facility may have led clients to feel compelled to give a favourable account of their health care workers and their treatment experiences. Despite these concerns, the data still show a pattern of differences in the reported treatment of HCV- and HCV+ clients by their health care workers. This raises the possibility that should such research be conducted in more conservative or rural centres in Australia and if the location of interviewing were removed from an association with the health care workers, the differences between the two populations may be even greater.

Indeed, responses to the open-ended question, assessing whether participants felt that a doctor's attitude would change once they learnt about the patients' HCV status and current injecting use, may also support this conclusion. Almost half of the sample anticipated a negative attitude shift on the part of the health care worker after this information had been disclosed to them. Thus, when the question was posed in a more abstract form rather than in relation to their current health care worker, it generated a more negative response from participants. While this finding may suggest that the context of interview influenced client response, it may also indicate that the current health care experiences of clients are relatively positive. So, while some of these clients with HCV may have had past negative experience of prejudice and discrimination from other health care professionals, they may have subsequently learnt to shop around for health care workers who do not discriminate against clients with HCV.

Conservatism, perceptions of controllability of IDU and behaviour of health care workers towards HCV+ IDU clients

Prior research has identified that both conservatism and perceptions of controllability of stigma are related to prejudice (Herek, 2002; Herek & Capitanio, 1996). The results of this study support and extend these conclusions and further suggest that perception of controllability of stigma is the crucial variable in understanding prejudice towards people with HCV. The current data show that conservative health care workers are more prejudiced towards IDUs only to the extent that they see the stigma as under the individual's control. In other words the difference between liberal and conservative health care workers hinges on how controllable health care workers perceive injecting drug use to be. The attributions people make about stigmas are critical and prior research shows that when a stigma is seen as controllable, this elicits less pity, less concern and less helping behaviour toward members of the stigmatised population (Weiner, Perry & Magnusson, 1988, Menec & Perry, 1998). Those health care workers in the present study who perceived the injecting drug use of clients as under their control showed greater prejudice towards injecting drug users, and this prejudice was associated with increased concerns about the behaviour of clients with HCV, which then influenced the way they treated their HCV+ IDU clients.

These findings have important practical implications. While it may be difficult to change how a stigma is perceived in terms of the controllability, and hence very difficult to design an intervention to target this link in the presumed causal chain, it may be possible to address health care workers' concerns about their clients' behaviour and how their concerns influence treatment. Making health care workers aware that they worry about the behaviour of their clients with HCV, and that this

worry leads to differences in the way they respond to these clients, may present as a useful point of intervention. This knowledge could provide a tangible focus for health care workers when relating to HCV+ clients and when trying to behave in a less discriminatory fashion. It is also important to acknowledge that some of the worries that health care workers have in relation to their clients with HCV may of course be genuine concerns. For example, for clients who are still injecting drugs it may be more difficult to follow a treatment regimen than for those clients who have never injected drugs. In this instance health care workers may offer IDUs with HCV different treatment to other clients because of reasonable concerns. Other literature has noted similar concerns that health care workers may have about HCV+ IDU clients as a result of lifestyle issues associated with injecting drug use, for example an inability to adhere to treatment, a lack of stable psychosocial environment and limited emotional supports (Aloisi et al, 2002; Clarke et al, 2003; Sylvestre, 2003; Zweben, 2001). Health care professionals may also have worries that are based in personal experience, regarding threats to safety, theft and violence in relation to this population. For health care workers, knowing that possible discriminatory behaviour may be influenced by these very real concerns may also lessen the burden of guilt that they may feel. This is especially relevant given that the health care profession has come under attack since the findings of the Anti-Discrimination Committee (2001) regarding prejudice and discrimination towards HCV+ clients.

The impact of these concerns of health care workers regarding their HCV+ clients' behaviour on client treatment experiences has not previously been identified. This information may be useful to include in interventions and education sessions for health care workers who have clients with HCV. In so doing it would also give health

care workers a forum to air their concerns about their clients and to understand how these concerns influence treatment. Assessing HCV+ IDU client behaviour that may be of concern to health care workers was only one aspect of this research. As a result the worry scale consisted of only four items. Future research could address these health care workers worries about client behaviour in more depth, for example using focus groups to understand what the key areas of concern are for health care workers in relation to the behaviour of their HCV+ IDU clients. Such expansion of the worry scale could lead to a more robust measure of health care worker worry and greater understanding of how these concerns impact on treatment experiences.

Health care worker implicit and explicit attitudes and contact

The current study assessed the relationship between contact and prejudicial attitudes of health care workers towards their HCV+ clients. Since Allport's (1954) original assertion that contact between groups under certain optimal condition reduces prejudice, a large body of research in social psychology has continued to support this conclusion (Pettigrew & Tropp, 2006). In relation to stigmatised groups, studies show that greater contact with a stigmatised population is associated with less negative attitudes towards that population (Herek & Capitanio, 1996). This has also been found with health care workers and people who are HIV positive (Bermingham & Kippax, 1998). Consistent with these findings, in the current research health care workers who saw more clients with HCV had more favourable explicit attitudes towards injecting drug users than health care workers whose HCV+ client base was small.

This relationship between greater contact and favourable explicit attitudes amongst health care workers appears to be a positive finding. It shows that health care workers

who have a big caseload of HCV+ clients have more favourable attitudes towards their clients. Additionally increased health care worker contact impacted on clients' attitudes towards their health care workers. HCV+ clients who attended services where there were more HCV+ people reported more favourable attitudes towards their health care workers than clients who went to services where there were few people with HCV. However increased health care worker contact with HCV clients was not related to treatment experiences. HCV+ clients reported that they were less satisfied with the treatment that they received than their HCV- counterparts and this difference was not moderated by contact. In other words those HCV+ clients who attended facilities that attracted a higher number of HCV+ clientele did not have more positive treatment experiences than HCV patients who attended services which were not frequented by many people with HCV.

In contrast to these findings with explicit attitudes, health care workers who have more contact with people with HCV also showed less favourable implicit attitudes toward IDUs. Only two other studies have assessed the influence of contact on implicit attitudes. A study by Olsson, Ebert, Banaji and Phelps (2005) showed that a conditioning bias to fear outgroup members decreased when participants had dated members of that outgroup. Similarly Rudman, Ashmore and Gary (2001) found that in their sample of students, those who reported making friends with members of the outgroup showed a decrease in implicit stereotyping. As would be expected, these results imply a positive effect of contact on implicit attitudes. However the present study found a different pattern of negative implicit attitudes associated with contact. This finding warrants further investigation as it raises interesting questions. Why do health care workers who have positive explicit attitudes also have negative implicit

attitudes? Do these negative implicit attitudes predate contact or do they develop over time and with increased contact?

Herek and Capitanio (1996) have shown that people who are prejudiced avoid contact with stigmatised outgroups. Hence it is highly likely that people who choose to work with injecting drug users are those who are liberal-minded and non-prejudicial from the outset. However self reported positive attitudes do not necessarily mean that people no longer hold negative biases towards the stigmatised group. Negative attitudes may still exist and continue to manifest in more subtle ways (Gaertner & Dovidio, 2000). The theory of dual attitudes would suggest that these health care workers may simultaneously hold positive explicit attitudes and negative implicit attitudes towards the target group (Wilson et al, 2000). According to this theory, the positive explicit attitudes are based on a non prejudicial personal outlook toward IDUs and people with HCV. These explicit attitudes could also be influenced by the policy call to decrease discrimination in the health care sector. On the other hand, the negative implicit attitudes of these health care workers may represent the more entrenched negative views that society holds towards the highly stigmatised behaviour of injecting drug use.

Research that has found differences in explicit and implicit attitudes towards different groups supports the above assumptions (Dasgupta, McGhee, Greenwald & Banaji, 2000; Fazio et al., 1995; Greenwald et al, 1998; von Hippel, Sekaquaptewa, & Vargas, 1997), although there are also findings that show similarities in implicit and explicit attitudes (Banse, Seise & Zerbes, 2001; Cunningham, Preacher & Banaji, 2001; Wittenbrink, Judd, & Park, 1997). In assessing conditions that increase

associations between implicit and explicit attitudes, Nier (2005) found that as the motivation to accurately report an implicit attitude increased, the implicit-explicit attitude dissociation of participants decreased. For health care workers, expressing negative attitudes towards a client group may be perceived as morally reprehensible. So even if health care workers do hold negative explicit attitudes towards injecting drug users, they may be very unlikely to express them. However their unconscious negative attitudes towards this group may still exist (Gaertner & Dovidio, 2000; Wilson et al, 2000). In this instance it is possible that the more health care workers express favourable explicit attitudes, the less likely it is that their implicit attitudes will resemble their explicit attitudes (Nier, 2005). Another possibility relates to the difficulty to self regulate and control implicit attitudes in situations of ego depletion or cognitive overload (Gavorun & Payne, 2006). As health care workers continue to work in busy clinical practices with a potentially hard to manage client group, over time they may become mentally exhausted and the resources required to control the expression of negative implicit attitudes towards their clients who inject drugs may become depleted and ineffectual (Muraven & Baumeister, 2000).

A second possibility, however is that health care workers' implicit attitudes towards their HCV+ IDU clients change over time. There is some evidence to suggest that implicit attitudes are malleable and subject to change (Dasgupta & Greenwald, 2001; Rudman, Ashmore & Gary, 2001; Wittenbrink, Judd & Park, 2001). Dasgupta and Greenwald (2001) have shown that implicit attitudes can be temporarily modified with exposure to either positive or negative exemplars of the outgroup, and that this change remained evident over a 24 hour period. However von Hippel (2004) points out the changes demonstrated by these experiments may reflect the malleability of

measures of implicit measures rather than the malleability of the implicit attitudes themselves. Although there are different theories around the malleability of implicit attitudes, the following argument can be put forward based on the assumption that implicit attitudes can be modified -- health care workers may begin their professional practice with relatively favourable implicit attitudes towards their HCV+ IDU client group, but repeated exposure to a client group that may be challenging to work with could alter these implicit attitudes and make them more negative. Hence existing stereotypes which health care workers may hold about injecting drug users may actually be reinforced or become endorsed when working with these clients (Devine, 1989). Health care workers may be able to maintain their favourable conscious attitudes towards this population, but the implications of working with a potentially difficult client group could manifest in modifications to the implicit attitudes of health care workers.

These data suggest that despite the favourable explicit attitudes of health care workers who work with a greater number of HCV+ IDU clients, exposure to HCV+ IDU clients appears to negatively influence the implicit attitudes of health care workers. This is further supported by the finding that nurses who have more contact (and possibly more frontline contact) with HCV+ IDU clients report more favourable attitudes toward this client group than the doctors, but also show more negative implicit attitudes. This effect may be indicative of the difficulties and stresses associated with working with this client group.

The findings of this study on the relationship between contact and implicit attitudes raise important avenues for further research. Firstly a study designed to replicate these

findings in a longitudinal design is necessary to investigate whether greater contact actually leads to negative implicit attitudes. Further research should address why these health care workers have negative implicit attitudes and whether these attitudes are related to other variables. For example, are staff who show negative implicit attitudes towards their HCV+ IDU clients more likely to face stress and burn out, which may cause them to stop working with this population? This finding of the association between contact and negative implicit attitudes raises interesting possibilities for future research that could shed light on the experiences of staff who work with challenging populations.

HCV+ client attitudes and health care worker contact

If contact with HCV positive clients has a positive effect on health care workers' explicit attitudes then there is every chance that contact will also influence the way HCV positive clients feel toward their health care workers. Indeed, the data showed that the relationship between greater contact and favourable explicit attitudes amongst health care workers was mirrored by clients' attitudes towards their health care workers. HCV positive clients who attended services where there were more HCV positive people reported more favourable attitudes towards their health care workers than clients who went to services where there were few people with HCV. As discussed in chapter 3, the beliefs that people bring to social situations about the person they are interacting with may influence that social interaction in such a way so as to confirm those beliefs (Snyder & Swann, 1978; Strenta & Kleck, 1985).

In this case however, it is not the expectation of prejudice and discrimination which shaped the clients' behaviour, but rather it appears to have been an expectation of a

positive experience with a health care worker. These findings provide evidence of a reverberated benefit of contact, as not only do those who have more contact hold more favourable attitudes, but their clients have more favourable attitudes toward them as well. The findings suggest the possibility of a self-fulfilling prophecy, whereby health care worker attitudes translate directly into client attitudes. In other words if health care workers have a positive attitude towards their HCV positive clients, this might increase the likelihood that the health care workers behave in a particularly friendly manner toward their HCV positive clients. This in turn may lead the clients to feel more positively toward their health care workers, resulting in a self fulfilling prophecy that confirms the original belief of the health care worker. Despite more favourable health care worker and client attitudes associated with greater contact, in this study greater health care worker contact with HCV+ clients was not associated with better treatment experiences for clients. Future research might attempt to assess whether other aspects of the treatment encounter not measured in this study, such as treatment outcomes, are associated with greater contact and more positive attitudes on the part of health care workers and clients.

Concluding Comments

While this research shows that health care workers' and HCV+ clients' explicit attitudes towards each other are positive, clients with HCV still rated their health care workers less highly and reported less satisfaction with their treatment than HCV- clients. Because HCV+ and HCV- clients are matched to health care workers at the same facilities, this study illustrates that HCV+ clients are still being treated differently to and not quite as well as HCV- non IDU clients. Furthermore, this study has raised controllability of stigma and worry about HCV+ clients' behaviour as

important variables in understanding prejudice toward people with HCV and in establishing how this prejudice impacts on differences in medical treatment of HCV+ and HCV- clients. The identification of the role of health care worker concerns about the behaviour of their HCV+ clients in predicting treatment differences may prove to be useful information for intervention and education programs designed for health care workers working with this client group.

As with any study, the research has answered some questions while raising others. The study has identified associations between greater contact with clients with HCV and health care worker implicit attitudes that are unusual, and further research is required to substantiate and explore these trends. Understanding the relationships between contact and the explicit and implicit attitudes of health care workers towards their HCV+ IDU clients may also shed light on the difficulties associated with working with clients who currently inject drugs or who have done so in the past, and on how these difficulties may affect health care workers who work with this population. While the negative implicit attitudes of health care workers were unrelated in this study to the treatment experiences of HCV+ clients, the relationship of increased contact with negative implicit attitudes may be indicative of the stresses involved in working with people who inject drugs. Hence these findings may provide insight into the hidden costs for health care workers of working with a population that may be challenging and at times difficult to manage.

References

- Aloisi, M.S., Arici, C., Balzano, R., Noto, P., Piscopo, R., Filice, G., Menichetti, F., Monforte, A., Ippolito, G., Girardi, E. (2002). Behavioral correlates of adherence to antiretroviral therapy. *Journal of Acquired Immune Deficiency Syndrome*, 31, S145-S148.
- Allport, G.W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Altemeyer, B. (2003). Why do religious fundamentalists tend to be prejudiced. *International Journal for the Psychology of Religion*, 13, 17-28.
- Altemeyer, B. & Hunsberger, B. (1992). Authoritarianism, religious fundamentalism, quest, and prejudice. *International Journal for the Psychology of Religion*, 2, 113-133.
- ANCAHRD (Australian National Council on AIDS, Hepatitis C and Related Disease) Hepatitis C Subcommittee (2002). *Hepatitis C Virus Projections Working Group: estimates and projections of the Hepatitis C Virus epidemic in Australia 2002*. National Centre in HIV Epidemiology and Clinical Research, University of New South Wales: Sydney.
- Anti-Discrimination Board of New South Wales (2001). *C Change: Report of the enquiry into hepatitis C related discrimination*. New South Wales: Sydney.
- Arkes, H.R. & Tetlock, P.E. (2004). Attributions of implicit prejudice, or “Would Jesse Jackson ‘fail’ the Implicit Association Test?” *Psychological Inquiry*, 15, 257-278
- Ashburn-Nardo, L., Voils, C.I. & Monteith, M.J. (2001). Implicit associations as the seeds of intergroup bias: how easily do they take root? *Journal of Personality and Social Psychology*, 81(5), 789-799.

- Australian Society for HIV Medicine (ASHM) (2003). General Practitioners and Hepatitis C. ASHM: Sydney.
- Backmund, M., Meyer, K., Von Zielonka, M. & Eichenlaub, D. (2001). Treatment of hepatitis C infection in injection drug users. *Hepatology*, 34, 188-193.
- Banse, R., Seise, J. & Zerbis, N. (2001). Implicit attitudes towards homosexuality: reliability, validity and controllability of the IAT. *Zeitschrift fur Experimentelle Psychologie*, 48(2), 145-160.
- Barclay, S., Todd, C., Finlay, I., Grande, G. & Wyatt, P. (2002). Not another questionnaire! Maximizing the response rate, predicting non-response and assessing non-response bias in postal questionnaire studies of GPs. *Family Practice*, 19(1), 105-111.
- Batey, R. (2006). Managing hepatitis C in the community. *Australian Prescriber*, 28(2), 36-39.
- Batson, C.D., Polycarpou, M.P., Harmon-Jones, E., Imhoff, H.J., Mitchener, E.C., Bednar, L.L., Klein, T.R. & Highberger, L. (1997). Empathy and attitudes: can feeling for a member of a stigmatised group improve feelings toward the group? *Journal of Personality and Social Psychology*, 72(1), 105-118.
- Bermingham, S. & Kippax, S. (1998). HIV-related discrimination: a survey of New South Wales general practitioners. *Australian and New Zealand Journal of Public Health*, 22(1), 92-97.
- Bodenhausen, G.V. & Macrae, C.N. (1998). Stereotype activation and inhibition. R.S. Wyer Jr (ed). *Stereotype activation and inhibition: Advances in social cognition* (Vol 11, pp 1-52). Erlbaum: Mahwah, NJ

- Bonaccorso, S., Marino, V., Biondi, M., Grimaldi, F., Ippoliti, F. & Mael, M. (20002). Depression induced by treatment with interferon-alpha in patients affected by hepatitis C virus. *Journal of Affective Disorders*, 72, 237-241.
- Brown, K. & Crofts, N. (1998). Health care costs of a continuing epidemic of hepatitis C virus infection among injecting drug users. *Australian and New Zealand Journal of Public Health*, 22(3), 384-388.
- Brunton, C., Kemp, R., Raynel, P., Harte, D. & Baker, M. (2000). Cumulative incidence of hepatitis C seroconversion in a cohort of seronegative injecting drug users. *New Zealand Medical Journal*, 113 (1106), 98-101.
- Buchanan, J. & Young, L. (2000). The war on drugs – a war on drug users? *Drugs Education, Prevention and Policy*, 7(4), 409-422.
- Capitanio, J.P. & Herek, G. M. (1999). AIDS-related stigma and attitudes toward injecting drug users among black and white Americans. *American Behavioral Scientist*, 42(7), 1148-1161.
- Caplehorn, J., Hartel, D. & Irwig, L. (1997). Measuring and comparing the attitudes and beliefs of staff working in New York methadone maintenance clinics. *Substance Use and Misuse*, 32, 399-413.
- Charles, P.G., Angus, P.W., Sasadeusz, J.J. & Grayson, M.L. (2003). Management of healthcare workers after occupational exposure to hepatitis C virus. *Medical Journal of Australia*, 179(3), 153-157.
- Clarke, S., Delamere, S.; McCullough, L., Hopkins, S.; Bergin, C & Mulcahy, F. (2003). Assessing limiting factors to the acceptance of antiretroviral therapy in a large cohort of injecting drug users. *HIV Medicine*, 4, 33-37.

- Cook, P.A., McVeigh, J., Syed, Q., Mutton, K. & Bellis, M.A. (2001). Predictors of hepatitis B and C infection in injecting drug users both in and out of drug treatment. *Addiction*, 96, 1787-1797.
- Crocker, T & Major, B. (1989). Social stigma and self-esteem. The self-protective properties of stigma. *Psychological Review*, 96, 608-630.
- Crocker, J., Cornwell, B. & Major, B. (1993). The stigma of overweight: affective consequences of attributional ambiguity. *Journal of Personality and Social Psychology*, 64(1), 60-70.
- Crocker, J., Major, B. & Steele, C. (1998). Social Stigma. In D.T. Gilbert, S.T. Fiske and Lindzey, G. (eds.). *The handbook of social psychology*, 4th edition. Boston: McGraw- Hill Companies (pages 504-553).
- Crocker, J., Voelkl, K., Testa, M. & Major, B. (1991). Social stigma: the affective consequences of attributional ambiguity. *Journal of Personality and Social Psychology*, 60(2), 218-228.
- Crofts, N. (2001). Going where the epidemic is: epidemiology and control of hepatitis C among injecting drug users. *Australian Family Physician*, 30(5), 420-425.
- Crofts, N., Aitken, C.K. & Kaldor, J.M. (1999). The force of numbers: why hepatitis C is spreading among Australian injecting drug users while HIV is not. *Medical Journal of Australia*, 170, 220-221.
- Crofts, N., Caruana, S. & Kerger, M. (2000). Minimising harm from hepatitis C virus needs better strategies. *British Medical Journal*, 321, 899.
- Crofts, N., Jolly, D., Kaldor, J., Van Beek, I. & Wodak, A. (1997). The epidemiology of hepatitis C infection among injecting drug users in Australia. *Journal of Epidemiology and Community Health*, 51(6), 692-697.

- Crofts, N., Louie, R. & Loff, B. (1997). The next plague: stigmatisation and discrimination related to hepatitis C infection in Australia. *Health and Human Rights*, 2(2), 86-97.
- Cunningham, W.A., Preacher, K.J. & Banaji, M.R. (2001). Implicit attitude measures: consistency, stability and convergent validity. *Psychological Science*, 12(2), 163-170.
- Dasgupta, N. & Greenwald, A.G. (2001). On the malleability of automatic attitudes: combating automatic prejudice with images of admired and disliked individuals. *Journal of Personality and Social Psychology*, 81(5), 800-814.
- Day, C., Ross, J. & Dolan, K. (2003). Hepatitis C-related discrimination among heroin users in Sydney: drug user or hepatitis C discrimination? *Drug and Alcohol Review*, 22, 317-321.
- Department of Health and Aged Care (2000). *National Hepatitis C Strategy 1999-2000 to 2003-2004*. Canberra: Commonwealth of Australia
- Department of Health and Aged Care (2005). *National Hepatitis C Strategy 2005-2008*. Canberra: Commonwealth of Australia
- Department of Health and Aging (2001). *National Hepatitis C Resource Manual*. Canberra: Commonwealth of Australia
- Department of Health and Aging (2002a). *National Notifiable Diseases Surveillance System*. Available at: <http://www.health.gov.au/pubhlth/cdi>.
- Department of Health and Aging (2002b). *Medicare benefits Schedule, November 2002*. Canberra: Commonwealth of Australia.

- Derlega, V.J., Winstead, B.A., Greene, K., Serovich, J. & Elwood, W. N. (2002). Perceived stigma and HIV disclosure to relationship partners after finding out about the seropositive diagnosis. *Journal of Health Psychology*, 7(4), 1415-1432.
- Devine, P.G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality & Social Psychology*, 56(1), 5-18.
- Devine, P.G. & Elliot, A.J. (2000). Are racial stereotypes *really* fading? The Princeton trilogy revisited. In C. Stangor (ed). *Stereotypes and Prejudice: essential readings*. Philadelphia: Psychology press.
- Devine, P.G. & Monteith, M.J. (1999). Automaticity and control in stereotyping. In S. Chaiken & Y. Trope (eds). *Dual process theories in social psychology* (pp339-360). New York: Guilford Press.
- Devine, P.G., Plant, E.A., Amodio, D.M., Harmon-Jones, E. & Vance, S.L. (2002). The regulation of explicit and implicit race bias: the role of motivation to] respond without prejudice. *Journal of Personality and Social Psychology*, 82(5),835-848.
- Diaz, T., Des Jarlais, D.C., Vlahov, D., Perlis, T.E., Edwards, V., Friedman, S.R., Rockwell, R., Hoover D., Williams, I.T. & Monterroso, E.R. (2001). Factors associated with prevalent Hepatitis C: differences among young adult injection drug users in lower and upper Manhattan. *American Journal of Public Health*, 91(1), 23-30.
- Doab, A., Treloar, C. & Dore, G. (2003). *Barriers to hepatitis C treatment among current IDU [Abstract]*. Paper presented at 15th Annual Conference of the Australasian Society for HIV Medicine, Global Crisis: Local Action, Cairns.

- Dore, G. (2003). The public health implications of the hepatitis C epidemic in Australia [Abstract]. Paper presented at 15th Annual Conference of the Australasian Society for HIV Medicine, Global Crisis: Local Action, Cairns.
- Dunne, E.A. & Quale, E. (2002). Pattern and process in disclosure of health status by women with iatrogenically acquired hepatitis C. *Journal of Health Psychology*, 7(5), 565-582.
- Dwight, M.M., Kowdley, K.V., Russo, J.E., Ciechanowski, P.S., Larson, A.M. & Katon, W.J. (2000). Depression, fatigue, and functional disability in patients with chronic hepatitis C. *Journal of Psychosomatics Research*, 49, 311-317.
- Edlin, B.R. (2002). Prevention and treatment of hepatitis C in injection drug users. *Hepatology*, 36(5 Supp1), s210-s219.
- Egloff, B. & Schmukle, S.C. (2002). Predictive validity of an implicit association test for assessing anxiety. *Journal of Personality and Social Psychology*, 83(6), 1441-1455.
- El-Serag, H.B. & Masson, A.C. (1999). Rising incidence of hepatocellular carcinoma in the United States. *New England Journal of Medicine*, 340, 745-750.
- Ellis, S., Kitzinger, C. & Wilkinson, S. (2002). Attitudes towards lesbians and gay men and support for lesbian and gay human rights among psychology students. *Journal of Homosexuality*, 44(1), 121-138.
- Esteban, R. (2003). Can interferon prolong life? *Hepatology*, 38(2), 292-294.
- Fazio, R.H. & Olsen, M.A. (2003) Implicit measures in social cognition research: Their meaning and uses. *Annual Review of Psychology*, 54, 297-327.

- Fazio, R.H., Jackson, J.R., Dunton, B.C. & Williams, C.J. (1995). Variability in automatic activation as an unobtrusive measure of racial attitudes: a bona fide pipeline? *Journal of Personality and Social Psychology*, 69, 1013-1027.
- Fife, B.L. & Wright, E.R. (2000). The dimensionality of stigma: a comparison of its impact on the self of persons with HIV/AIDs and cancer. *Journal of Health and Social Behavior*, 41 (1), 50-67.
- Fireman, M (2003). Hepatitis C treatment and substance use disorders. *Psychiatric Annals*, 33(6), 403-408.
- Fiske, S.T. (1998). Stereotyping, prejudice and discrimination. In D.T. Gilbert, S.T. Fiske & G. Lindzey (eds). *The handbook of social psychology*. 4th edition. New York: McGraw-Hill (pages 357-411).
- Fontana, R.J., Schwartz, S.M., Gebremariam, A., Lok, A.S. & Moyer, C.A. (2002). Emotional distress during interferon- α -2B and ribavirin treatment of chronic hepatitis C. *Psychosomatics*, 43(5), 378-385.
- Forman, R. F., Bovasso, G. & Woody, G. (2001). Staff beliefs about addiction treatment. *Journal of Substance Abuse Treatment*, 21, 1-9.
- Forton, D.M., Taylor-Robinson, S.D. & Thomas, H.C. (2003). Cerebral dysfunction in chronic hepatitis C infection. *Journal of Viral Hepatitis*, 10, 81-86.
- Forton, D.M., Thomas, H.C., Murphy, C.A., Allsop, J.M., Foster, G.R., Main, J., Wesnes, K.A. & Taylor-Robinson (2002). Hepatitis C and cognitive impairment in a cohort of patients with mild liver disease. *Hepatology*, 35(2), 433-439.
- Foster, G.R. (1999). Hepatitis C infection: quality of life and side effects of treatment. *Journal of Hepatology*, 31(Suppl 1), 250-254.

- Foster, G.R., Goldin, R.D. & Thomas, H.C. (1998). Chronic hepatitis C virus infection causes a significant reduction in quality of life in the absence of cirrhosis [comment]. *Hepatology*, 27(1), 292-293.
- Frable, D.E. (1993). Dimensions of marginality: distinctions among those who are different. *Personality and Social Psychology Bulletin*, 19(4), 370-380.
- Frable, D.E., Blackstone, T. & Scherbaum, C. (1990). Marginal and mindful: deviants in social interactions. *Journal of Personality and Social Psychology*, 59, 140-149.
- Frable, D.E., Platt, L. & Hoey, S. (1998). Concealable stigmas and positive self-perceptions: feeling better around similar others. *Journal of Personality and Social Psychology*, 74(4), 909-922.
- Gaertner, S.L. & Dovidio, J.F. (2000). The aversive form of racism. In C. Stangor (ed.). *Stereotypes and prejudice: essential readings*. Philadelphia: Taylor & Francis.
- Gawronski, B. (2002). What does the Implicit Association Test measure? A test of the convergent and discriminant validity of prejudice related IATs. *Experimental Psychology*, 49(3), 171-180.
- Gemar, M.C., Segal, Z.V., Sagrati, S & Kennedy, S.J. (2001). Mood—induced changes on the Implicit Association Test in recovered depressed patients. *Journal of Abnormal Psychology*, 110, 282-289.
- Gifford, S.M., O'Brien, M., Bammer, G., Bamwell, C. & Stoove, M. (2003). Australian women's experiences of living with hepatitis C virus: results from a cross-sectional survey. *Journal of Gastroenterology and Hepatology*, 18, 841-850.

- Gilmore, N. (1996). Drug use and human rights: privacy, vulnerability, disability, and human rights infringements. *Journal of Contemporary Health, Law & Policy*, 12, 355-447.
- Gilmore, N. and Somerville, M.A. (1994). Stigmatization, scapegoating and discrimination in sexually transmitted diseases: overcoming 'them' and 'us'. *Social Science and Medicine*, 39(9), 1339-1358.
- Glacken, M., Kernohan, G. & Coates, V. (2001). Diagnosed with hepatitis C: a descriptive exploratory study. *International Journal of Nursing Studies*, 38, 107-116.
- Glue, P., Rouzier-Panis, R., Raffanel, C., Sabo, R., Gupta, S.K., Salfi, M., Jacobs, S. & Clement, R.P. (2000). A dose ranging study of pegylated interferon alfa-2b and ribavirin in chronic hepatitis C. *Hepatology*, 32(3), 647-653.
- Goffman, I. (1963). *Notes on the management of spoiled identity*. Englewood Cliffs: Prentice-Hall
- Gonsalkorale, K (2005). *The relationship between Ingroup positivity and outgroup negativity under threat*. PhD dissertation, University of New South Wales, Sydney, Australia.
- Gossop, M., Griffiths, P., Powis, B., Williamson, S., Fountain, J & Strang, J. (1997). Continuing drug risk behaviour: Shared use of injecting paraphernalia among London heroin injectors. *AIDS Care*, 9(6), 651-660.
- Govorun, O. & Payne B.P. (2006). Ego-depletion and prejudice: separating automatic and controlled components. *Social Cognition*, 24(2), 111-136.
- Gowans, E.J. (2000). Hepatitis C Virology. In *Hepatitis C: informing Australia's National Response*. Commonwealth Department of Health and Aged Care, Canberra.

- Grassi, L., Satriano, J., Serra, A., Biancosino, B., Zotos, S., Sighinolfi, L. & Ghinelli, F. (2002). Emotional stress, psychosocial variables and coping associated with hepatitis C virus and human immunodeficiency virus infection in intravenous drug users. *Psychotherapy and Psychosomatics*, 71, 342-349.
- Green, S.T., Mohsen, A.H., McKendrick, M.W., Dawes, Y., Prakasam., Walberg, S. F. Schmid, M.L. (2001). Potential for hepatitis C transmission among non-needle/syringe sharing Sheffield drug injectors through sharing of drug paraphernalia. *Communicable Disease & Public Health*, 4(1), 38-41.
- Greenwald, A.G. & Banaji, M.R. (1995). Implicit social cognition: attitudes self-esteem and stereotypes. *Psychological Review*, 102, 4-27.
- Greenwald, A.G. & Farmham, S.D. (2000). Using the Implicit Association Test to measure self-esteem and self-concept. *Journal of Personality and Social Psychology*, 79, 1022-1038.
- Greenwald, A.G., McGhee, D.E. & Schwartz, J.L (1998). Measuring individual differences in implicit cognition: the Implicit Association Test. *Journal of Personality and Social Psychology*, 74, 1464-1480.
- Greenwald, A.G., Nosek, B.A & Banaji, M.R (2003). Understanding and using the Implicit Association Test: I. An improved scoring algorithm. *Journal of Personality and Social Psychology*, 85(2), 197-216.
- Grosenick, J.K. & Hatmaker, C. (2000). Perceptions of staff attributes in substance abuse treatment. *Journal of Substance Abuse Treatment*, 19, 273-284.
- Hagan, H., Thiede, H., Weiss, N., Hopkins, S., Duchin, J. & Alexander, R.E. (2001). Sharing of drug preparation equipment as a risk factor for Hepatitis C. *American Journal of Public Health*, 91(1), 42-26.

- Hall, W.D., Ross, J.E., Lynskey, M.T., Law, M.G. & Degenhardt, L.J. (2000). How many dependent heroin users are there in Australia? *Medical Journal of Australia*, 173(10), 528-531.
- Heaven, P. & Oxman, L. (1999). Human values, conservatism and stereotypes of homosexuals. *Personality and Individual Differences*, 27, 109-118
- Hebl, M.R. & Kleck, R.E. (2002). Acknowledging one's stigma in the interview setting: effective strategy or liability? *Journal of Applied Social Psychology*, 32(2), 223-249.
- Hebl, M.R., Foster, J.B., Mannix, L.M. & Dovidio, J.F. (2002). Formal and interpersonal discrimination, a field study of bias toward homosexual applicants. *Personality and Social Psychology Bulletin*, 28, 815-825.
- Heimer, R., Clair, S., Grau, L.E., Bluthenthal, R.N., Marshall, P.A. & Singer, M. (2002). Hepatitis-associated knowledge is low and risks are high among HIV-aware injection drug users in three US cities. *Addiction*, 97, 1277-1287.
- Henningham, J.P. (1996) A 12-item scale of social conservatism. *Personality and Individual Differences*, 20(4), 517-519.
- Hepworth, J & Krug, G. (1999). A socio-cultural perspective on the effects of a new virus on a community's health. *Journal of Health Psychology*, 4(2), 237-246.
- Herek, G.M. (1994). Assessing heterosexuals' attitudes toward lesbians and gay men: a review of empirical research with the ATLG scale. In B.Greene & G.M. Herek (eds) *Psychological perspectives on lesbian and gay issues, Vol 1: Lesbian and gay psychology: theory, research, and clinical applications*. Newbury Park: CA Sage.
- Herek, G.M (1999). Aids and stigma. *American Behavioral Scientist*, 42(7), 1106-1116.

- Herek, G. M. (2002). Heterosexuals' attitudes toward bisexual men and women in the United States. *The Journal of Sex Research*, 39(4), 264-274.
- Herek, G.M. & Capitanio, J.P. (1996). 'Some of my best friends': Intergroup contact, concealable stigma, and heterosexuals' attitudes towards gay men and lesbians. *Personality and Social Psychology Bulletin*, 22(4), 412-424.
- Herek, G.M. & Capitanio, J.P. (1999). Aids stigma and sexual prejudice. *American Behavioral Science*, 42(7), 1130-1147.
- Hopwood, M. & Kippax, S. (2001). An epidemic of difference: a social analysis of hepatitis C-related discrimination. In: *C-Change: report of the enquiry into hepatitis C related discrimination* (Appendix E). Anti-Discrimination Board of New South Wales, Sydney.
- Hopwood, M. & Southgate, E. (2003). Living with hepatitis C: a sociological review. *Critical Public Health*, 13(3), 251-267.
- Hopwood, M. & Treloar, C. (2003). The 3D project. Diagnosis, disclosure, discrimination and living with hepatitis C. National Centre in HIV Social Research, Monograph 6. University of New South Wales, Sydney.
- Hopwood, M., Treloar, C & Bryant, J. (2006). Hepatitis C and injecting-related discrimination in New South Wales, Australia. *Drugs: Education, Prevention and Policy*, 13(1), 61-75.
- Hosoda, S., Takimura, H., Shibayama, M., Kanamura, H., Ikeda, K. & Kumada, H.(2000). Psychiatric symptoms related to interferon therapy for chronic hepatitis C: clinical features and prognosis. *Psychiatry & Clinical Neurosciences*. 54(5), 565-72.
- Hulse, G.K. (1997). Australia's public health response to HIV and HCV: a role for 'affected' communities. *Drug and Alcohol Review*, 16, 171-176.

- Humphreys, K, Noke, J. & Moos, R.H. (1996). Recovering substance abuse staff members' beliefs about addiction. *Journal of Substance Abuse Treatment*, 13(1), 75-78.
- Hunsberger, B (1995). Religion and prejudice: The role of religious fundamentalism, quest, and right wing authoritarianism. *Journal of Social Issues*, 51(2): 113-129.
- Hunsberger, B., Owusu, V. & Duck, R. (1999). Religion and prejudice in Ghana and Canada: religious fundamentalism, right-wing authoritarianism and attitudes towards homosexuals and women. *International Journal for the Psychology of Religion*, 9(3), 181-194.
- Hunter, G.M., Stimson, G.V., Judd, A. Jones, S. & Hickman, M. (2000). Measuring Injecting risk behaviour in the second decade of harm reduction: a survey of injecting drug users. *Addiction*, 95(9), 1351-1361.
- Imazeki, F., Yokosuka, O., Fukai, K. & Saisho, H. (2003). Favorable prognosis of chronic hepatitis C after interferon therapy by long-term cohort study. *Hepatology*, 38, 493-502.
- Jaeckel, E., Cornberg, M., Wedemeyer, H., Santanonio, T., Mayer, J., Zankel, M., Patore, G., Dietrich, M., Trautwein, C. & Manns, M.P. (2001). Treatment of acute hepatitis C with interferon alfa-2b. *New England Journal of Medicine*, 345(20), 1452-1457.
- Jarvis, W.B.G. (2004a). DirectRT v2004 [computer software]. New York. Empirisoft Corporation.
- Jarvis, W.B.G. (2004a). MediaLab v2004 [computer software]. New York. Empirisoft Corporation.

- Johnson, M.E., Fisher, D.G., Fenaughty, A. & Theno, S.A. (1998). Hepatitis C virus and depression in drug users. *American Journal of Gastroenterology*, 93, 785-789.
- Jost, J.T., Glaser, J., Kruglanski, A.W. & Sulloway, F.J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129(3), 339-375.
- Jones, J.M. (1997). *Prejudice and racism*. 2nd edition. New York: The McGraw-Hill
- Karpinski, A. & Hilton, J. (2001). Attitudes and the implicit association test. *Journal of Personality and Social Psychology*, 81(5), 774-788.
- Karpinski, A. & Steinman, R.B. (2006). Associative strength measures of attitudes: a comparison of the Single Category Association Test to the Implicit Association Test. *Journal of Personality and Social Psychology*, in press.
- Kleck, R.E. & Strenta, A. (1980). Perceptions of the impact of negatively valued physical characteristics on social interaction. *Journal of Personality and Social Psychology*, 39, 861-873.
- Kraus, M.R., Schafer, A., Csef, H., Scheurlen & Faller, H. (2000). Emotional state, coping styles and somatic variables in patients with chronic hepatitis C. *Psychosomatics*, 41(5), 377-384.
- Krug, G.J. (1995). Hepatitis C: Discursive domains and epistemic chasms. *Journal of Contemporary Ethnography*, 24(3), 299-322.
- Krug, G.J. (1997). HCV in the mass media: the unbearable absence of meaning. In N.K. Denzin (Ed). *Cultural Studies: a research volume*. Vol 2. Jai Press Ltd: London (pages 91-108).

- Kwiatkowski, C.F., Corsi, K.F. & Booth, R.E. (2002). The association between knowledge of hepatitis C virus status and risk behaviours in injection drug users. *Addiction*, 97, 1289-1294.
- Lai, M.Y. (2000). Firstline treatment for hepatitis C: Combination interferon/ribavirin versus interferon monotherapy. *Journal of Gastroenterology and Hepatology*, 15 (Suppl S), E130-E133.
- Larsen, K.S., Reed, M. & Hoffman, S. (1980). Attitudes of heterosexuals toward homosexuality: A Likert-type scale and construct validity. *The Journal of Sex Research*, 19, 105-118.
- Law, M.G. (1999). Modelling the hepatitis C epidemic in Australia. Hepatitis C Virus Projections Working Group. *Journal of Gastroenterology & Hepatology*, 14(11), 1100-1117.
- Law, M.G. & Batey, R.G. (2003). Injecting drug use in Australia: needle/syringe programs prove their worth, but hepatitis C still on the increase. *Medical Journal of Australia*, 178(5), 197-198.
- Lawless, S., Kippax, S. & Crawford, J. (1996). Dirty, diseased and undeserving: the positioning of HIV positive women. *Social Science and Medicine*, 43(9), 1371-1377.
- Laythe, B., Finkel, D. & Kirkpatrick, L.A. (2001). Predicting prejudice from religious fundamentalism and right-wing authoritarianism: a multiple-regression approach. *Journal of the Scientific Study of Religion*, 40(1), 1-10.
- Laythe, B., Finkel, D., Bringle, R.G. & Kirkpatrick, L.A. (2002). Religious fundamentalism as a predictor of prejudice: a two component model. *Journal for the Scientific Study of Religion*, 41(4), 623-635.

- Lee, R.S., Kochman, A. & Sikkema, K.J. (2002). Internalized stigma among people living with HIV-AIDS. *AIDS and Behavior*, 6(4), 309-319.
- Levy, M., Baum, F. & Thomas, H. (2002). *2002 Review of the National Hepatitis C Strategy 1999-2000 to 2003-2004: The road not taken*. Report Summary. Canberra: Australian Hepatitis Council.
- Link, B.G., Struening, E.L., Neese-Todd, S., Asmussen, S. & Phelan, J.C. (2001). The consequences of stigma for the self-esteem of people with mental illnesses. *Psychiatric Services*, 52(12), 1621-1626.
- Loftis, J.M. & Hauser, P. (2003). Comanagement of depression and HCV treatment. *Psychiatric Annals*, 33(6), 385-391.
- Lorvick, J, Kral, A.H., Seal, K., Gee, L. & Edlin, B. (2001). Prevention and duration of hepatitis C among injection drug users in San Francisco, California. *American Journal of Public Health*, 91, 46-47.
- Loxley, W., Davidson, P., Heale, P. & Sullivan, P. (2000). *Drawing blood: injecting drug users, blood borne viruses, testing and vaccination*. National Drug Research Institute, Curtin University of Technology, Perth, WA.
- Mackdacy, L., Lennings, C. & Lennings, R. (2000). Attitudes of general practitioners and their patients towards GP's treatment of hepatitis C patients. *Journal of Applied Health Behaviour*, 2(1), 16-22.
- McConnell, A.R. & Leibold, J.M. (2001). Relations among the Implicit Association Test, discriminatory behavior, and explicit measures of racial attitudes. *Journal of Experimental Social Psychology*, 37, 435-442.
- McDonald, A. (2003). *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia. Annual Surveillance Report*. National Centre HIV Epidemiology and Clinical Research: Sydney.

- McDonald, J., Jayasuriya, R., Bindley, P., Gonsalvez, C. & Gluseka, S. (2002). Fatigue and psychological disorders in chronic hepatitis C. *Journal of Gastroenterology and Hepatology*, 17, 171-176.
- McGhee, D.E., Greenwald, A.G. and Banaji, M.R. (2000). Automatic preference for white Americans: eliminating the familiarity explanation. *Journal of Experimental Social Psychology*, 36, 316-328.
- McHutchison, J.G., Gordon, S.C., Schiff, E.R., Shiffman, M.L., Lee, W.M., Rustgi, V.K., Goodman, Z.D. Ling, M.H., Cort, S., Albrecht, J.K. (1998). Interferon alfa-2b alone or in combination with ribavirin as initial treatment for chronic hepatitis C. *New England Journal of Medicine*, 339, 1485-1492.
- McFarland, S.G. & Crouch, Z. (2002). A cognitive skill confound on the implicit association test. *Social Cognition*, 20 (6), 483-510.
- Menec, V.R. & Perry, R.P. (1998). Reactions to stigmas among Canadian students. Testing an Attribution-Affect-Help Judgment Model. *Journal of Social Psychology*, 138(4), 443-453.
- Miller, E.R., Hiller, J.E. & Shaw, D.R. (2001). Quality of life in HCV-infection: lack of association with ALT levels. *Australian and New Zealand Journal of Public Health*, 25(4), 355-361.
- Monji, A.K., Yoshida, I., Tashiro, K., Hayashi, Y. & Tashiro, N. (1998). A case of persistent manic-depressive illness induced by interferon-alpha in the treatment of chronic hepatitis C [Letter]. *Psychosomatics*, 39 (6), 562-564.
- Monteith, M. (1993). Self-regulation of prejudiced responses: implications for progress in prejudice reduction efforts. *Journal of Personality and Social Psychology*, 65, 469-485.

- Muraven, M. & Baumeister, R.F. (2000). Self regulation and depletion of limited resources: does self-control resemble a muscle? *Psychological Bulletin*, 126(2), 247-259.
- National Centre in HIV Epidemiology and Clinical Research (2006). *Hepatitis C Virus Projections Working Group: Estimates and Projections of the Hepatitis C virus epidemic in Australia 2006*. Ministerial Advisory Committee on AIDS, Sexual Health and Hepatitis C Sub-Committee.
- Newmeyer, J. (2002). Can HCV be prevented among injection drug users? *Journal of Psychoactive Drugs*, 34(4), 421-423.
- Nier, J.A. (2005). How dissociated are implicit and explicit racial attitudes? A bogus pipeline approach. *Group Processes and Intergroup Relations*, 8(1), 39-52.
- Nosek, B.A., Banaji, M.R. & Greenwald, A.G. (2002). Harvesting implicit group attitudes and beliefs from a demonstration web site. *Group Dynamics: Theory, Research and Practice*, 6(1), 101-115.
- Olson, M..A. & Fazio, R.H. (2004). Reducing the influence of extrapersonal associations on the Implicit Association Test: Personalizing the IAT. *Journal of Personality and Social Psychology*, 86, 653-667.
- Olsson, A., Ebert, J.P., Banaji, M.R. & Phelps, E.A. (2005). The role of social groups in the persistence of learned fear. *Science*, 309, 785-787.
- Operario, D. & Fiske, S.T. (2001). Ethnic identity moderates perceptions of prejudice: judgements of personal versus group discrimination and subtle versus blatant bias. *Personality and Social Psychology Bulletin*, 27(5), 550-561.
- Ottaway, S.A., Hayden, D.C. & Oakes, M.A. (2001). Implicit attitudes and racism: effects of word familiarity and frequency on the implicit association test. *Social Cognition*, 19(2), 97-144.

- Pettigrew, T.F. (1998). Intergroup contact theory. *Annual Review of Psychology*, 49, 65-85.
- Pettigrew, T.F. & Tropp, L.R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751-783.
- Pianko, S & McHutchison, J.G. (2000). Treatment of hepatitis C with interferon and Ribavirin [Review]. *Journal of Gastroenterology and Hepatology*, 15(6), 581-586.
- Pinel, E.C. (1999). Stigma consciousness, the psychological legacy of social stereotypes. *Journal of Personality and Social Psychology*, 76(1). 114-128.
- Plant, E.A. & Devine, P.G. (1998). Internal and external motivation to respond without prejudice. *Journal of Personality and Social Psychology*, 75, 811-832.
- Poehlman, T.A., Uhlmann, E., Greenwald, A.G. & Banaji, M.R. (2005). Understanding and using the implicit association test: III. Meta-analysis of predictive validity. Unpublished manuscript.
- Price, S. & Goyette, J. (2003). Role of the psychiatrist in the care of patients with hepatitis C and HIV/AIDS. *Psychiatric Quarterly*, 74(3), 261-276.
- Reid, G., Crofts, N. & Hocking, J. (2000). *Needs analysis for primary health care among the street drug using community in Footscray*. The Centre for Harm Reduction, Macfarlane Burnet Centre for medical Research, Melbourne.
- Rodin, M. & Price, J. (1995). Overcoming stigma: credit for self-improvement or discredit for needing to improve. *Personality and Social Psychology Bulletin*, 21(2), 172-81.
- Rudman, L.A. & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues*, 57(4), 743-762.

- Rudman, L.A. & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues*, 57(4), 743-762.
- Rudman, L.A., Ashmore, R.D. & Gary, M.L. (2001). 'Unlearning' automatic biases: the malleability of implicit prejudice and stereotypes. *Journal of Personality & Social Psychology*, 81(5), 856-868.
- Rudman, L.A., Feinberg, J. & Fairchild, K. (2002). Minority members' implicit attitudes: automatic ingroup bias as a function of group status. *Social Cognition*, 20(4), 294-320.
- Rudman, L.A., Greenwald, A.G., Mellot, D.S. & Schwartz, J. L. (1999). Measuring the automatic components of prejudice: flexibility and generality of the implicit association test. *Social Cognition*, 17(4), 437-465.
- Sekaquaptewa, D., Espinoza, P., Thompson, M., Vargas, P. & Von Hippel (2003). Stereotypic explanatory bias: implicit stereotyping as a predictor of discrimination. *Journal of Experimental Social Psychology*, 39, 75-82.
- Sherman, M. (1997). Management of viral hepatitis: clinical and public health perspectives –a consensus statement. CASL Hepatitis Consensus Group. Canadian Association for the study of the Liver. *Canadian Journal of Gastroenterology*, 11(5), 407-416.
- Shiell, A. & Law, M.G. (2001). The cost of hepatitis C and the cost-effectiveness of its prevention. *Health Policy*, 58, 121-131.
- Shrum, J., Turner, N. & Bruce, K. (1989). Development of an instrument to measure attitudes towards AIDS. *AIDS Education and Prevention*, 1, 222-230.
- Sievert, W. (2000). *Hepatitis C treatment issues. Hepatitis C informing Australia's national response*. Department of Health and Aging, Canberra.

- Sladden, T.J., Hickey, A.R., Dunn, T.M. & Beard, J.R. (1997). Hepatitis C transmission on the North Coast of New South Wales: explaining the unexplained. *Medical Journal of Australia*, 166, 290-293.
- Sladden, T.J., Hickey, A.R., Dunn, T.M. & Beard, J.R. (1998). Hepatitis C virus infection: impacts on behaviour and lifestyle. *Australian and New Zealand Journal of Public Health*, 22(4), 509-511.
- Smart, L & Wegner, D.M. (1999). Covering up what can't be seen: concealable stigma and mental control. *Journal of Personality and Social Psychology*, 77(3), 474-486.
- Snyder, M and Swann, W.B. (1978). Behavioral confirmation in social interaction: from social perception to social reality. *Journal of Experimental Social Psychology*, 14, 148-162.
- Stangor, C., Swim, J.K., Van Allen, K.L. & Sechrit, G.B. (2002). Reporting discrimination in public and private contexts. *Journal of Personality and Social Psychology*, 82(1), 69-74.
- Stein, M.D., Maksad, J. & Clarke, J. (2001). Hepatitis C disease among injection drug users: knowledge, perceived risk and willingness to receive treatment. *Drug and Alcohol Dependence*, 61, 211-215.
- Strenta, A.C. & Kleck, R.E. (1984). Physical disability and the perception of social interaction: it's not what you look at but how you look at it. *Personality and Social Psychology Bulletin*, 10(2), 279-288.
- Strenta, A.C., & Kleck, R.A. (1985). Physical disability and the attribution dilemma: perceiving the causes of social behavior. *Journal of Social and Clinical Psychology*, 3(2), 129-142.

- Swanson, J.E., Rudman, L.A. & Greenwald, A.G. (2001). Using the Implicit Association Test to investigate attitude-behaviour consistency for stigmatised behaviour. *Cognition and Emotion*, 15(2), 207-230.
- Sylvestre, D.L. (2003). Injection drug use and hepatitis C: from transmission to treatment. *Psychiatric Annals*, 33(6), 377-382.
- Sylvestre, D.L., Litwin, A.H., Clements, B.J. & Gourevitch, M.N. (2005). The impact of barriers to hepatitis C virus on treatment in recovering heroin users maintained on methadone. *Journal of Substance Abuse Treatment*, 29, 159-165.
- Taylor, L.E. (2001). Hepatitis C: Social justice concerns and global health needs. *Rural Social Work (Special Australian/Canadian Issue)*, 6(3), 54-62.
- Teachman, B.A., Gregg, A.P. & Woody, S.R. (2001). Implicit associations for fear-relevant stimuli among individuals with snake and spider fears. *Journal of Abnormal Psychology*, 110, 226-235.
- Templeton, L., Deehan, A., Taylor, C., Drummond, J. & Strang, J. (1997). Surveying general practitioners: does a low response rate matter? *British Journal of General Practice*, 47(415), 91-91.
- Van Den Mortel, T.F. (2002). Health care workers' knowledge of hepatitis C & attitudes towards patients with hepatitis C: a pilot study. *Australian Journal of Advanced Nursing*, 20(10), 13-19.
- von Hippel, W (2004). Implicit Prejudice: Pentimento or Inquisition? *Psychological Inquiry*, 15, 302-305.
- von Hippel, W., Sekaquaptewa, D. & Vargas, P. (1997). The linguistic intergroup bias as an implicit indicator of prejudice. *Journal of Experimental Social Psychology*, 33, 490-509.

- Ware, J.E., Bayliss, M.S., Mannocchia, M. & Davis, G.L. (1999). Health-related quality of life in chronic hepatitis C: impact of disease and treatment response. The Interventional Therapy Group. *Hepatology*, 30(2), 550-5.
- Weiner, B., Perry, R.P. & Magnusson, J. (1988). An attributional analysis of reactions to stigmas. *Journal of Personality and Social Psychology*, 55(5), 738-748.
- Werth, J.L. & Lord, C.G. (1992). Previous conceptions of the typical group member and the contact hypothesis. *Basic and Applied Social Psychology*, 13(3), 351-369.
- Wittenbrink, B., Judd, C. M & Park, B. (1997). Evidence for racial prejudice at the implicit level and its relationship with questionnaire measures. *Journal of Personality and Social Psychology*, 72(2) 262-274.
- Wittenbrink, B., Judd, C.M. & Park, B. (2001). Evaluative versus conceptual judgments in automatic stereotyping and prejudice. *Journal of Experimental Social Psychology*, 37, 244-252.
- Whitley, B.E. (1990). The relationship of heterosexuals' attributions for the causes of homosexuality to attitudes towards lesbians and gay men. *Personality and Social Psychology Bulletin*, 16(2), 369-377.
- WHO (2000). *Fact Sheet No. 164*. October 2000.
- Wilson, T.D., Lindsey, S. & Schooler, T.Y. (2000). A model of dual attitudes. *Psychological Review*, 107(1), 101-126.
- Wodak, A. (1997). Hepatitis C: waiting for the Grim Reaper. *Medical Journal of Australia*, 166, 284-285.
- Wodak, A. & Crofts, N. (1996). Once more unto the breach: controlling hepatitis C in injecting drug users (Editorial). *Addiction*, 91(2), 181-184.

Zdilar, D., Franco-Bronson, K., Buchler, N., Locala, J.A. & Younossi, Z.M. (2000)

Hepatitis C, interferon alfa, and depression. Hepatology, 31(6), 1207-1211.

Zhou, J., Buddle, M, Wodak, A.D., Dore, G.J., Kaldor, J.M. & MacDonald, M.A.

(2003). *Prevalence of HIV, HCV antibody among injecting drug users at needle and syringe programs in Australia, 1995-2002 [Abstract].* Paper

presented at 15th Annual Conference of the Australasian Society for HIV

Medicine, Global Crisis: Local Action, Cairns.

Zweben, J.E. (2001). Hepatitis C: Education and Counseling Issues. *Journal of*

Addictive Diseases, 20(1), 33-42.

Appendix 1

Original and new scales used to develop measures for main study

Attitudes to Homosexuals

Instructions

The following statements are about homosexuality. For each, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. I won't associate with known homosexuals if I can help it.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. The sight of two men kissing does not particularly bother me.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. Homosexuals should be locked up to protect society.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. In many ways, the AIDS disease killing homosexuals is just what they deserve.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. Homosexuals have a perfect right to their lifestyle, if that's the way they want to live.
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. People should feel sympathetic and understanding of homosexuals, who are unfairly attacked in our society.
☐ SD ☐ D ☐ N ☐ A ☐ SA
7. I wouldn't mind being seen smiling and chatting with a known homosexual.
☐ SD ☐ D ☐ N ☐ A ☐ SA

8. I think homosexuals are disgusting.
☐ SD ☐ D ☐ N ☐ A ☐ SA
9. I would not be too upset if I learned that my son were a homosexual.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. Sex between two men is just plain wrong.
☐ SD ☐ D ☐ N ☐ A ☐ SA
11. Homosexuality is merely a different kind of lifestyle that should not be condemned.
☐ SD ☐ D ☐ N ☐ A ☐ SA
12. Homosexuality is immoral
☐ SD ☐ D ☐ N ☐ A ☐ SA
13. Homosexuals are mistreated in our society
☐ SD ☐ D ☐ N ☐ A ☐ SA
14. Homosexuality is a mental disorder
☐ SD ☐ D ☐ N ☐ A ☐ SA
15. Homosexuals do need psychological treatment
☐ SD ☐ D ☐ N ☐ A ☐ SA
16. Homosexuals should be accepted completely into our society
☐ SD ☐ D ☐ N ☐ A ☐ SA
17. Those in favour of homosexuality tend to be homosexuals themselves.
☐ SD ☐ D ☐ N ☐ A ☐ SA

18. There should be no restrictions on homosexuality
☐ SD ☐ D ☐ N ☐ A ☐ SA
19. I avoid homosexuals whenever possible
☐ SD ☐ D ☐ N ☐ A ☐ SA
20. There is no reason to restrict the places where homosexuals work
☐ SD ☐ D ☐ N ☐ A ☐ SA

Attitude to Injecting Drug Users

Instructions

The following statements are about people who inject drugs. For each, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. I won't associate with known injecting drug users if I can help it.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. The sight of people injecting drugs does not particularly bother me.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. Injecting drug users should be locked up to protect society.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. In many ways, the hepatitis C disease infecting injecting drug users is just what they deserve.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. Injecting drug users have a perfect right to their lifestyle, if that's the way they want to live.
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. People should feel sympathetic and understanding of injecting drug users, who are unfairly attacked in our society.
☐ SD ☐ D ☐ N ☐ A ☐ SA
7. I wouldn't mind being seen smiling and chatting with a known injecting drug user.
☐ SD ☐ D ☐ N ☐ A ☐ SA
8. I think injecting drug users are disgusting.

☐ SD ☐ D ☐ N ☐ A ☐ SA

9. I would not be too upset if I learned that my child was an injecting drug user.

☐ SD ☐ D ☐ N ☐ A ☐ SA

10. Injecting drug use is just plain wrong.

☐ SD ☐ D ☐ N ☐ A ☐ SA

11. Injecting drug use is merely a different kind of lifestyle that should not be condemned.

☐ SD ☐ D ☐ N ☐ A ☐ SA

12. Injecting drug use is immoral

☐ SD ☐ D ☐ N ☐ A ☐ SA

13. Injecting drug users are mistreated in our society

☐ SD ☐ D ☐ N ☐ A ☐ SA

14. Injecting drug use is a mental disorder

☐ SD ☐ D ☐ N ☐ A ☐ SA

15. Injecting drug users do need psychological treatment

☐ SD ☐ D ☐ N ☐ A ☐ SA

16. Injecting drug users should be accepted completely into our society

☐ SD ☐ D ☐ N ☐ A ☐ SA

17. Those in favour of injecting drug use tend to be injecting drug users themselves.
- ☐ SD ☐ D ☐ N ☐ A ☐ SA
18. There should be no restrictions on injecting drug use
- ☐ SD ☐ D ☐ N ☐ A ☐ SA
19. I avoid injecting drug users whenever possible
- ☐ SD ☐ D ☐ N ☐ A ☐ SA
20. There is no reason to restrict the places where injecting drug users work
- ☐ SD ☐ D ☐ N ☐ A ☐ SA

AIDS Attitude Scale

Instructions

The following statements are about HIV and AIDS. For each statement, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. Limiting the spread of AIDS is more important than trying to protect the rights of people with AIDS.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. Support groups for people with HIV infection would be very helpful to them.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. I would consider marrying someone with HIV infection
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. People should not be afraid of catching HIV from casual contact, like hugging or shaking hands.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. Only disgusting people get HIV infection
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. I think people with HIV infection got what they deserved.
☐ SD ☐ D ☐ N ☐ A ☐ SA
7. The 'gay plague' is an appropriate way to describe AIDS.
☐ SD ☐ D ☐ N ☐ A ☐ SA
8. I would date a person with AIDS

☐ SD ☐ D ☐ N ☐ A ☐ SA

9. People should not blame the homosexual community for the spread of HIV infection in Australia.

☐ SD ☐ D ☐ N ☐ A ☐ SA

10. No one deserves to have a disease like HIV infection

☐ SD ☐ D ☐ N ☐ A ☐ SA

11. An employer should have the right to fire an employee with HIV infection regardless of the type of work s/he does.

☐ SD ☐ D ☐ N ☐ A ☐ SA

12. I would allow my children to play with the children of someone known to have AIDS.

☐ SD ☐ D ☐ N ☐ A ☐ SA

13. People with HIV should not be looked down upon by others.

☐ SD ☐ D ☐ N ☐ A ☐ SA

14. I can tell by looking at someone if s/he has AIDS.

☐ SD ☐ D ☐ N ☐ A ☐ SA

15. Health care workers should not refuse to care for people with HIV infection regardless of their personal feelings about the disease.

☐ SD ☐ D ☐ N ☐ A ☐ SA

16. HIV blood test results should be confidential to avoid discrimination.

☐ SD ☐ D ☐ N ☐ A ☐ SA

17. HIV infection is a punishment for immoral behaviour.
☐ SD ☐ D ☐ N ☐ A ☐ SA
18. If I discovered my flatmate had AIDS, I would move out.
☐ SD ☐ D ☐ N ☐ A ☐ SA
19. The best way to get rid of HIV infection is to get rid of homosexuality.
☐ SD ☐ D ☐ N ☐ A ☐ SA
20. Churches should take a strong stand against drug abuse and homosexuality to prevent the spread of AIDS
☐ SD ☐ D ☐ N ☐ A ☐ SA
21. Money being spent on HIV infection research should be spent instead on diseases that affect innocent people.
☐ SD ☐ D ☐ N ☐ A ☐ SA
22. People with AIDS are not worth getting to know
☐ SD ☐ D ☐ N ☐ A ☐ SA
23. I have no sympathy for homosexuals who get HIV infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
24. People would not be so afraid of AIDS if they knew more about the disease.
☐ SD ☐ D ☐ N ☐ A ☐ SA
25. Hospitals and clinics should not refuse to admit patients with HIV infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
26. I would not avoid a friend if s/he had AIDS
☐ SD ☐ D ☐ N ☐ A ☐ SA

27. The spread of HIV in our society illustrates how immoral Australia has become.

☐ SD

☐ D

☐ N

☐ A

☐ SA

Attitudes to Hepatitis C

Instructions

The following statements are about hepatitis C (hep C). For each statement, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. Limiting the spread of hep C is more important than trying to protect the rights of people with hep C.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. Support groups for people with hep C infection would be very helpful to them.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. I would consider marrying someone with hep C infection
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. People should not be afraid of catching hep C from casual contact, like hugging or shaking hands.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. Only disgusting people get hep C infection
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. I think people with hep C infection got what they deserved.
☐ SD ☐ D ☐ N ☐ A ☐ SA
7. The 'injecting drug plague' is an appropriate way to describe hep C.
☐ SD ☐ D ☐ N ☐ A ☐ SA
8. I would date a person with hep C.

☐ SD ☐ D ☐ N ☐ A ☐ SA

9. People should not blame injecting drug users for the spread of hep C infection in Australia.

☐ SD ☐ D ☐ N ☐ A ☐ SA

10. No one deserves to have a disease like hep C.

☐ SD ☐ D ☐ N ☐ A ☐ SA

11. An employer should have the right to fire an employee with hep C infection regardless of the type of work s/he does.

☐ SD ☐ D ☐ N ☐ A ☐ SA

12. I would allow my children to play with the children of someone known to have hep C.

☐ SD ☐ D ☐ N ☐ A ☐ SA

13. People with hep C should not be looked down upon by others.

☐ SD ☐ D ☐ N ☐ A ☐ SA

14. I can tell by looking at someone if s/he has hep C.

☐ SD ☐ D ☐ N ☐ A ☐ SA

15. Health care workers should not refuse to care for people with hep C infection regardless of their personal feelings about the disease.

☐ SD ☐ D ☐ N ☐ A ☐ SA

16. Hep C blood test results should be confidential to avoid discrimination.

☐ SD ☐ D ☐ N ☐ A ☐ SA

17. Hep C infection is a punishment for immoral behaviour.
☐ SD ☐ D ☐ N ☐ A ☐ SA
18. If I discovered my flatmate had hep C, I would move out.
☐ SD ☐ D ☐ N ☐ A ☐ SA
19. The best way to get rid of hep C infection is to get rid of injecting drug users.
☐ SD ☐ D ☐ N ☐ A ☐ SA
20. Churches should take a strong stand against drug abuse to prevent the spread of hep C.
☐ SD ☐ D ☐ N ☐ A ☐ SA
21. Money being spent on hep C infection research should be spent instead on diseases that affect innocent people.
☐ SD ☐ D ☐ N ☐ A ☐ SA
22. People with hep C are not worth getting to know
☐ SD ☐ D ☐ N ☐ A ☐ SA
23. I have no sympathy for injecting drug users who get hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
24. People would not be so afraid of hep C if they knew more about the disease.
☐ SD ☐ D ☐ N ☐ A ☐ SA
25. Hospitals and clinics should not refuse to admit patients with hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
26. I would not avoid a friend if s/he had hep C.
☐ SD ☐ D ☐ N ☐ A ☐ SA

27. The spread of hep C in our society illustrates how immoral Australia has become.

☐ SD

☐ D

☐ N

☐ A

☐ SA

Religious Fundamentalism Scale

Instructions

For each of the following statements, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. God has given mankind a complete, unfailing guide to happiness and salvation, which must be totally followed.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. *All* of the religions in the world have flaws and wrong teachings.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. Of all the people on this earth, one group has a special relationship with God because it believes the most in his revealed truths and tries the hardest to follow his laws.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. The long-established traditions in religion show the best way to honour and serve God, and should never be compromised.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. Religion must admit all its past failings, and adapt to modern life if it is to benefit humanity.
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. When you get right down to it, there are only two kinds of people in the world: the Righteous, who will be rewarded by God; and the rest, who will not.
☐ SD ☐ D ☐ N ☐ A ☐ SA

7. Different religions and philosophies have different versions of the truth, and may be equally right in their own way.
☐ SD ☐ D ☐ N ☐ A ☐ SA
8. The basic cause of evil in this world is Satan, who is still constantly and ferociously fighting against God.
☐ SD ☐ D ☐ N ☐ A ☐ SA
9. It is more important to be a good person than to believe in God and the right religion.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. No one religion is especially close to God, nor does God favour any particular group of believers.
☐ SD ☐ D ☐ N ☐ A ☐ SA
11. God will punish most severely those who abandon his true religion.
☐ SD ☐ D ☐ N ☐ A ☐ SA
12. No single book of religious writings contains all the important truths about life.
☐ SD ☐ D ☐ N ☐ A ☐ SA
13. It is silly to think people can be divided into “the Good” and “the Evil.” Everyone does some good, and some bad things.
☐ SD ☐ D ☐ N ☐ A ☐ SA
14. God’s true followers must remember that he requires them to *constantly* fight Satan and Satan’s allies on this earth.
☐ SD ☐ D ☐ N ☐ A ☐ SA
15. Parents should encourage their children to study all religions without bias, then make up their own minds about what to believe.
☐ SD ☐ D ☐ N ☐ A ☐ SA
16. There *is* a religion on this earth that teaches, without error, God’s truth.
☐ SD ☐ D ☐ N ☐ A ☐ SA

17. “Satan” is just the name people give to their own bad impulses. There really is *no such thing* as a diabolical “Prince of Darkness” who tempts us.
☐ SD ☐ D ☐ N ☐ A ☐ SA
18. Whenever science and sacred scripture conflict, science must be wrong.
☐ SD ☐ D ☐ N ☐ A ☐ SA
19. There is *no* body of teachings, or set of scriptures, which is completely without error.
☐ SD ☐ D ☐ N ☐ A ☐ SA
20. To lead the best, most meaningful life, one must belong to the one, true religion.
☐ SD ☐ D ☐ N ☐ A ☐ SA

Religiosity questions

1. Have you attended a religious service of any kind in the past 12 months?

☐ Yes

☐ No

2. How important is religion in your life?

☐ Very important

☐ Somewhat important

☐ Not too important

☐ Not at all important

Revised Wilson Conservatism Scale

Instructions

Which of the following do you favour or believe in?

Circle 'Yes' or 'No'. If absolutely uncertain circle '?'

There are no right or wrong answers; just give your first reaction.

Answer all items

1.	Death Penalty	Yes	?	No
2.	Multiculturalism	Yes	?	No
3.	Stiffer jail terms	Yes	?	No
4.	Voluntary euthanasia	Yes	?	No
5.	Bible truth	Yes	?	No
6.	Gay rights	Yes	?	No
7.	Pre-marital virginity	Yes	?	No
8.	Asian immigration	Yes	?	No
9.	Church authority	Yes	?	No
10.	Legalised abortion	Yes	?	No
11.	Condom vending machines	Yes	?	No
12.	Legalised prostitution	Yes	?	No

Perceptions of the Controllability of IDU Scale

Many people consider injecting drug use to be bad. There are many reasons why people may inject drugs. We would like you to rate the following statements in terms of whether you agree with them or not. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. Injecting drug users are responsible for their addiction.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. Injecting drug users can stop using drugs whenever they want to.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. Injecting drug use is related to the social circumstances that people find themselves in.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. Injecting drug users have no control over their drug use.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. If I were born in a dysfunctional home I would also inject drugs.
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. Injecting drug users need lots of help to stop using.
☐ SD ☐ D ☐ N ☐ A ☐ SA

7. Most injecting drug users come from disadvantaged social and economic backgrounds.
☐ SD ☐ D ☐ N ☐ A ☐ SA
8. People inject drugs to avoid dealing with their own inadequacies.
☐ SD ☐ D ☐ N ☐ A ☐ SA
9. Injecting drug users have weak characters.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. Injecting drug users will stop using if they have strong social support.
☐ SD ☐ D ☐ N ☐ A ☐ SA
11. Many normal people experiment with injecting drug use.
☐ SD ☐ D ☐ N ☐ A ☐ SA
12. Once you start injecting drugs you can never stop.
☐ SD ☐ D ☐ N ☐ A ☐ SA

Appendix 2

Scale validation study

Condition 1

Instructions

For each of the following statements, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. God has given mankind a complete, unfailing guide to happiness and salvation, which must be totally followed.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. *All* of the religions in the world have flaws and wrong teachings.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. Of all the people on this earth, one group has a special relationship with God because it believes the most in his revealed truths and tries the hardest to follow his laws.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. The long-established traditions in religion show the best way to honour and serve God, and should never be compromised.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. Religion must admit all its past failings, and adapt to modern life if it is to benefit humanity.
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. When you get right down to it, there are only two kinds of people in the world: the Righteous, who will be rewarded by God; and the rest, who will not.
☐ SD ☐ D ☐ N ☐ A ☐ SA

7. Different religions and philosophies have different versions of the truth, and may be equally right in their own way.
☐ SD ☐ D ☐ N ☐ A ☐ SA
8. The basic cause of evil in this world is Satan, who is still constantly and ferociously fighting against God.
☐ SD ☐ D ☐ N ☐ A ☐ SA
9. It is more important to be a good person than to believe in God and the right religion.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. No one religion is especially close to God, nor does God favour any particular group of believers.
☐ SD ☐ D ☐ N ☐ A ☐ SA
11. God will punish most severely those who abandon his true religion.
☐ SD ☐ D ☐ N ☐ A ☐ SA
12. No single book of religious writings contains all the important truths about life.
☐ SD ☐ D ☐ N ☐ A ☐ SA
13. It is silly to think people can be divided into “the Good” and “the Evil.” Everyone does some good, and some bad things.
☐ SD ☐ D ☐ N ☐ A ☐ SA
14. God’s true followers must remember that he requires them to *constantly* fight Satan and Satan’s allies on this earth.
☐ SD ☐ D ☐ N ☐ A ☐ SA
15. Parents should encourage their children to study all religions without bias, then make up their own minds about what to believe.
☐ SD ☐ D ☐ N ☐ A ☐ SA

16. There *is* a religion on this earth that teaches, without error, God's truth.
☐ SD ☐ D ☐ N ☐ A ☐ SA
17. "Satan" is just the name people give to their own bad impulses. There really is *no such thing* as a diabolical "Prince of Darkness" who tempts us.
☐ SD ☐ D ☐ N ☐ A ☐ SA
18. Whenever science and sacred scripture conflict, science must be wrong.
☐ SD ☐ D ☐ N ☐ A ☐ SA
19. There is *no* body of teachings, or set of scriptures, which is completely without error.
☐ SD ☐ D ☐ N ☐ A ☐ SA
20. To lead the best, most meaningful life, one must belong to the one, true religion.
☐ SD ☐ D ☐ N ☐ A ☐ SA
21. Have you attended a religious service of any kind in the past 12 months?

☐ Yes
☐ No
22. How important is religion in your life?

☐ Very important
☐ Somewhat important
☐ Not too important
☐ Not at all important

Instructions

Which of the following do you favour or believe in?

Circle 'Yes' or 'No'. If absolutely uncertain circle '?'

There are no right or wrong answers; just give your first reaction.

Answer all items

1.	Death Penalty	Yes	?	No
2.	Multiculturalism	Yes	?	No
3.	Stiffer jail terms	Yes	?	No
4.	Voluntary euthanasia	Yes	?	No
5.	Bible truth	Yes	?	No
6.	Gay rights	Yes	?	No
7.	Pre-marital virginity	Yes	?	No
8.	Asian immigration	Yes	?	No
9.	Church authority	Yes	?	No
10.	Legalised abortion	Yes	?	No
11.	Condom vending machines	Yes	?	No
12.	Legalised prostitution	Yes	?	No

Instructions

Many people consider injecting drug use to be bad. There are many reasons why people may inject drugs. We would like you to rate the following statements in terms of whether you agree with them or not. Please tick the appropriate box. Use the following scale:

SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. Injecting drug users are responsible for their addiction.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. Injecting drug users can stop using drugs whenever they want to.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. Injecting drug use is related to the social circumstances that people find themselves in.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. Injecting drug users have no control over their drug use.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. If I were born in a dysfunctional home I would also inject drugs.
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. Injecting drug users need lots of help to stop using.
☐ SD ☐ D ☐ N ☐ A ☐ SA
7. Most injecting drug users come from disadvantaged social and economic backgrounds.
☐ SD ☐ D ☐ N ☐ A ☐ SA
8. People inject drugs to avoid dealing with their own inadequacies.
☐ SD ☐ D ☐ N ☐ A ☐ SA

9. Injecting drug users have weak characters.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. Injecting drug users will stop using if they have strong social support.
☐ SD ☐ D ☐ N ☐ A ☐ SA
11. Many normal people experiment with injecting drug use.
☐ SD ☐ D ☐ N ☐ A ☐ SA
12. Once you start injecting drugs you can never stop.
☐ SD ☐ D ☐ N ☐ A ☐ SA

Instructions

The following statements are about HIV and AIDS. For each statement, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. Support groups for people with HIV infection would be very helpful to them.
☐ SD ☐ D ☐ N ☐ A ☐ SA

2. People should not be afraid of catching HIV from casual contact, like hugging or shaking hands.
☐ SD ☐ D ☐ N ☐ A ☐ SA

3. I think people with HIV infection got what they deserved.
☐ SD ☐ D ☐ N ☐ A ☐ SA

4. I would date a person with AIDS.
☐ SD ☐ D ☐ N ☐ A ☐ SA

5. No one deserves to have a disease like HIV infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA

6. I would allow my children to play with the children of someone known to have AIDS.
☐ SD ☐ D ☐ N ☐ A ☐ SA

7. I can tell by looking at someone if s/he has AIDS.
☐ SD ☐ D ☐ N ☐ A ☐ SA
8. HIV blood test results should be confidential to avoid discrimination.
☐ SD ☐ D ☐ N ☐ A ☐ SA
9. If I discovered my flatmate had AIDS, I would move out.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. Churches should take a strong stand against drug abuse and homosexuality to prevent the spread of AIDS.
☐ SD ☐ D ☐ N ☐ A ☐ SA
11. People with AIDS are not worth getting to know.
☐ SD ☐ D ☐ N ☐ A ☐ SA
12. People would not be so afraid of AIDS if they knew more about the disease.
☐ SD ☐ D ☐ N ☐ A ☐ SA
13. I would not avoid a friend if s/he had AIDS.
☐ SD ☐ D ☐ N ☐ A ☐ SA

Instructions

The following statements are about homosexuality. For each, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. The sight of two men kissing does not particularly bother me.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. In many ways, the AIDS disease killing homosexuals is just what they deserve.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. People should feel sympathetic and understanding of homosexuals, who are unfairly attacked in our society.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. I think homosexuals are disgusting.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. Sex between two men is just plain wrong.
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. Homosexuality is immoral.
☐ SD ☐ D ☐ N ☐ A ☐ SA
7. Homosexuality is a mental disorder.
☐ SD ☐ D ☐ N ☐ A ☐ SA

8. There should be no restrictions on homosexuality.
☐ SD ☐ D ☐ N ☐ A ☐ SA
9. Homosexuals should be accepted completely into our society.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. There is no reason to restrict the places where homosexuals work.
☐ SD ☐ D ☐ N ☐ A ☐ SA

About hepatitis C (hep C)

Hepatitis C is a viral infection that affects the liver. It is a big public health issue in Australia as there are over 230 000 people infected with hepatitis C and 16 000 new cases each year. Some people who contract the virus will clear it within 2-6 months of becoming infected, but most will go on to develop a chronic infection. Many people who are infected do not know they have the disease until decades later. Symptoms include jaundice, tiredness, lethargy, nausea, depression and muscular aches and pains. After 20 years, 5- 10% of people with chronic hepatitis will develop cirrhosis (scarring of the liver) and between 1-5% will develop liver cancer over 20-30 years. Hepatitis C can be treated, but treatment may take up to one year and is not always successful. Hepatitis C is most commonly transmitted via blood-to-blood contact. Over 90% of current infections are via injecting drug use. Other less common routes of infection include skin piercings, tattooing, needlestick injury and via blood products received before blood was screened for hepatitis C. As a result of the high percentage of transmissions via injecting drug use, hepatitis C has become associated with people who inject drugs.

Instructions

The following statements are about hepatitis C (hep C). For each statement, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. Limiting the spread of hep C is more important than trying to protect the rights of people with hep C.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. I would consider marrying someone with hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. Only disgusting people get hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. The 'injecting drug plague' is an appropriate way to describe hep C.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. People should not blame injecting drug users for the spread of hep C infection in Australia.
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. An employer should have the right to fire an employee with hep C infection regardless of the type of work s/he does.
☐ SD ☐ D ☐ N ☐ A ☐ SA
7. People with hep C should not be looked down upon by others.
☐ SD ☐ D ☐ N ☐ A ☐ SA

8. Health care workers should not refuse to care for people with hep C infection regardless of their personal feelings about the disease.
☐ SD ☐ D ☐ N ☐ A ☐ SA
9. Hep C infection is a punishment for immoral behaviour.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. The best way to get rid of hep C infection is to get rid of injecting drug users.
☐ SD ☐ D ☐ N ☐ A ☐ SA
11. Money being spent on hep C infection research should be spent instead on diseases that affect innocent people.
☐ SD ☐ D ☐ N ☐ A ☐ SA
12. I have no sympathy for injecting drug users who get hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
13. Hospitals and clinics should not refuse to admit patients with hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
14. The spread of hep C in our society illustrates how immoral Australia has become. ☐ SD ☐ D ☐ N ☐ A ☐ SA

Instructions

The following statements are about people who inject drugs. For each, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. I won't associate with known injecting drug users if I can help it.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. Injecting drug users should be locked up to protect society.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. Injecting drug users have a perfect right to their lifestyle, if that's the way they want to live.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. I wouldn't mind being seen smiling and chatting with a known injecting drug user.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. I would not be too upset if I learned that my child was an injecting drug user.
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. Injecting drug use is merely a different kind of lifestyle that should not be condemned.
☐ SD ☐ D ☐ N ☐ A ☐ SA
7. Injecting drug users are mistreated in our society.
☐ SD ☐ D ☐ N ☐ A ☐ SA

8. Injecting drug users do need psychological treatment.
☐ SD ☐ D ☐ N ☐ A ☐ SA
9. Those in favour of injecting drug use tend to be injecting drug users themselves.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. I avoid injecting drug users whenever possible.
☐ SD ☐ D ☐ N ☐ A ☐ SA

Appendix 3

Scales and questionnaire used in pre-testing of instruments for health care workers

Attitudes to IDU – odd items

Instructions

The following statements are about people who inject drugs. For each, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. I won't associate with known injecting drug users if I can help it.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. Injecting drug users should be locked up to protect society.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. Injecting drug users have a perfect right to their lifestyle, if that's the way they want to live.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. I wouldn't mind being seen smiling and chatting with a known injecting drug user.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. I would not be too upset if I learned that my child was an injecting drug user.
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. Injecting drug use is merely a different kind of lifestyle that should not be condemned.
☐ SD ☐ D ☐ N ☐ A ☐ SA

7. Injecting drug users are mistreated in our society.
☐ SD ☐ D ☐ N ☐ A ☐ SA
8. Injecting drug users do need psychological treatment.
☐ SD ☐ D ☐ N ☐ A ☐ SA
9. Those in favour of injecting drug use tend to be injecting drug users themselves.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. I avoid injecting drug users whenever possible.
☐ SD ☐ D ☐ N ☐ A ☐ SA

Attitudes to HCV – odd items

Instructions

The following statements are about hepatitis C (hep C). For each statement, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. Limiting the spread of hep C is more important than trying to protect the rights of people with hep C.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. I would consider marrying someone with hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. Only disgusting people get hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. The 'injecting drug plague' is an appropriate way to describe hep C.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. People should not blame injecting drug users for the spread of hep C infection in Australia.
☐ SD ☐ D ☐ N ☐ A ☐ SA
6. An employer should have the right to fire an employee with hep C infection regardless of the type of work s/he does.
☐ SD ☐ D ☐ N ☐ A ☐ SA

7. People with hep C should not be looked down upon by others.
☐ SD ☐ D ☐ N ☐ A ☐ SA
8. Health care workers should not refuse to care for people with hep C infection regardless of their personal feelings about the disease.
☐ SD ☐ D ☐ N ☐ A ☐ SA
9. Hep C infection is a punishment for immoral behaviour.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. The best way to get rid of hep C infection is to get rid of injecting drug users.
☐ SD ☐ D ☐ N ☐ A ☐ SA
11. Money being spent on hep C infection research should be spent instead on diseases that affect innocent people.
☐ SD ☐ D ☐ N ☐ A ☐ SA
12. I have no sympathy for injecting drug users who get hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
13. Hospitals and clinics should not refuse to admit patients with hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
14. The spread of hep C in our society illustrates how immoral Australia has become.
☐ SD ☐ D ☐ N ☐ A ☐ SA

Perceptions of the Controllability of IDU Scale

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. Injecting drug users are responsible for their addiction.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. Injecting drug users can stop using drugs whenever they want to.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. People inject drugs to avoid dealing with their own inadequacies.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. Injecting drug users have weak characters.
☐ SD ☐ D ☐ N ☐ A ☐ SA

Revised Conservatism Scale

Instructions

Which of the following do you favour or believe in?

Circle 'Yes' or 'No'. If absolutely uncertain circle '?'

There are no right or wrong answers; just give your first reaction.

Answer all items

1.	Death Penalty	Yes	?	No
2.	Multiculturalism	Yes	?	No
3.	Stiffer jail terms	Yes	?	No
4.	Voluntary euthanasia	Yes	?	No
5.	Bible truth	Yes	?	No
6.	Gay rights	Yes	?	No
7.	Pre-marital virginity	Yes	?	No
8.	Asian immigration	Yes	?	No
9.	Church authority	Yes	?	No
10.	Legalised abortion	Yes	?	No
11.	Condom vending machines	Yes	?	No
12.	Legalised prostitution	Yes	?	No

Treatment Experiences Questionnaire for Health Care Workers

The following questions are about your experiences with HCV positive patients. Please answer all questions below. Choose only **ONE option** when responding to the questions.

1. Roughly how many of your patients are HCV positive? (Cite approximate percentage)
_____ %
2. If you know that a patient is an injecting drug user, would you give them pain relief for a medical condition?
☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
3. If always, sometimes or even occasionally, what would you prescribe?

4. If no, why would you not prescribe pain medication?

In your experience, for the average HCV positive patient what percentage of his/her ***physical health*** concerns do you think are related

5. to his/her being an injecting drug user _____ %
6. to his/her being HCV positive _____ %
7. what percentage would be caused by neither _____ %

In your experience, for the average HCV positive patient, what percentage of his/her ***mental health*** concerns do you think are related

8. to his/her being an injecting drug user _____ %
9. to his/her being HCV positive _____ %
10. what percentage would be caused by neither _____ %

In your experience, for the average HCV positive patient, what percentage of his/her *social* concerns do you think are related

11. to his/her being an injecting drug user _____%
 12. to his/her being HCV positive _____%
 13. what percentage would be caused by neither _____%
-
14. If you requested a blood test for X who is HCV positive, are you likely to tell the person taking blood that X has HCV?

☐ Always
☐ Sometimes
☐ Occasionally
☐ Never

 15. If you would tell always, sometimes or even occasionally, why is this?

☐ It's policy and procedure of the surgery/clinic
☐ I feel obligated to tell the person taking blood
☐ I think it is in the best interests of both the client and the pathologist
☐ Other _____

 16. How do you give a patient a HCV positive test result?

☐ Tell results in person
☐ Tell results over the phone
☐ Get someone else to tell them the results
☐ Other _____

17. Where do you think an HCV positive patient should be placed on an operating list?

- ☐ The first patient of the day
- ☐ In the order in which they are booked in
- ☐ In the middle of the day
- ☐ The last patient of the day
- ☐ Other _____

18. Do you think HCV positive people should be encouraged to disclose their HCV positive status to health care workers?

- ☐ Always
- ☐ Sometimes
- ☐ Occasionally
- ☐ Never

19. If always, sometimes or occasionally, what would you say the main reason is?

- ☐ To protect the health care worker
- ☐ To protect the client
- ☐ It is in the best interest of both the client and the health care worker
- ☐ Other _____

Imagine that someone has made an appointment at your surgery/clinic. The patient is HCV positive and is a current injecting drug user. What are the issues that come up for you when you learn this history about your new patient.

20. He/she may be become aggressive

- ☐ Not a concern ☐ A minor concern ☐ A major concern

21. He/she may become violent

- ☐ Not a concern ☐ A minor concern ☐ A major concern

22. You fear for your personal safety
- ☐ Not a concern ☐ A minor concern ☐ A major concern
23. You fear he/she may steal something
- ☐ Not a concern ☐ A minor concern ☐ A major concern
24. He/she may pressure you for medications
- ☐ Not a concern ☐ A minor concern ☐ A major concern
25. You worry that he/she will interpret your behaviour as evidence that you are discriminating against him/her.
- ☐ Not a concern ☐ A minor concern ☐ A major concern
26. Your patient comes to see you and complains of headaches, muscle cramps, sweating and nausea. This patient has a history of injecting drug use and is HCV positive. The patient says he has flu. Would you agree with this diagnosis?
- ☐ Yes, I would agree
☐ I would be unsure
☐ No, I would not agree
27. Why do you agree or disagree
- _____
28. What medication would you give the patient _____

29. Another patient of yours presents with similar symptoms also complaining of headaches, muscle cramps, sweating and nausea. This patient has no history of injecting drug use and is not HCV positive. Would you do anything differently than the previous case?

☐ Yes, I would definitely diagnose differently

☐ Possibly, it would depend on the case

☐ No, I would not diagnose differently

30 If yes or possibly, what would you do differently?

Feeling thermometer (for health care workers)

IF THE SCALE BELOW WERE A THERMOMETER...

How would you rate your feelings toward injecting drug users, 0 being very cool and 100 being very warm?

0-----25-----50-----75-----100

Cool

Warm

Demographic Questions: Health Care Workers

Are you

- ☐ Male
- ☐ Female
- ☐ Transgender

☐ What is your age? _____

How important is religion in your life?

- ☐ Very important
- ☐ Somewhat important
- ☐ Not too important
- ☐ Not at all important

What type of medical practitioner are you?

What area is your practice/clinic located?

How would you describe this service?

- ☐ General practice
- ☐ Liver clinic
- ☐ Community health centre
- ☐ Primary health care facility
- ☐ Other

Appendix 4

Scales and questionnaire used in pre-testing of instruments for HCV positive clients

Questionnaire for HCV Positive Client

The following questions are about your experiences with your health care worker. Please answer all questions below. Choose only **ONE option** when responding to the questions.

1. On a scale of 1 to 10, 1 being poor and 10 being very good, how would you rate your current treatment by your health care worker?

2. Does your health care provider prescribe pain relief for you if you complain of pain?

☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
3. If always, sometimes or even occasionally, what are you prescribed?

4. If never, why do you think you are not given pain relief?

When you go to see your health care worker, how much of your general ***physical health*** concerns would you say your health care worker relates to your injecting drug use?

5. ☐ All
6. ☐ Some
7. ☐ A little
8. ☐ None

9. When you go to see your health care worker, how much of your general ***physical health*** concerns would you say your health care worker relates to your being a HCV positive?

- ☐ All
- ☐ Some
- ☐ A little
- ☐ None

10. When you go to see your health care worker, how much of your general ***physical health*** concerns would you say your health care worker relates to neither your injecting drug use nor your HCV status?

- ☐ All
- ☐ Some
- ☐ A little
- ☐ None

11. When you go to see your health care worker, how much of your general mental or emotional concerns would you say your health care worker relates to your being an injecting drug user?

- ☐ All
- ☐ Some
- ☐ A little
- ☐ None

12. When you go to see your health care worker, how much of your general ***physical health*** concerns would you say your health care worker relates to your being HCV positive?

- ☐ All
- ☐ Some
- ☐ A little
- ☐ None

13. When you go to see your health care worker, how much of your general *physical health* concerns would you say your health care worker relates to your being neither HCV positive nor an injecting drug user?

- ☐ All
- ☐ Some
- ☐ A little
- ☐ None

14. How long do your consultations with your health care worker usually last?

- ☐ Five minutes or less
- ☐ Five to ten minutes
- ☐ Ten to fifteen minutes
- ☐ Fifteen to twenty minutes
- ☐ More than twenty minutes

The last time you had a hepatitis C antibody or hepatitis C PCR test test, did your health care worker

- | | |
|---|--|
| 15. give you counselling before the test | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure <input type="checkbox"/> NA |
| 16. give you counselling after the test | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure <input type="checkbox"/> NA |
| 17. tell you your test results in person | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure <input type="checkbox"/> NA |
| 18. tell you your test results over the phone | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure <input type="checkbox"/> NA |
| 19. get someone else to tell you the results | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure <input type="checkbox"/> NA |

20. When you have blood drawn, does the person drawing blood always wear gloves?

- ☐ Always
- ☐ Sometimes
- ☐ Occasionally
- ☐ Never

21. If your health care worker has sent you somewhere to have blood taken, have they told the person taking blood that you are HCV positive?
- ☐ Yes
- ☐ No
22. If you had a complaint about your health care worker, do you think this would be taken seriously?
- ☐ Always
- ☐ Sometimes
- ☐ Occasionally
- ☐ Never
23. If never, what do you think is the main reason for this complaint not being taken seriously?
- _____
24. You go to see a new doctor and decide to tell this doctor that you are HCV positive and are currently an injecting drug user. Do you feel that anything changes after you have disclosed this information?
- ☐ Yes
- ☐ Not sure
- ☐ No
25. If yes, what do you think changes
- _____
26. Do you feel welcome when you go to visit your health care worker?
- ☐ Always
- ☐ Sometimes
- ☐ Occasionally
- ☐ Never

Do you have any of the following concerns when you go and see your health care worker?

27. The staff should be more friendly
☐ Not a concern ☐ A minor concern ☐ A major concern
28. The waiting time should be less
☐ Not a concern ☐ A minor concern ☐ A major concern
29. I should not be made to feel like I will rob them
☐ Not a concern ☐ A minor concern ☐ A major concern
30. I should not be made to feel like I am pressuring them for medications
☐ Not a concern ☐ A minor concern ☐ A major concern
31. I should not be made to feel like I am a risk to their safety
☐ Not a concern ☐ A minor concern ☐ A major concern
32. I should not be made to feel like I will not follow a treatment plan
☐ Not a concern ☐ A minor concern ☐ A major concern
33. When you go to the doctor or a clinic, are you encouraged to disclose your HCV status?

☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
34. If always, sometimes or occasionally, why do you think that was?

Questionnaire for HCV Negative Client

The following questions are about your experiences your health care worker. Please answer all questions below. Choose only **ONE option** when responding to the questions.

1. On a scale of 1 to 10, 1 being poor and 10 being very good, how would you rate your current treatment by your health care worker?

2. Does your health care provider prescribe pain relief for you if you complain of pain?

☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
3. If always, sometimes or even occasionally, what are you prescribed?

4. If never, why do you think you are not given pain relief?

5. How long do your consultations with your health care worker usually last?

☐ Five minutes or less
☐ Ten minutes or less
☐ Fifteen minutes or less
☐ Twenty minutes or less
☐ More than twenty minutes
6. Have you ever had a hepatitis C antibody test?

☐ Yes
☐ No

If yes,

7. did you have counselling before the test
☐ Yes ☐ No ☐ Not Sure ☐ NA
8. were you told your test results in person
☐ Yes ☐ No ☐ Not Sure ☐ NA
9. were you told your test result over the phone
☐ Yes ☐ No ☐ Not Sure ☐ NA
10. did someone other than your health care provider tell you the results
☐ Yes ☐ No ☐ Not Sure ☐ NA
11. When you have blood drawn, does the person drawing blood always wear gloves?

☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
12. If you have a complaint about your health care worker, do you think this would be taken seriously?

☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
13. If never, what do you think is the main reason for this complaint not being taken seriously?

14. Do you feel welcome when you go to visit your health care worker?

- ☐ Always
- ☐ Sometimes
- ☐ Occasionally
- ☐ Never

Do you have any of the following concerns when you go and see your health care worker?

15. The staff should be more friendly

- ☐ Not a concern ☐ A minor concern ☐ A major concern

16. The waiting time should be less

- ☐ Not a concern ☐ A minor concern ☐ A major concern

17. I should not be made to feel like I will rob them

- ☐ Not a concern ☐ A minor concern ☐ A major concern

18. I should not be made to feel like I am pressuring them for medications

- ☐ Not a concern ☐ A minor concern ☐ A major concern

19. I should not be made to feel like I am a risk to their safety

- ☐ Not a concern ☐ A minor concern ☐ A major concern

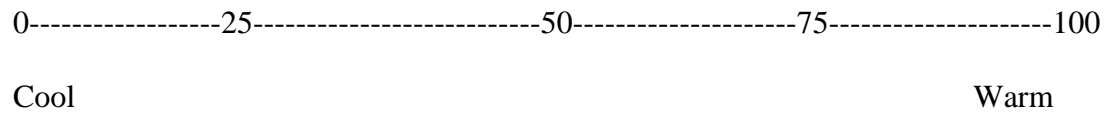
20. I should not be made to feel like I will not follow a treatment plan

- ☐ Not a concern ☐ A minor concern ☐ A major concern

Feeling thermometer (for HCV positive IDU clients and HCV negative non-IDU clients)

IF THE SCALE BELOW WERE A THERMOMETER...

How would you rate your feelings toward your health care worker, 0 being very cool and 100 being very warm?



Demographic Questions: HCV Positive and HCV Negative Clients

Are you

- ☐ Male
- ☐ Female
- ☐ Transgender

What is your age? _____

What is your highest level of education

- ☐ Primary school only
- ☐ up to year 10
- ☐ up to year 12
- ☐ diploma or trade certificate
- ☐ attended uni
- ☐ completed undergrad degree
- ☐ completed postgrad degree
- ☐ no response

What us your main source income

- ☐ Full time work
- ☐ Part time/casual work
- ☐ The dole or temporary benefit
- ☐ Pension (disability)
- ☐ Dealing
- ☐ Sex work
- ☐ Other
- ☐ No response

Appendix 5

Scales and questionnaire for health care workers used in the main study

Final Attitude to HCV (11 items) and Attitude to IDU (5 items) Scales

Instructions

The following statements are about hepatitis C (hep C) and injecting drug use. For each statement, please note whether you agree or disagree with the statement. There are no correct answers, only your opinions. Please tick the appropriate box. Use the following scale:

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. Only disgusting people get hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. The 'injecting drug plague' is an appropriate way to describe hep C.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. People should not blame injecting drug users for the spread of hep C infection in Australia.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. An employer should have the right to fire an employee with hep C infection regardless of the type of work s/he does.
☐ SD ☐ D ☐ N ☐ A ☐ SA
5. People with hep C should not be looked down upon by others.
☐ SD ☐ D ☐ N ☐ A ☐ SA

6. Health care workers should not refuse to care for people with hep C infection regardless of their personal feelings about the disease.
☐ SD ☐ D ☐ N ☐ A ☐ SA
7. Money being spent on hep C infection research should be spent instead on diseases that affect innocent people.
☐ SD ☐ D ☐ N ☐ A ☐ SA
8. I have no sympathy for injecting drug users who get hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
9. Hospitals and clinics should not refuse to admit patients with hep C infection.
☐ SD ☐ D ☐ N ☐ A ☐ SA
10. The spread of hep C in our society illustrates how immoral Australia has become. ☐ SD ☐ D ☐ N ☐ A ☐ SA
11. Limiting the spread of hep C is more important than trying to protect the rights of people with hep C.
☐ SD ☐ D ☐ N ☐ A ☐ SA
12. Injecting drug users should be locked up to protect society.
☐ SD ☐ D ☐ N ☐ A ☐ SA
13. Injecting drug users have a perfect right to their lifestyle, if that's the way they want to live.
☐ SD ☐ D ☐ N ☐ A ☐ SA
14. Injecting drug use is merely a different kind of lifestyle that should not be condemned.
☐ SD ☐ D ☐ N ☐ A ☐ SA

15. Injecting drug users are mistreated in our society.
☐ SD ☐ D ☐ N ☐ A ☐ SA
16. I avoid injecting drug users whenever possible
☐ SD ☐ D ☐ N ☐ A ☐ SA

Perceptions of the Controllability of IDU Scale

- SD: Strongly disagree with the statement
D: Disagree with the statement
N: Neither agree nor disagree with the statement
A: Agree with the statement
SA: Strongly agree with the statement

1. Injecting drug users are responsible for their addiction.
☐ SD ☐ D ☐ N ☐ A ☐ SA
2. Injecting drug users can stop using drugs whenever they want to.
☐ SD ☐ D ☐ N ☐ A ☐ SA
3. People inject drugs to avoid dealing with their own inadequacies.
☐ SD ☐ D ☐ N ☐ A ☐ SA
4. Injecting drug users have weak characters.
☐ SD ☐ D ☐ N ☐ A ☐ SA

Conservatism Scale

Instructions

Which of the following do you favour or believe in?

Circle 'Yes' or 'No'. If absolutely uncertain circle '?'

There are no right or wrong answers; just give your first reaction.

Answer all items

1.	Death Penalty	Yes	?	No
2.	Multiculturalism	Yes	?	No
3.	Stiffer jail terms	Yes	?	No
4.	Voluntary euthanasia	Yes	?	No
5.	Bible truth	Yes	?	No
6.	Gay rights	Yes	?	No
7.	Pre-marital virginity	Yes	?	No
8.	Asian immigration	Yes	?	No
9.	Church authority	Yes	?	No
10.	Legalised abortion	Yes	?	No
11.	Condom vending machines	Yes	?	No
12.	Legalised prostitution	Yes	?	No

Questionnaire for health care workers

The following questions are about your experiences with HCV positive patients. Please answer all questions below. Choose only **ONE option** when responding to the questions.

1. Roughly how many of your patients are HCV positive? (Cite approximate percentage)

_____ %

2. If you know that a patient is an injecting drug user, do you give them pain relief for a medical condition?

- ☐ Always
☐ Sometimes
☐ Occasionally
☐ Never

3. If always, sometimes or even occasionally, what would you prescribe?

4. If no, why would you not prescribe pain medication?

5. In your practice, what percentage of your HCV positive patients are currently injecting drug users?

6. In your practice, what percentage of your HCV positive patients are past injecting drug users?

7. In your experience, for the average HCV positive patient who is currently an injecting drug user how much of his/her ***physical health*** concerns do you think are related to being an injecting drug user?
- ☐ All
- ☐ Some
- ☐ A little
- ☐ None
8. In your experience, for the average HCV positive patient who is currently an injecting drug user how much of his/her ***physical health*** concerns do you think are related to being HCV positive?
- ☐ All
- ☐ Some
- ☐ A little
- ☐ None
9. In your experience, for the average HCV positive patient who is currently an injecting drug user how much of his/her **physical health concerns** are related to neither his/her injecting drug user nor HCV status?
- ☐ All
- ☐ Some
- ☐ A little
- ☐ None
10. In your experience, for the average HCV positive patient who is currently an injecting drug user how much of his/her **mental or emotional health** concerns do you think are related to being an injecting drug user?
- ☐ All
- ☐ Some
- ☐ A little
- ☐ None

11. In your experience, for the average HCV positive patient who is currently an injecting drug user how much of his/her **mental or emotional health** concerns do you think are related to being HCV positive?
- ☐ All
- ☐ Some
- ☐ A little
- ☐ None
12. In your experience, for the average HCV positive patient who is currently an injecting drug user how much of his/her **mental or emotional health** concerns do you think are related to neither his/her injecting drug use nor HCV status?
- ☐ All
- ☐ Some
- ☐ A little
- ☐ None
13. How do you give a patient a HCV positive test result?
- ☐ Tell results in person
- ☐ Tell results over the phone
- ☐ Get someone else to tell them the results
- ☐ Other _____
14. Where do you think an HCV positive patient should be placed on an operating list?
- ☐ The first patient of the day
- ☐ In the order in which they are booked in
- ☐ In the middle of the day
- ☐ The last patient of the day
- ☐ Other _____

15. Do you think HCV positive people should be encouraged to disclose their HCV positive status to health care workers?
- ☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
16. If always, sometimes or occasionally, what would you say the main reason is?
- ☐ To protect the health care worker
☐ To protect the client
☐ It is in the best interest of both the client and the health care worker
☐ Other _____

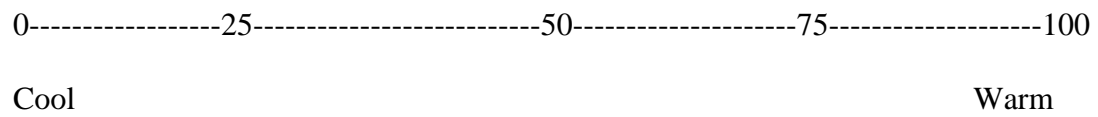
Imagine that someone has made an appointment at your surgery/clinic. The patient is HCV positive and is a current injecting drug user. What are the issues that come up for you when you learn this history about your new patient.

17. He/she may become aggressive
☐ Not a concern ☐ A minor concern ☐ A major concern
18. You fear for your personal safety
☐ Not a concern ☐ A minor concern ☐ A major concern
19. You fear he/she may steal something
☐ Not a concern ☐ A minor concern ☐ A major concern
20. He/she may pressure you for medications
☐ Not a concern ☐ A minor concern ☐ A major concern
21. Worry that s/he will not follow a treatment plan
☐ Not a concern ☐ A minor concern ☐ A major concern
22. Worry that he/she will interpret my behaviour as evidence that I am discriminating against him/her.
☐ Not a concern ☐ A minor concern ☐ A major concern

Feeling thermometer (for health care workers)

IF THE SCALE BELOW WERE A THERMOMETER...

How would you rate your feelings toward injecting drug users, 0 being very cool and 100 being very warm?



Demographic Questions: Health Care Workers

Are you

- ☐ Male
- ☐ Female
- ☐ Transgender

What is your age? _____

How important is religion in your life?

- ☐ Very important
- ☐ Somewhat important
- ☐ Not too important
- ☐ Not at all important

What type of medical practitioner are you

What area is your practice/clinic located?

How would you describe this service?

- ☐ General practice
- ☐ Liver clinic
- ☐ Community health centre
- ☐ Primary health care facility
- ☐ Other

Appendix 6

Scales and questionnaire for HCV positive and HCV negative clients used in the main study

Questionnaire for HCV Positive Client

The following questions are about your experiences with your health care worker. Please answer all questions below. Choose only **ONE option** when responding to the questions.

1. On a scale of 1 to 10, 1 being poor and 10 being very good, how would you rate your current treatment by your health care worker?

2. Does your health care provider prescribe pain relief for you if you complain of pain?

☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
3. If always, sometimes or even occasionally, what are you prescribed?

4. If never, why do you think you are not given pain relief?

When you go to see your health care worker, how much of your general ***physical health*** concerns would you say your health care worker relates to your injecting drug use?

5. ☐ All
6. ☐ Some
7. ☐ A little
8. ☐ None

9. When you go to see your health care worker, how much of your general ***physical health*** concerns would you say your health care worker relates to your being a HCV positive?

- ☐ All
- ☐ Some
- ☐ A little
- ☐ None

10. When you go to see your health care worker, how much of your general ***physical health*** concerns would you say your health care worker relates to neither your injecting drug use nor your HCV status?

- ☐ All
- ☐ Some
- ☐ A little
- ☐ None

11. When you go to see your health care worker, how much of your general mental or emotional concerns would you say your health care worker relates to your being an injecting drug user?

- ☐ All
- ☐ Some
- ☐ A little
- ☐ None

12. When you go to see your health care worker, how much of your general ***physical health*** concerns would you say your health care worker relates to your being HCV positive?

- ☐ All
- ☐ Some
- ☐ A little
- ☐ None

13. When you go to see your health care worker, how much of your general ***physical health*** concerns would you say your health care worker relates to your being neither HCV positive nor an injecting drug user?

- ☐ All
- ☐ Some
- ☐ A little
- ☐ None

14. How long do your consultations with your health care worker usually last?

- ☐ Five minutes or less
- ☐ Five to ten minutes
- ☐ Ten to fifteen minutes
- ☐ Fifteen to twenty minutes
- ☐ More than twenty minutes

The last time you had a hepatitis C antibody or hepatitis C PCR test test, did your health care worker

- | | |
|---|--|
| 15. give you counselling before the test | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure <input type="checkbox"/> NA |
| 16. give you counselling after the test | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure <input type="checkbox"/> NA |
| 17. tell you your test results in person | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure <input type="checkbox"/> NA |
| 18. tell you your test results over the phone | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure <input type="checkbox"/> NA |
| 19. get someone else to tell you the results | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure <input type="checkbox"/> NA |

20. When you have blood drawn, does the person drawing blood always wear gloves?

- ☐ Always
- ☐ Sometimes
- ☐ Occasionally
- ☐ Never

21. If you had a complaint about your health care worker, do you think this would be taken seriously?

- ☐ Always
- ☐ Sometimes
- ☐ Occasionally
- ☐ Never

22. If never, what do you think is the main reason for this complaint not being taken seriously?

23. You go to see a new doctor and decide to tell this doctor that you are HCV positive and are currently an injecting drug user. Do you feel that anything changes after you have disclosed this information?

- ☐ Yes
- ☐ Not sure
- ☐ No

24. If yes, what do you think changes

25. Do you feel welcome when you go to visit your health care worker?

- ☐ Always
- ☐ Sometimes
- ☐ Occasionally
- ☐ Never

Do you have any of the following concerns when you go and see your health care worker?

26. The staff should be more friendly
☐ Not a concern ☐ A minor concern ☐ A major concern
27. The waiting time should be less
☐ Not a concern ☐ A minor concern ☐ A major concern
28. I should not be made to feel like I will rob them
☐ Not a concern ☐ A minor concern ☐ A major concern
29. I should not be made to feel like I am pressuring them for medications
☐ Not a concern ☐ A minor concern ☐ A major concern
30. I should not be made to feel like I am a risk to their safety
☐ Not a concern ☐ A minor concern ☐ A major concern
31. I should not be made to feel like I will not follow a treatment plan
☐ Not a concern ☐ A minor concern ☐ A major concern
32. When you go to the doctor or a clinic, are you encouraged to disclose your HCV status?
- ☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
33. If always, sometimes or occasionally, why do you think that was?

Questionnaire for HCV Negative Client

The following questions are about your experiences your health care worker. Please answer all questions below. Choose only **ONE option** when responding to the questions.

1. On a scale of 1 to 10, 1 being poor and 10 being very good, how would you rate your current treatment by your health care worker?

2. Does your health care provider prescribe pain relief for you if you complain of pain?
☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
3. If always, sometimes or even occasionally, what are you prescribed?

4. If never, why do you think you are not given pain relief?

5. How long do your consultations with your health care worker usually last?
☐ Five minutes or less
☐ Ten minutes or less
☐ Fifteen minutes or less
☐ Twenty minutes or less
☐ More than twenty minutes
6. Have you ever had a hepatitis C antibody test?
☐ Yes
☐ No

If yes,

7. did you have counselling before the test
☐ Yes ☐ No ☐ Not Sure ☐ NA
8. were you told your test results in person
☐ Yes ☐ No ☐ Not Sure ☐ NA
9. were you told your test result over the phone
☐ Yes ☐ No ☐ Not Sure ☐ NA
10. did someone other than your health care provider tell you the results
☐ Yes ☐ No ☐ Not Sure ☐ NA
11. When you have blood drawn, does the person drawing blood always wear gloves?

☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
12. If you have a complaint about your health care worker, do you think this would be taken seriously?

☐ Always
☐ Sometimes
☐ Occasionally
☐ Never
13. If never, what do you think is the main reason for this complaint not being taken seriously?

14. Do you feel welcome when you go to visit your health care worker?

- ☐ Always
- ☐ Sometimes
- ☐ Occasionally
- ☐ Never

Do you have any of the following concerns when you go and see your health care worker?

15. The staff should be more friendly

- ☐ Not a concern ☐ A minor concern ☐ A major concern

16. The waiting time should be less

- ☐ Not a concern ☐ A minor concern ☐ A major concern

17. I should not be made to feel like I will rob them

- ☐ Not a concern ☐ A minor concern ☐ A major concern

18. I should not be made to feel like I am pressuring them for medications

- ☐ Not a concern ☐ A minor concern ☐ A major concern

19. I should not be made to feel like I am a risk to their safety

- ☐ Not a concern ☐ A minor concern ☐ A major concern

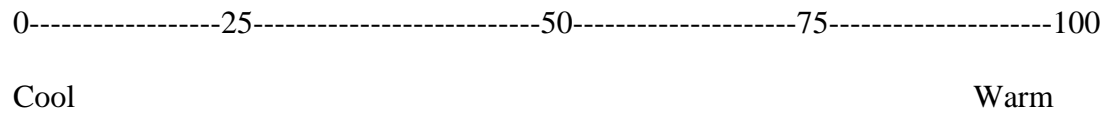
20. I should not be made to feel like I will not follow a treatment plan

- ☐ Not a concern ☐ A minor concern ☐ A major concern

HCW feeling thermometer (for HCV positive IDU clients and HCV negative non-IDU clients)

IF THE SCALE BELOW WERE A THERMOMETER...

How would you rate your feelings toward your health care worker, 0 being very cool and 100 being very warm?



Demographic Questions: HCV Positive and HCV Negative Clients

Are you

- ☐ Male
- ☐ Female
- ☐ Transgender

What is your age? _____

What is your highest level of education?

- ☐ Primary school only
- ☐ up to year 10
- ☐ up to year 12
- ☐ diploma or trade certificate
- ☐ attended uni
- ☐ completed undergrad degree
- ☐ completed postgrad degree
- ☐ no response

What is your main source of income?

- ☐ Full time work
- ☐ Part time/casual work
- ☐ The dole or temporary benefit
- ☐ Pension (disability)
- ☐ Dealing
- ☐ Sex work
- ☐ Other
- ☐ No response

Appendix 7

Recruitment material

DO YOU HAVE HEPATITIS C?

EARN \$20 AND CONTRIBUTE TO
RESEARCH!

WE ARE RECRUITING PEOPLE WITH
HEPATITIS C TO COMPLETE A 15 MINUTE
INTERVIEW ABOUT THEIR HEALTH CARE
EXPERIENCES.

To find out more please phone Loren on
9385 3078 or 0404 033 413. If you agree
to a short interview you will be paid \$20
for your time.

A study in the National Centre in HIV Social Research and the School of
Psychology, University of New South Wales.

EARN \$20 AND CONTRIBUTE TO
RESEARCH!

WE ARE RECRUITING PEOPLE TO
COMPLETE A 15 MINUTE INTERVIEW
ABOUT THEIR HEALTH CARE
EXPERIENCES.

To find out more please phone Loren on
9385 3078 or 0404 033 413. If you agree
to a short interview you will be paid \$20
for your time.

A study in the National Centre in HIV Social Research and the School of
Psychology, University of New South Wales.

DO YOU USE DRUGS BUT NOT INJECT?

ARE YOU HEP C NEGATIVE?

**EARN \$20 AND CONTRIBUTE TO
RESEARCH!**

**WE ARE RECRUITING PEOPLE TO
COMPLETE A 15 MINUTE INTERVIEW
ABOUT THEIR HEALTH CARE
EXPERIENCES.**

**To find out more please phone Loren on
9385 3078 or 0404 033 413. If you agree
to a short interview you will be paid \$20
for your time.**

**A study in the National Centre in HIV Social Research and the School of
Psychology, University of New South Wales.**

Appendix 8

Treatment Experience Items

Treatment Experiences Items for HCV Positive and HCV Negative Clients

The following questions are about your experiences with your health care worker. Please answer all questions below. Choose only **ONE option** when responding to the questions.

1. On a scale of 1 to 10, 1 being poor and 10 being very good, how would you rate your current treatment by your health care worker?

2. How long do your consultations with your health care worker usually last?
 - ☐ Five minutes or less
 - ☐ Five to ten minutes
 - ☐ Ten to fifteen minutes
 - ☐ Fifteen to twenty minutes
 - ☐ More than twenty minutes

3. Do you feel welcome when you go to visit your health care worker?
 - ☐ Always
 - ☐ Sometimes
 - ☐ Occasionally
 - ☐ Never

Do you have any of the following concerns when you go and see your health care worker?

4. I should not be made to feel like I will rob them
☐ Not a concern ☐ A minor concern ☐ A major concern
5. I should not be made to feel like I am pressuring them for medications
☐ Not a concern ☐ A minor concern ☐ A major concern
6. I should not be made to feel like I am a risk to their safety
☐ Not a concern ☐ A minor concern ☐ A major concern
7. I should not be made to feel like I will not follow a treatment plan
☐ Not a concern ☐ A minor concern ☐ A major concern

Appendix 9

Health care worker worry items

Health Care Worker Worry Scale

Imagine that someone has made an appointment at your surgery/clinic. The patient is HCV positive and is a current injecting drug user. What are the issues that come up for you when you learn this history about your new patient.

1. You fear for your personal safety
☐ Not a concern ☐ A minor concern ☐ A major concern
2. You fear he/she may steal something
☐ Not a concern ☐ A minor concern ☐ A major concern
3. He/she may pressure you for medications
☐ Not a concern ☐ A minor concern ☐ A major concern
4. Worry that s/he will not follow a treatment plan
☐ Not a concern ☐ A minor concern ☐ A major concern