# An Assessment of the Differences in Staff Beliefs about Substance Abuse in Mental Health and Addiction Treatment Centres

by

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Abstract

This study sought to ascertain whether staff in mental health and addiction treatment centres in Thunder Bay, Ontario, endorsed a disease, eclectic or psychosocial approach with respect to their beliefs about the etiology and appropriate treatment of substance abuse. The Short Understanding of Substance Abuse Scale (SUSS) was administered to treatment staff from various disciplines to assess their beliefs about addiction. Two hundred and fifty-five questionnaire packages were distributed and one hundred and fifteen were completed. This yielded a response rate of 45 %. Sister Margaret Smith Centre treatment staff, addictions employees, counsellors, and staff with higher levels of addictions training were more likely to have a history of drug or alcohol problems. As well, treatment staff with a history of drug and/or alcohol problems, employees with lower education levels, and medical staff were found to score higher on the disease model of addiction. It is important to recognize that the disease model still plays a strong role in shaping beliefs about substance abuse.

# Differences in Staff Beliefs about Substance Abuse in Mental Health and Addiction Treatment Centres

## Extent and Effects of Substance Use

At the beginning of the third millennium substance misuse has not yet been eradicated or controlled in North America and the impact of substance misuse is staggering. Surveys conducted with the general population find that one in ten adults report alcohol problems (Lapham, Hall, McMurray-Avila, & Beaman, 1993). Illicit drugs are consumed by 7 % of American adults and tobacco is consumed on a regular basis by one quarter of U.S. adults (Kessler, 1995). Substance misuse is linked to a range of legal and social problems. The use of street drugs may be responsible for more than 25 % of property crimes and 15 % of violent crimes (Beck, Wright, Newman, & Liese, 1993). The consumption of alcohol, by both victim and perpetrator, is implicated in over 60 % of homicides (Taylor & Chermack, 1995). Alcohol use is involved in many incidents of domestic violence. One study's findings are that 75 % of all wives of alcoholics have been threatened by their husbands, and 45 % of wives of alcoholics have been assaulted by their spouse (American Medical Association, 1992). In addition, car accidents involving alcohol consumption are the leading cause of death in adolescents (Li, Smith, & Baker, 1994). Furthermore, alcohol and other drug consumption heightens ones susceptibility to HIV exposure and AIDS (Miller & Brown, 1997). Injection drug use is the cause of approximately one third of documented American adolescent and adult AIDS cases (Centers for Disease Control and Prevention [CDC], 1994).

Substance abuse can also increase one's vulnerability for or directly cause serious physical health problems. Chronic alcohol consumption leads to irreversible medical conditions such as cirrhosis of the liver, fetal alcohol syndrome, and Korsakoff syndrome (Abadinsky,

2001). Cocaine can damage the neurological, cardiovascular, and respiratory systems. Methamphetamine, quickly becoming "America's Most Dangerous Drug" (Jefferson, 2005), can cause stroke and liver damage. Nicotine is specifically implicated in the development of lung cancer and heart disease. In Canada, the health-care cost of alcohol is 27 % of the GDP (Murthy, 2001). "As of 1995, the cost of substance abuse to society was about $276 billion, and the cost of drug abuse and addiction alone was about $110 billion" (Beal, 2003, p. 117). Thus, burgeoning health care costs ensue from the general population's substance misuse.

## Comorbidity

Substance abuse is particularly problematic with individuals who suffer from mental disorders. Findings from the Epidemiologic Catchment Area (ECA) study are that almost a third of individuals with a mental disorder have experienced a substance abuse disorder at some point in their life (22 % an alcohol disorder, and 15 % another drug disorder) (Regier et al., 1990). As well, one third of individuals with an alcohol disorder (37 %) have experienced another mental disorder, and half of those with other drug use disorders have experienced another mental disorder. The ECA study also found that individuals with certain mental disorders are at increased risk of developing substance abuse disorders. Amongst individuals with alcohol use disorders, the most prevalent comorbid disorders are anxiety disorders (19 %), antisocial personality disorders (14 %), affective disorders (13 %) and schizophrenia (4 %). Amongst individuals with other drug disorders, the most prevalent comorbid disorders are anxiety disorders (28 %), affective disorders (26 %), antisocial personality disorders (18 %) and schizophrenia (7 %) (Regier et al.,1990). As well, results from the ECA study show that one third of individuals with affective disorders (32 %) also have substance abuse disorders (22 % for an alcohol disorder and 19 % for another drug disorder) (Regier et al., 1990). Depression is

especially common among individuals who suffer from cocaine dependence. It is estimated that the co-occurrence of depression and cocaine dependence ranges from 33 % to 53 % (Kleinman, Miller, & Millman, 1994). Opiate dependent people also have a high rate of depression, with estimates as high as 75 % (Brooner, King, Kidorf, Schmidt, & Bigelow, 1997). In addition, research has found that close to 60 % of people with substance abuse disorders have personality disorders (Skodol, Oldham, & Gallagher, 1999).

The rationale behind the issue of comorbidity is that people may be using substances in a maladaptive way because they are self-medicating their other psychological problems. Clinical research has supported the self-medication hypothesis. One study found that patients diagnosed with depression were more likely to abuse opioids than patients diagnosed with schizophrenia or bipolar disorder. The authors of the previously mentioned study state that, "the analgesic qualities of opiate drugs may negatively reinforce depressive symptoms, especially emotional pain" (Blume, Schmaling, & Marlatt, 2000, p. 379). As well, research has shown that individuals use substances to self-medicate anxiety disorders such as social phobia and generalized anxiety disorder (Kushner, Sher, Wood, & Wood, 1994). However, it is important to note that studies have also found that substance use can provoke and/or exacerbate psychological symptoms (Blume, et al., 2000). For example, substance use has been found to trigger depressive episodes and panic attacks (Kushner et al., 1994). Therefore, other disorders and symptoms need to be simultaneously treated with the substance abuse. A broader range of causal factors and interactions need to be explored in the comorbidity of psychological and substance use disorders. Comorbidity is so commonplace and mental health practitioners are likely to come face to face with patients who have comorbid disorders, even when working in treatment domains tailored to the needs of patients with specific disorders.

The existence of co-occurring mental disorders complicates the assessment and treatment process for both patients and treatment staff. Individuals with dual diagnoses of substance abuse and other psychological disorders have a poor track record for the consistency in which they attend treatment (Hall, Popkin, DeVaul, & Stickney, 1977). As well, they tend to drop out of treatment prematurely (Osher & Kofoed, 1989) and comply poorly with their prescribed medications (Pristach & Smith, 1990). There is also evidence that dually diagnosed patients are at a higher risk for violent behaviour (Swanson, 1993) and are more likely to undergo psychiatric hospitalizations (Drake, Osher, & Wallach, 1989; Safer, 1987). The fact remains that those patients with alcohol use disorders and other comorbid mental disorders have a poorer prognosis and are more likely to use medical services (Kessler, 1995). The same can be expected of patients with other drug use disorders and comorbid mental disorders.

## Need for Crosstraining

Given the extra complications occurring with comorbidity it is therefore not sufficient for addictions staff to limit their expertise and training to addictions. Addictions professionals should also have background training in the treatment of other mental disorders. The same is true for professionals treating patients in general medical settings or general mental health settings. It is equally important for mental health professionals to have training in the treatment of alcohol and other drug use disorders. This is especially necessary given the fact that substance use disorders are so prevalent in primary care (Wallace, Cutler, & Haines, 1988) and general hospital settings (Elvy, Wells, & Baird, 1988). In fact, approximately 12 % of patients in general medical settings meet DSM IV criterion for alcohol abuse or dependence and another 4 % drink excessively (Bradley & Larson, 1994). It has been estimated that 25 % of patients hospitalized for medical reasons have problems with alcohol (Kichipodi, Hobeing, Flickinger, &

Iber, 1990). Thus, there should be more integration in the health care system so patients with both mental and substance use disorders receive equal attention and treatment for their problems.

## Mental Health and Addictions: Separated Treatment Systems

Despite the fact that a high number of individuals suffer from comorbid substance abuse and other psychological disorders, systems of health care continue to be separated in their treatment practices and perspectives. Often, even comorbid mental and substance use disorders are ignored in centres where services specialize in treating either mental health disorders or substance use disorders (Hall & Farrell, 1997). The division of mental health and addiction services can be traced back several decades to when substance abuse treatment programs were initiated outside of psychiatry and psychology. The separation was a result of addiction being declared a disease and insurance companies agreeing to pay for treatment (Miller & Swift, 1997). However, traditional psychology and psychiatric programs still did not endorse the disease conceptualization of addiction. The addictions view that substance abuse is an independent medical condition with psychological repercussions conflicts with the psychiatric, psychological or mental health perspective that addiction stems from underlying mental conflict (Miller, 1994). Although the latter explanation for the causes of addiction is no longer widely accepted, remnants of this belief may still continue to exist in general mental heath treatment centres.

The practice of not acknowledging comorbid mental disorders is potentially harmful for patients with substance use disorders and, in this case, poorer outcome is usually predicted (McLelland et al., 1983; Helzer & Psyzbeck, 1988). It is still the case that specialist mental health services (i.e., addiction treatment centres) do not identify or treat anxiety and mood disorders to the extent that they should (Hall & Farrell, 1997). There exists simple screening tools to identify other disorders such as anxiety and depression in patients with substance use

problems, however such tools are minimally employed (Mattick, Oliphant, Bell, & Hall, 1996). It is especially important for professionals to be able to recognize and treat other comorbid mental disorders in individuals with substance abuse disorders for the following reason. Although some problems may remit with abstinence, some problems are known to persist and even worsen when there is a cessation of substance use (Miller & Brown, 1997). Thus, staff who treat clients with substance abuse disorders need to have the proper training and education.

## Rational for an Integrated System

In general, patients with comorbid substance abuse and other mental disorders are better treated in integrated settings, where both disorders can be treated simultaneously (Drake, Bartels, Teague, Noordsy, & Clark, 1993). Studies have found that "abstinent schizophrenic patients with a history of substance disorder are found to have treatment service use patterns similar to those of patients who never abused drugs, which is significantly lower than the actively substance-using patient. Also, they have fewer schizophrenic symptoms, which suggests that they may be less ill when not using addictive drugs. These findings stress the importance of addiction treatment to induce remission of addictive disorders in the chronic mentally ill" (Miller, Swift, & Gold, 1998, p. 688). "Ping-pong therapy" is an expression that was coined to indicate that when there is limited integration, the patient tends to be bounced back and forth between both treatment sectors (Ridgely, Goldman, & Willenbring, 1990). This causes a drain on the limited funds of treatment centres and moreover may result in less effective treatment.

Although professionals in mental health treatment centres have considerable expertise and training in evaluating and treating psychiatric patients, they have little expertise in treating addicted patients (Minkoff, 1997). It follows that staff in general mental health treatment centres

may likely be using an outdated disease model to understand the causes of substance abuse. Ongoing addictions training and education needs to be provided to all staff in these centres.

## Lack of Adequate Addictions Education and Training

There are problems with the current status of addictions training. This may partially explain the lack of education about general mental health conditions. There are few psychologists who declare addictions to be their specialty or subspecialty. In 1993, out of the 68,000 psychologists listed in the American Psychological Association (APA) directory, only 3 % stated addictions to be their primary or secondary specialty (APA Research Office, 1996). Although there has been an effort to provide more education about substance abuse in graduate program curriculum, there is still a critical shortage of courses in this area. In 1994, a survey was conducted with 82 PhD programs in clinical psychology and although it was found that 38 % of the schools offered at least one course on alcoholism, 95 % of the courses offered were electives (Chiert, Gold, & Taylor). Surely a re-evaluation of educational programs is required to better serve the needs of society.

Some might propose that the minimal importance given to addictions training in graduate school is due to the faculty members' lack of interest in this field (Carey, Bradizza, Stasiewicz, & Maisto, 1999). However, specific studies have disputed this theory and many faculty members in relevant departments do demonstrate an interest in addictions. One study found that 41 % of 115 APA-accredited clinical psychology programs had faculty with an interest in addictions (Sayette & Mayne, 1990). There have been similar findings in other studies, where 60 % and 73 % of graduate programs have at least one faculty member with an interest in addictions (Lubin, Brady, Woodward, & Thomas, 1986; Chiert et al., 1994). Rather, it seems that poor addictions education is related to the lack of training in the form of practicum

placements, and classroom teaching. One study found that only 8.1 % of clinical psychology graduate students had practicum/internship placements in institutions that deal principally with addictions (Chiert et al., 1994). As Miller and Brown (1997) reason, substance abuse needs to be pulled into the mainstream of psychological expertise. Regretfully, at this point in time there is a lack of proper addictions education in graduate programs.

There is also a shortage of psychiatrists who specialize in addiction. Medical residents receive minimal substance use education. Most psychiatric training programs do not include addictions work. For the programs that do include addictions training, the time residents spend in addictions settings is a small "fraction of the total resident training" ("1 to 2 months out of 48 months") (Miller & Chappel, 1991, p. 204). This is an unfortunate finding, especially considering the fact that over 50 % of psychiatric patients have a dual diagnosis of an alcohol or drug use disorder (Miller & Chappel, 1991).

One way to remedy the problem is to increase the content of addictions research at educational conferences and modify the medical school curriculum. For example, one study found that a full-day educational conference was able to significantly alter psychiatry residents' perceptions about addictions. After such a conference, there was a quantifiable decrease in the medical residents perception that addiction is a character problem as opposed to a medical condition. Furthermore, medical residents were more likely to believe that patients could be motivated to be treated (Karam-Hage, Nerenberg, & Brower, 2001). A survey was conducted with medical residents who had participated in a specialized addictions training program at the Addictions Research Foundation in Toronto from 1981 to 1991 (Sobell, Sdao-Jarvie, Frecker, Brown, & Cleland, 1997). Over half of the residents were found to be working in addictions and three quarters of those not working in addictions were still applying elements of what they had

learnt to their current work. Thus, better treatment may be possible with modifications to the medical education system.

Nurses also have an important role to play in substance abuse treatment. Unfortunately, a substantial number of nurses are inadequately prepared to work with a substance abusing clientele due to a lack of training in this domain. A study conducted by the American Nurses Association found that only 23 % of respondents to a survey saw their undergraduate or graduate courses as the root of their knowledge about addictions (Heinemann & Hoffman, 1989). Thus, as Karen Allen states in Current Moral Issues that Impede the Caregiving Process of Substance Abuse/Addictions Nurses, "this lack of a formal mechanism for preparing nurses working in the area of substance abuse/addictions has left many treatment programs with a nursing staff that feels confused and inadequate in handling the comprehensive role that faces them" (p. 301). As well, nurses are ill prepared to deal with patients who have concurrent diagnoses. They have not been properly educated about the comorbid disorders that accompany substance use disorders in order to appropriately treat their patients.

## Factors Affecting Disease Model Beliefs

### "Recovery" Status Amongst Treatment Staff

It is an undeniable fact that professional and paraprofessional staff, who are themselves "recovering" from substance abuse, are a common presence in treatment centres. Some could argue that this practice is beneficial for patients because staff may be more understanding and sensitive to their clients needs. However, the majority of studies that focus on therapist treatment attitudes have ignored the therapists' own drinking or drug use history (McGovern & Armstrong, 1987). There has also been concern that "recovering" staff members may be narrow-minded and rigid in their treatment approach (Humphreys, Noke, & Moos, 1996). Two early

studies support this theory. In one study it was found that "recovering" therapists have more difficulty expressing non-possessive warmth and retaining clients in treatment than non-recovering therapists (Manohar, 1973). A second study found that "recovering" therapists have less education, are not as keen on consulting with their colleagues, and are less accepting of other staff members who are not in recovery (McGovern & Armstrong, 1987). Clearly this is an area in the addictions field that requires more up to date research.

More recently, a study found that therapists with a personal history of substance abuse were significantly more likely to adopt a disease model perspective (Moyers & Miller, 1993). While this is not a problem in itself, there is concern that "recovering" therapists may aggressively impose this model on clients who do not adhere to this approach (Noordsy, Schwab, Fox, & Drake, 1994). As well, one study found that "recovering" addiction therapists "endorse more moralistic and negative characterological views" (Moyers & Miller, 1993, p. 243). In other words, therapists who are "recovering" from substance abuse are more likely to "endorse a moral model that believes that alcoholics a) are liars that cannot be trusted, b) cannot make good decisions for themselves, c) have personality deficits that predate drinking, d) have special spiritual deficits, and e) need strong confrontation" (Moyers & Miller, 1993, p. 243). The moral model predates the disease model. However, tenets of the moral model are still integrated in the disease model used today.

As well, it has been found that therapists who endorse a disease model of addiction have more of a tendency to focus on treatment goals they have decided on rather than those goals initiated by the client (Moyers & Miller, 1993). Therapists who embrace a more psychosocial model of addiction are more inclined to provide follow-up to their patients by calling them or sending a letter once treatment has stopped (Moyers & Miller, 1993). Furthermore, those

therapists who endorse a disease model "are more likely to impose instead of negotiate treatment goals in general and are unwilling to consider a goal of controlled drinking" (Moyers & Miller, 1993, p. 243). This is especially problematic given the findings that clients in substance abuse treatment centres prefer goal options (Foy & Rychtarik, 1987; Sobell, Sobell, Bogardis, & Leo, 1989). It has been found that less rigid goal setting may be more effective even when the therapist wants the patient to ultimately achieve abstinence (Miller & Page, 1991).

Education

It is also interesting to note that staff members with a higher education are less likely to adopt disease model beliefs and more likely to adopt a psychosocial or eclectic approach (Humphreys, Noke, & Moos, 1996). Another study found that addiction counsellors with graduate level training are more capable of abstract thinking and "tender mindedness" than those counsellors with less advanced education (Shipko & Stout, 1992). Thus, it seems that education supplies staff with more of a preference for hypothesis testing and rational, scientific decision-making.

A survey of staff in specialized addiction treatment centres in Ontario was conducted and the results were encouraging in terms of academic training and qualifications. "Across all agencies 80 % of staff had some sort of post-secondary academic qualification and the majority reported taking professional development courses in the previous 12 months" (Ogborne, Braun, & Schmidt, 2001, p. 1821). As well, the survey found that a high number of workers were interested in obtaining addiction certification. However, one disappointing finding was that only 20 % of all "respondents were certified either as addiction counsellors or as other types of human service providers" (Ogborne, Braun, & Schmidt, 2001, p. 1831). Furthermore, the authors state that "many of Ontario's residential addiction services were started by "recovered" alcoholics,

and continue to employ recovered alcoholics and to promote the 12-step model of "recovery" developed by Alcoholics Anonymous" (Ogborne, Braun, & Schmidt, 2001, p. 1833). "Although some of these recovered employees are also highly academically qualified, many are not" (Ogborne, Braun, & Schmidt, 2001, p. 1833). Thus, specific training in the field of addictions is lacking. More encouragement of staff to get further training is required to improve the quality of treatment provided.

Age

Age has also been shown to be an influential factor in whether or not the disease model of addiction is adopted. "Older staff endorse the disease model more strongly than younger staff, which may reflect some shift away from this model in training or zeitgeist such that younger staff are being exposed more to alternative viewpoints" (Humphreys, Noke, & Moos, 1996, p. 77). However, this finding warrants further study.

## Treatment Approaches

### Introduction to the Cognitive Behavioural Approach

A wide variety of psychosocial treatments have been researched and found to be effective in reducing substance use and bringing about positive changes in family, social, and employment domains (McLellan, Alterman, Cacciola, Metzger, & O'Brien, 1992). Such treatments include social skills training, behavioural marital therapy, stress management training, relapse prevention, and brief motivational counselling (Finney & Moos, 2002). These interventions fall into the broad category of cognitive behavioural (CB) treatment.

The CB perspective views substance use disorders as developing from a multitude of factors. The interplay between factors occurs in a dynamic and changing manner, depending on each person's unique personality and environmental influences. Often, substance use begins if

drugs are readily accessible and if the peer group reinforces substance use behaviour. The subsequent physiological response achieved through drug intake will either reinforce or punish the individual. Maintenance of substance use depends on peer group behaviour, social norms, parental attitudes, etc. (Rotgers, 2002).

Principles of learning, such as classical conditioning, operant conditioning, and social learning theory, form the bedrock of the CB approach. "Pavlov's work on classical conditioning demonstrated that a previously neutral stimulus could elicit a conditioned response after being paired repeatedly with an unconditioned stimulus" (Carroll, 1999, p. 251). In the 1960s, research conducted with chronic heroin users demonstrated the principles of classical conditioning. The heroin users were shown to experience conditioned withdrawal symptoms from merely observing drug paraphernalia (Wikler, 1971). Cue exposure treatment is based on classical conditioning principles. In this form of treatment patients are exposed to stimuli or cues that are associated with conditioned substance craving in an environment where access to the substance is blocked (Carroll, 1999).

In his research on operant conditioning Skinner discovered that actions that are positively reinforced are likely to be carried out more often. Findings from studies in the field of behavioural pharmacology support the theory that humans and animals are drawn to the reinforcing properties of substances (Aigner & Balster, 1978; Bigelow, Stitzer, & Liebson, 1984; Schuster & Johanson, 1974; Thompson & Pickens, 1971). Treatments guided by principles of operant conditioning include the Community Reinforcement Approach (CRA) that focuses on people's drinking behaviour, and their family and occupational-related problems (Azrin, 1976). As well, operant conditioning principles have been used with opiate addicts to reduce illicit

substance use by employing an incentive of take-home methadone to reward abstinence (Stitzer, Iguchi, Kidorf, & Bigelow, 1993).

Social learning theory addresses the role of modeling and cognitive mediation of substance use behaviour (Dodgen & Shea, 2000). Modeling involves observing another person's behaviour and then performing that behaviour given relevant reinforcement contingencies (Rotgers, 1996). A prominent risk factor for substance abuse is modeling of peer and family substance abuse behaviours. It is believed that individuals with addictive disorders often lack the skills (i.e., refusal skills, self-efficacy, assertiveness) that would help them overcome situations in which substance use is involved. Research on the development of substance use problems during adolescence due to peer modeling and influence supports the social learning perspective (Kandel & Faust, 1975; Kaplan & Johnson, 1992).

Ellis and Beck stressed the importance of a "person's thoughts and feelings as determinants of behaviour" (Carroll, 1999, p. 252). Ellis used a cognitive framework to understand the problem of substance abuse. Ellis' ABC model of emotion bears the following tenets. A) Events or situations confronted by an individual do not directly cause negative emotions. B) Rather, an individuals' interpretation of the meaning of such events propagates negative emotions. C) Thus, in order for a change in affect to actualize, an individual must identify and challenge irrational beliefs (Ellis, McInerney, DiGiuseppe, & Yeager, 1988). Thus, it is believed that individuals who abuse substances use drugs or alcohol as a way of coping with negative emotions.

Beck, the founder of cognitive theory, uses a similar approach to Ellis to explain the causes of substance abuse. He believes that irrational "core beliefs" about the world, and thoughts about what one needs in order to live a peaceful life, are rigidly supported by certain

individuals (Beck, Wright, Newman, & Liese, 1993). When individuals face conflict, such beliefs are activated and they trigger maladaptive coping responses. In addition to core beliefs, highly stereotyped "automatic" thoughts appear that activate urges or cravings for substances. Thus, an individual will want to use drugs or alcohol to block the negative emotions that spur from the automatic thoughts (Beck et al., 1993).

Marlatt is also widely known for his research on relapse prevention and how the CB model applies to the treatment of substance abuse. Relapse prevention concentrates on defining high-risk situations for relapse, developing and practicing strategies to cope with those situations, and self-monitoring. As well, the approach focuses on identifying and proactively dealing with cravings and thoughts about substance use (Marlatt, 1985). Marlatt views substance abuse and relapse as following a cognitive decision-making route. Thus, some decisions made by a substance abuser may appear to be irrelevant at the time but might end up being quite powerful and harmful. For example, a person who is abstaining drugs may drive out of his/her way to pass a street corner where drug pushers are often stationed (Marlatt, 1985).

The CB approach is based on the belief that substance abuse is a learned, maladaptive behaviour (Ouimette, Finney, & Moos, 1997). CB treatments focus on improving patients' sense of self-efficacy so as to prevent relapse in high-risk situations. As well, the CB approach seeks to decrease the perceived positive consequences of substance use and increase expectancies regarding the benefits of abstaining or reducing substance use (Finney, Moos, & Humphreys, 1999). Addiction therapists that are guided by a CB approach usually attempt to change patients distorted thinking patterns about abused substances and increase their coping skills (Ouimette, Finney, & Moos, 1997). Ultimately, the CB approach helps patients acknowledge their maladaptive thoughts and seeks to "teach them how to notice, catch, monitor, and interrupt the

cognitive-affective-behavioural chains and to produce more adaptive coping responses" (Meichenbaum, 1995, p. 147)

Introduction to the Disease Model and the 12-step Approach

The 12-step approach is also recognized as an effective treatment for individuals with substance abuse disorders. The 12-step approach began as a self-help treatment technique and its philosophy has become embedded in many formal treatment program orientations. The approach integrates aspects of Alcoholics-Narcotics-Cocaine Anonymous with the disease model of addiction (Ouimette, Finney, & Moos, 1997). In the United States, the disease model is the predominant paradigm through which chemical and alcohol addiction is understood (Humphreys, Greenbaum, Noke, & Finney, 1996). For example, alcoholism is officially declared to be a disease by the American Medical Association, the American Psychiatric Association, the National Association of Social Workers, the World Health Organization, the American Public Health Association, and the National Council on Alcoholism (Brower, Blow, & Beresford, 1989).

From the disease model perspective, substance abusers have an underlying biological or psychological predisposition. This vulnerability interferes with their ability to control the intake of substances. Total abstinence is seen as the ultimate goal and the only solution. Thus, controlled drinking is not considered to be a viable option. Also, the importance of relying on external support or a "higher power" is stressed in the recovery process (Laudet, 2003). Furthermore, within this framework, affected individuals are encouraged to become involved in 12-step treatment and attend group meetings, to get a sponsor and to work "the steps".

The 12 steps are used as guidelines to follow on the road to "recovery". "Recovery" is attained through adherence to AA guidelines, reciprocal support and guidance, and spirituality (Dodgen & Shea, 2000).

Self-help groups often use confrontation to break denial defenses. However, research has shown that challenge and confrontation are tactics that are largely ineffective in the treatment of substance use disorders (Miller & Rollnick, 2002). As well, confrontation tactics may be particularly harmful with clients who have low self-esteem (Annis & Chan, 1983).

Twelve-step groups are guided by the motto "I recognize that I am powerless". This can have a positive influence in that it may support a person with substance use problems to seek professional help. However, the concept of a total loss of responsibility may be simplistic. Individuals who abuse drugs and alcohol do have a level of control, and those internal resources must be examined to facilitate treatment (Beck, Wright, Newman, & Liese, 1993). As well, 12-step groups may be counterproductive with certain populations. There have been problems in the application of AA principles with "early problem drinkers, individuals having serious psychopathologies in addition to alcohol problems, the young and various other populations" (Sobell & Sobell, 1979, p. 321). In fact, it has been stated that the "popular attitude of suspicion" towards individuals who have had alcohol problems in the past but have recovered and engage in controlled drinking is due to the "pervasive influence of the AA. ideology" (Sobell & Sobell, 1979, p. 322). Individuals with schizophrenia may have more difficulty admitting to errors or seeing the interconnection between their symptoms and behaviours. Also, they may be taking prescribed neuroleptics and other medications and this practice conflicts with 12-step motto of required abstinence (Bellack, Mueser, Wade, Sayers, & Morrison, 1992).

The disease model stresses the role of genetics and neurochemistry in the development of substance abuse disorders. Most research in this area stems from family studies of alcoholics. 25% of sons of alcoholics have been found to develop alcohol dependence or abuse (Collins & DeFiebre, 1990). As well, 33% of alcoholics have been found to have at least one parent who abuses or abused alcohol (Collins & DeFiebre, 1990). Twin studies have also pointed to the strong influence of genetics. Monozygotic twins have been found to have a higher concordance for alcoholism than dizygotic twins (Crabbe, McSwigan, & Belknap, 1985). As well, "recent neuropharmacological studies confirm neurochemical sites for drug actions by drugs of addiction, and mechanisms of addictions that are common to alcoholism and drug addiction" (Miller & Chappel, 1991, p. 197).

History of the Disease Model and the 12-step Approach

Although there are research findings that support the effectiveness of the 12-step or disease model approach there are many detractors. These critics state that the Disease model of substance abuse revokes the substance abuser's sense of personal responsibility and encourages the substance abuser to adopt a sick role (Roman & Trice, 1968). Ultimately, this approach corrodes the patients' development of effective coping skills (Marlatt & Gordon, 1985). The 12-step approach's spiritual emphasis is also a point of contention. The 12-step approach is built on the religious tenets of First Century Christianity, Dr. Jung's recommendations to an early AA member, and the observations of Dr. Silkworth, another psychiatrist (Miller & Chappel, 1991). Thus, the basis of the framework is neither scientific nor rational (Miller & Chappel, 1991). Furthermore, AA's concepts of surrender and powerlessness are also considered to be problematic as they contradict western values of self-reliance (Davis & Jansen, 1998). In a small

study, 19 subjects dropped out of AA due to their dislike of the spiritual emphasis and unease with concepts like surrender and powerlessness (Klaw & Humphreys, 2000).

It is also important to realize that individuals with substance use problems may be quite reluctant to enter a residential treatment centre or attend 12-step group meetings. Many times, "fears of public exposure and being labelled an "addict" or "alcoholic" are insurmountable concerns" (Washton, 2002, p. 3). As well, individuals are often unaware that their substance use is problematic. Thus, it may often be more pragmatic for a mental health professional to use a more flexible CB treatment strategy and individually treat a patient in office-based therapy (Washton, 2002). Furthermore, there is growing evidence for the utility of brief intervention in outpatient drug and alcohol treatment centres (Sobell, Sobell, Brown, & Cleland, 1995).

Research Findings: Cognitive Behavioural "vs." 12-step Treatment

There are certain studies that have found correlational evidence for the superiority in effectiveness of AA when compared with CB treatment of substance abuse. However, overall, there is still a paucity of information available about the effectiveness of 12-step treatments when compared with other types of interventions. A naturalistic study was conducted with over 3,000 inpatients participating in traditional 12-step, CB, or mixed 12-step and CB treatment. The outcome was such that patients in 12-step programs were more likely than CB patients to abstain from drugs and alcohol in the 3 months prior to a follow-up point (Finney, & Moos, 2002). Another study, entitled Project MATCH (Project MATCH Research Group, 1997), compared the efficacy of 12-step treatment to that of CB treatment and motivational enhancement therapy. Patients that had participated in the 12-step treatment condition were found to be functioning better than patients in the other treatment conditions at a 12-month follow-up point in terms of several secondary outcome variables (Finney & Moos, 2002).

Another study was conducted with cocaine-dependent outpatients and the results differed from that of Project MATCH. This study compared the efficacy of therapy groups run that use a 12-step approach and a relapse prevention (thus, a more psychosocial perspective) approach. Individuals in both groups were found to have reduced their drug and alcohol use. Moreover there were no differences in terms of marijuana and cocaine use after treatment. However, the principle difference between the two groups was that individuals in the 12-step therapy group showed significantly greater increases alcohol intake from 12 weeks to the 6-month follow-up than the relapse prevention patients (Wells, Peterson, Gainey, Hawkins, & Catalano, 1994). This conclusion is important to follow with further research.

One important study demonstrated the superior efficacy of CB treatment of cocaine abuse when compared with a 12-step approach. The findings were such that patients involved in CB therapy were significantly more likely to continue to be abstinent from cocaine than patients in the 12-step group (Maude-Griffin, Hohenstein, Humfleet, Reilly, Tusel, & Hall, 1998). Another interesting finding was that amongst African American study participants, those who were more religious were more likely to have four weeks of continuous abstinence in the 12-step group compared to those who were not religious. Furthermore, this relationship did not follow for African Americans in the CB therapy group (Maude-Griffin, Hohenstein, Humfleet, Reilly, Tusel, & Hall, 1998). As well, findings were such that patients with a diagnosis of major depressive disorder had better outcomes in the CB group than the 12-step group. Also, findings were such that patients with lower levels of abstract reasoning did better in the 12-step group than the CB group (Maude-Griffin, Hohenstein, Humfleet, Reilly, Tusel, & Hall, 1998).

A Harm-Reduction Perspective

Although most addiction treatment centres have tended to favour the disease model, there has been a shift in North American thinking towards adopting more of a harm-reduction approach to understanding addiction (Feldman, 1998). The harm reduction perspective values the integration of different treatment interventions that are empirically supported in terms of their effectiveness (Garfinkel & Dorian, 2000). Thus, the harm reduction approach can combine elements of both CB and disease models in a way that avoids the disadvantages of only endorsing one model (Brower, Blow, & Beresford, 1989).

Scientific research continues to support a multi-causal explanation for the etiology of drug and alcohol addiction. There are genetic, neurobiological and experiential causes that play a part in the development of mental disorders and addictions (Vaccarino, 1994). Thus, the harm-reduction perspective is especially important when considering the high level of comorbidity of addictions and other mental disorders.

There has been some evidence that CB intervention techniques can be successfully implemented in a treatment setting that uses a predominantly disease model approach to understand addiction. For example, one study found that social skills training, an empirically supported CB technique could become integrated in a disease model dual-diagnosis treatment program. The authors of the study state that "from the perspective of clinical implementation, using behaviour therapy to teach skills relevant to disease-model dual-diagnosis treatment was largely a success" and that "in the absence of formal assessment of social skills, preliminary evidence of success was apparent in cases in which group participants were able to apply what they had learned" (Van Horn, 2000, p. 200). However, more research in this area is warranted.

## Treatment Centres

### The Centre for Addiction and Mental Health (CAMH)

Since the 1990s, the province of Ontario has promoted the use of more comprehensive and integrated mental health and addiction treatment services for patients (Beal, 2003). In 1999, the Ontario Ministry of Health declared its new policy and health reform guidelines towards the following goal: "creating a system in which the consumer is at the centre; tailoring services to consumer needs, with a view to improving quality of life; linking and coordinating services so the consumer can move easily from one part of the system to another; and basing services on best practices" (Beal, 2003, p. 118). The Centre for Addiction and Mental Health (CAMH), formed in 1998, is a prime example of a model system of care that has incorporated policy and health principles. CAMH is the result of the integration of the Addiction Research Foundation, the Clarke Institute of Psychiatry, the Donwood Institute, and the Queen Street Mental Health Center. Located in Toronto, it is now the largest mental health and addictions centre in Canada. The new harm reduction model is at the forefront of CAMH's treatment orientation (Beal, 2003). CAMH's services are specifically oriented towards meeting the needs of patients with comorbid mental health and substance abuse disorders.

Although CAMH has only existed for 6 years it appears to be successful. The delivery of care has increased by 25 % and the establishment is meeting the needs of 21,000 clients per year (Beal, 2003). Furthermore, their research budget has doubled to 30 billion dollars per year. As well, CAMH has created a screening instrument for patients with comorbid substance use and other mental disorders to determine who needs additional unique treatment services. Nurses that work at CAMH are being trained and provided with educational workshops to enhance their knowledge of concurrent mental disorders (Beal, 2003). Other kinds of services are being

offered and developed as part of CAMH. Its philosophy and organizational structure are an excellent example of an integrated and comprehensive program that is specifically designed to maximize the care for patients with co-occurring substance use and mental health disorders.

Description of Mental Health and Addiction Treatment Centres in Thunder Bay, Ontario

There are several mental health treatment centres in the region of Thunder Bay, Ontario that treat individuals with primary or secondary substance abuse disorders. A brief description of these services will follow.

The Sister Margaret Smith Centre, part of St. Joseph's Care Group, provides services to both adults and youth with substance abuse problems. The centre offers residential, day treatment, and outpatient programs. The residential adolescent treatment program is the only one that exists in the province of Ontario and is targeted towards youth aged 13 to 18. Youth Services at the Sister Margaret Smith Centre is comprised of a team of youth workers and case managers with previous academic training in psychology and social work. As well, a recreational therapist, physician, native spiritual advisor and psychologist are part of the treatment team. The program's orientation is declared to be holistic, consisting of AA meetings, relapse prevention, spiritual counselling, alcohol and drug education, family support, etc. Adult services at The Margaret Smith Centre have a staff team comprised of counsellors with academic training in nursing, education, social work, and psychology. As well, the team includes program assistants, a recreational therapist, physician, spiritual advisor, and stress management specialist. Furthermore, certain staff members have specialized training with older populations (Adults 55+), women, methadone maintenance, opiate dependence and gambling. Elements of the program include CBT, 12-step meetings, spirituality, and stress management.

The Thunder Bay Regional Health Sciences Centre provides mental health services to individuals with serious or acute mental health disorders. There are inpatient and outpatient programs for individuals with mental health disorders who may also suffer from substance abuse problems. Members of the treatment team include psychiatrists, general practitioners, nurses, psychologists, social workers, occupational therapists, dieticians, recreational therapists and spiritual advisors. No treatment orientation is specified in the information brochure's summary about the centre's services.

The Northwestern Ontario Concurrent Disorders Program runs out of the Lakehead Psychiatric Hospital and is part of the St. Joseph's Care Group. This program is specifically tailored for individuals, 16 years of age and older, with comorbid substance abuse and other mental health disorders. The program uses an intensive outpatient format. The program is said to use biopsychosocial, cognitive behavioural, and harm reduction treatment orientations. Members of the treatment staff include nurses, social workers, psychologists, recreational therapists, and a psychiatrist. Other specialists that aid with the program's services are occupational therapists, dieticians and spiritual advisors. Among the services offered are methadone maintenance, pharmacotherapy, individual, and group therapy. Educational seminars about mental illness and addiction are also held.

The Lakehead Psychiatric Hospital also has a community mental health service program. This outpatient program employs professionals from a broad range of disciplines. It treats individuals with serious mental illness who may also have substance abuse problems.

The Community Support Program runs out of the Lakehead Psychiatric Hospital. It is an oupatient service that includes a team of staff from the disciplines of psychiatry, family

medicine, nursing, occupational therapy, therapeutic recreation, and vocational counselling. The team members work with patients who have severe psychiatric illnesses.

The Thunder Bay Assertive Community Treatment (ACT) team is located at the Lakehead Psychiatric Hospital. The ACT team is composed of mental health professionals with training in recreation, vocational rehabilitation, occupational therapy, social work, psychology, nursing, and psychiatry. Their services also target individuals with severe and persistent mental illness.

There are also two Assertive Community Treatment (ACT) teams that run out of the Thunder Bay Regional Health Sciences Centre. One is called the ACTION team and one is called the PATH team. Their support teams include staff members from a broad variety of disciplines.

The Lakehead Regional Family Centre runs an outpatient addictions program called New Experiences. It serves youth aged 12 to 17 years of age. The program's orientation integrates psychosocial, cognitive behavioural and harm reduction models. It also includes a Native cultural component and offers weekly Native healing circles. The program is targeted towards youth with comorbid substance use and mental health disorders.

Family Services Thunder Bay (FSTB) is a non-profit counselling, advocacy, education and support centre. As part of their services, they provide alcohol and other drugs assessments as well as provide individual, couple and family counselling. Staff members at FSTB have training in psychology, nursing, social work, etc.

## Summary

Comorbidity of psychological and substance use disorders is a common phenomenon. Individuals with dual diagnoses of substance abuse and other psychological disorders are better

treated in integrated health care systems that are designed to accommodate all of their disorders. Studies have found that "integrated treatment can lower hospitalization costs, reduce or eliminate substance use, reduce psychiatric symptoms, and lead to other improvements in quality of life" (Miller, Swift, & Gold, 1998, p. 688). However, a separation of addiction and mental health treatment services continues to exist in our health care system. Furthermore, graduate training and education in addictions is not meeting adequate standards in several disciplines and an outdated disease model of addiction still seems to be widely supported. A 12-step treatment approach, based on the disease model, still tends to be endorsed as a primary substance abuse treatment method despite the proven efficacy of cognitive behavioural and harm-reduction approaches.

## Aims of the Present Study

While some of the treatment programs staff state specific treatment model(s) used, there is no empirical support for whether or not these models are actually espoused by the staff that work at these centres. Some centres claim to follow several different models, and use them in an integrated way. It would be interesting to see if this is actually the case or if staff members rigidly adopt one treatment model conceptualization. If a staff member has beliefs about addiction that fall into the disease model but the centre he/she works in uses a predominantly cognitive behavioural model this might cause a strain on the quality of services provided. As well, the staff beliefs, if rigorously and strictly adhered to, may conflict with other staff members' mindsets as they most likely come from diverse backgrounds. Consequently, a clash in beliefs may confound the work of the team and the quality of the services may be affected.

Another area of interest relates to whether or not "recovery" status is linked with the kind of model one espouses. Research provides us with different findings on the issue. Some studies

have found that those therapists who are themselves "recovering" from substance use tend to promote a disease model approach (Bennett & Kelley, 1987; Ferneau & Paine, 1972; Moyers & Miller, 1993). However, more recently, a study found that those therapists who were in "recovery" had more eclectic beliefs about substance abuse than other staff members who were not in "recovery" (Humphreys et al., 1996). This is a research area that the present study will investigate.

Another topic that the present study will investigate is whether or not age affects the kind of model, or kind of beliefs about substance abuse that staff members hold. It can be hypothesized that older staff members may lean more towards espousing a disease model of addiction, whereas younger staff members may be more inclined towards endorsing a psychosocial, eclectic or cognitive behavioural approach. Some research that has been previously mentioned supports this hypothesis.

As well, education level and educational background is likely to have an effect on what model one uses at the different mental health treatment centres in Thunder Bay. As previously mentioned, one study found that an eclectic belief system concerning substance use, is endorsed more by individuals with higher levels of education and more experience treating substance abuse (Humphreys, Greenbaum, Noke, & Finney, 1996). It has been shown that "as clinicians gain more educational and practical experience, they become increasingly likely to disagree with doctrinaire statements from any therapeutic school" (Humphreys, Greenbaum, Noke & Finney, 1996, p. 43). Thus, it is important to see if these results are replicated in the present study.

## General Expectations

It is hypothesized that staff members at the Thunder Bay Regional Health Sciences Centre and the Lakehead Psychiatric Hospital's Community Mental Health Services will endorse

more disease model beliefs about addiction than staff members at the other treatment centres. Part of this hypothesis rests in the fact that there exists a high number of medical staff who work at these centres and they may be more likely to endorse disease model beliefs.

Other predictions are as follows. It is hypothesized that staff members that are "recovering" from substance abuse will have more disease model beliefs than other non-"recovering" staff members. As well, it is believed that older and less educated staff will endorse the disease model more strongly than younger and more highly educated staff. Finally, it is hypothesized that psychologists and social workers will adopt more of a psychosocial or CB approach to understanding addiction. Whereas, other staff members (i.e., nurses, counsellors, occupational, psychiatrists) will have beliefs about substance abuse that fall into a disease model paradigm.

## Method

### Participants

Mental health and addictions treatment staff members were recruited from various addiction and mental health treatment centres in Thunder Bay, Ontario.

### Materials

The study employed the Short Understanding of Substance Abuse Scale (SUSS) (see Appendix A) to measure the different models used by staff at the various treatment centres in Thunder Bay. The SUSS is a modified version of the Understanding of Alcoholism Scale (UAS) that was created by Moyers and Miller in 1993. "To ensure content validity, those authors drew UAS items from therapist statements about alcoholism made during training and supervision as well as from key points differentiating the dominant conceptual models of alcoholism" (Humphreys, Greenbaum, Noke, & Finney, 1996, p. 38). The UAS is a 41-item questionnaire

that assesses beliefs about the etiology and effective treatment of substance abuse (Moyers & Miller, 1993). It assesses disease model beliefs, psychosocial model beliefs and eclectic beliefs (termed Heterogeneity of Alcoholic Clients in their measure) by using three subscales. A limitation that the researchers acknowledged in the development of the UAS was the low response rate (20 %) (Humphreys, Greenbaum, Noke, & Finney, 1996). Thus, the researchers point out that their sample may not provide an adequate representation of the population of substance abuse treatment providers. Another one of their study's shortfalls was that they only included counsellors and other types of addiction treatment specialists were excluded.

The SUSS is an improved version of the UAS for a number of reasons. The SUSS uses a reduced number of items as it is only composed of 19 items. This shortens the administration time, provides easier scoring and increases the likelihood of achieving a higher response rate. Furthermore, the SUSS "attempts to assess beliefs about substance abuse in general rather than only about alcoholism" (Humphreys, Greenbaum, Noke, & Finney, 1996, p. 39). As well, Moyers and Miller only used counsellors when they tested their measure. Therefore, when testing the statistical efficacy of the recently developed SUSS, a broader sample of substance abuse treatment staff members was used (Humphreys, Greenbaum, Noke, & Finney, 1996). The SUSS retained the three subscales but renamed the Client Heterogeneity Orientation subscale the Eclectic Orientation subscale.

The validity and reliability of the SUSS have been supported by research data. The disease model subscale contains 7 items (alpha = 0.78, range 0-28) and is based on the belief that substance abuse is a chronic condition that can be treated using an abstinence framework. An exam of an item from the disease model subscale is "once a person is an alcoholic or addict, he or she will always be an alcoholic or an addict". The psychosocial model subscale contains 5

items (alpha = 0.75, range 0 = 20) and is based on the belief that substance abuse is a learned behaviour. An example of an item from the psychosocial model subscale is "a person can develop alcoholism or drug addiction because of underlying psychological problems". The eclectic orientation subscale contains 7 items (alpha = 0.61, range = 0-28) and is based on the belief that individuals that abuse substances are a diverse population that need to be treated with treatments that are specific to their needs. An example of an item from the eclectic model subscale is "there are "problem drinkers" who have significant problems with alcohol, but who are not alcoholic". The internal consistency, factor structure, convergent and, discriminant validity of the subscales has been supported.

The Personal Details Questionnaire (see Appendix B) was developed to gather other pertinent information about staff members in mental health and substance abuse treatment centres. The questionnaire contains 14 items and the main information sought relates to education level, profession, mental health and addictions experience, and recovery status. As well, a few demographic questions are included in the questionnaire.

Design and Procedure

The SUSS was handed out in hard copy to staff at mental health and addiction treatment centres in Thunder Bay. As well, a consent form was included in the package. A brief explanation of the project was given before the questionnaires were handed out. At these staff meetings, questions were answered and concerns were addressed by the primary researcher.

In addition to completing the SUSS and consent form, participants were also asked to answer some additional questions (see Appendix B). These questions were posed to gather some other relevant information tied to the thesis objective. The questionnaires were enclosed in addressed, business reply envelopes.

Ethical Considerations

Study participants were informed, at all stages of the project, about the nature of the research and any risks and/or benefits of participating (see Appendix C). Participants were made aware that their participation was voluntary and that specific personal information was to be securely stored and was to remain confidential.

Data Analysis

All data collected from the completed questionnaires was coded and entered into a database using the computer version 11.0 of the Statistical Package for the Social Sciences (SPSS, [SPSS, 2001]). All statistical analyses were conducted using SPSS.

Data from the entire sample was analyzed together to describe the characteristics of the population. Variables included demographic information, recovery status, field, work site, job category, years working in profession, years experience in addictions, years experience in mental health, type of mental health training and type of addictions training. As well means and standard deviations were determined for the three SUSS addiction subscales.

Chi-Square analyses were conducted to see whether or not a relationship exists between recovery status and the predictor variables. Further univariate analyses were done to determine whether a relationship exists between the predominant model and predictor variables. As well, the relationship between endorsement of addiction model and job elements was examined. Chi-Square analyses were also conducted to assess whether or not a relationship exists between the work sites and predictor variables.

A t-test for independent samples was conducted to see whether a relationship exists between "recovery" status and subscale scores, and between "recovery" status and field.

Analyses of Variances (ANOVAS) were performed to assess the relationships between the addiction models' subscale scores and the predictor variables of age, gender, length of time working in current job, number of years working in addictions, number of years working in mental health and level of mental health or addictions training.

Multiple regression analysis techniques were used to determine which predictor variables contributed to the variance explained in each of the Disease and Eclectic Subscales, and in the "Predominent Mode", work site location and recovery history.

## Results

### Response Rate

A total of 255 questionnaires were distributed to staff members at addiction and mental health treatment centres in Thunder Bay, Ontario. Of these, 115 were completed and returned. This represents an overall response rate of 45 %. It is important to note, however, that not all respondents answered every question; thus response rates vary by the specific question.

### Descriptive Statistics – Sample Characteristics

The final sample for the analysis was comprised of 115 respondents for whom data was available. Frequency distributions and percentages for sample demographics are shown in Table 1.

### Descriptive Statistics – Professional Experience of the Sample

Respondents were asked several questions about their professional training and experience in the field of addictions and mental health. Table 2 displays the frequencies and percentages with respect to these items, which includes: years and level of experience, type of position held, work location and professional training.

*Table 1*

Descriptive Statistics - Demographics

(N = 115)

| Variable | Frequency | % |
|---|---|---|
| Gender | | |
| Male | 18 | 15.7 |
| Female | 97 | 84.3 |
| Age | | |
| Youngest to 35 | 34 | 29.6 |
| 36 – 45 | 36 | 31.3 |
| 46 and Older | 45 | 39.1 |
| "Recovery" Status* | | |
| Not in "Recovery" | 92 | 84.4 |
| In "Recovery" | 17 | 15.6 |

*6 respondents did not answer this question (N = 109)

In addition to the previously mentioned data, the following open-ended survey responses reflect the wealth of mental health training and educational experience obtained by staff: "worked within the LPH (Lakehead Psychiatric Hospital)"; "services, workshops, readings"; "Masters degree" and "Clinical Psychology Ph.D."; "CPMHN(C) (Certified in Psychiatric and Mental Health Nursing in Canada)"; "EMDR Level 1 (eye movement desensitization and reprocessing)"; "numerous workshops and training sessions"; "vocational rehabilitation"; "various courses, B.A. in Psychology"; : "Masters candidate in Clinical Psychology"; "some university courses", "certificate in couple and family therapy"; "certified as a counselling traumatologist"; "training in PTSD (Post Traumatic Stress Disorder), personality disorders, trauma/counselling"; "various workshops and seminars"; "externships, marriage and family therapy"; and "experience in in-service therapy".

The following comments reflect the experience reflected in other addictions training or education obtained by staff: "core training for addictions workers"; "withdrawal management"; "some in-services at work as well as hands on experience with clients with mental health and addiction problems"; "Treatment of Drugs and Alcohol Problems" and "Behaviour and Drugs" (Lakehead University courses); "Substance Abuse Professional", "in-services re: methadone, drug addiction, alcoholism"; "various courses"; "in-house training"; "some university courses"; "training in the use of the standardized tools, university courses, workshops"; "one day methadone workshop, online courses, fundamentals of Addictions (CAMH)"; "on the job training at LPH"; "MSW, in-services, continuing education"; and "addictions course at Confederation College".

Nearly one-half (47 %) of staff members ($\underline{n} = 54$) reported that they obtained a college or undergraduate degree, 26 (22.6 %) report having obtained a certificate or diploma, and 32

(27.8 %) report having received a masters, doctoral, medical or other degree. About three-quarters (72.2 %) respondents (n = 83) reported they had the most experience working with an adult client population, 16 (13.9 %) staff members had the most experience working with a youth population, and 16 (13.9 %) respondents had an equal amount of experience working with both populations. Nearly two-thirds (66.1%) of respondents (n = 76) worked with adults, 15 (13 %) respondents worked with youth, and 24 (20.9 %) respondents worked with a mixed age population.

Seventy- two (62.6 %) respondents endorsed the psychosocial model as the predominant model that guides their beliefs about addiction. Another 32 (27.8 %) respondents endorsed the eclectic model as their predominant model, and 11 (9.6 %) respondents endorsed the disease model as their predominant model.

Descriptive Statistics – The Three Subscales (Dependent Variables)

Means and standard deviations of the three SUSS subscales representing the dependent variables (psychosocial, eclectic, and disease) are shown in Table 3.

Bi-Variate Analyses – Relationship Between Recovery Status and Predictor Variables

The first set of bi-variate analyses examined the relationship between "recovery" status (i.e., whether or not there is a history of drug and/or alcohol problems) and the following categorical predictor variables: age category, education, gender, work site location, professional field and level of training. Results indicated that staff with a history of problems with drugs or alcohol did not differ significantly from those without such a history based on categorical age differences. Similarly, there was no significant association between education levels achieved by staff, and a history of drug or alcohol problems.

*Table 2*

Descriptive Statistics - Professional Experience

(N = 115)

| Variable | Frequency | % |
|---|---|---|
| Field | | |
| Mental Health | 65 | 56.5 |
| Addictions | 47 | 40.9 |
| Undefined | 3 | 2.6 |
| Work Site | | |
| Sister Margaret Smith Centre | 39 | 33.9 |
| Lakehead Psychiatric Hospital | 27 | 23.5 |
| Thunder Bay Regional HSC | 23 | 20.0 |
| FS Thunder Bay/Lakehead RFC | 22 | 19.1 |
| Job Category* | | |
| Medical Staff | 33 | 28.7 |
| Psychology/Social Work | 40 | 34.8 |
| Counsellors | 37 | 32.2 |
| Years Working in Profession | | |
| Less than one year | 11 | 9.6 |
| 1 – 5 years | 29 | 25.2 |
| 6 - 10 years | 14 | 12.2 |
| More than 10 Years | 61 | 53.0 |
| Years Experience in Addictions | | |
| None | 39 | 33.9 |
| Less than one year | 14 | 12.2 |
| 1 – 5 years | 29 | 25.2 |
| 6 - 10 years | 10 | 8.7 |
| More than 10 Years | 23 | 20.0. |
| Years Experience in Mental Health | | |
| None | 14 | 12.2 |
| Less than one year | 8 | 7.0 |
| 1 – 5 years | 28 | 24.3 |
| 6 - 10 years | 17 | 14.8 |
| More than 10 Years | 48 | 41.7 |
| Type of Mental Health Training** | | |
| No formal training | 40 | 34.8 |
| Certified Counsellor | 41 | 35.7 |

| | | |
|---|---|---|
| Other Mental Health Training | 34 | 29.6 |
| Type of Addictions Training*** | | |
| No formal training | 67 | 58.3 |
| Certified Counsellor | 13 | 11.3 |
| Other Mental Health Training | 35 | 30.4 |

*Medical staff included: nurses, nursing students, psychiatrists, and registered dieticians; Psychology/Social Work included: social work students, social service students, psychologists, and psychometrists; Counsellors included: occupational therapists, recreational therapists, addictions crisis workers, child/youth workers, program assistants, case managers, mental health clinicians and vocational rehabilitation officers.

**Have certificate or diploma in mental health discipline, are a member of a registered college of health professionals, or are a certified counsellor in addition to having a certificate or diploma in a mental health discipline or have a certificate or diploma plus other mental health training or education

***Have certificate or diploma in addiction studies, are a member of a registered college of mental health professionals, are a certified drug or alcohol counsellor plus have other addictions training or education.

*Table 3*

Means and Standard Deviations of the Three SUSS Subscales

| Subscale | Mean | SD |
|---|---|---|
| Psychosocial Model | 13.40 | 2.84 |
| Eclectic Model | 15.53 | 4.31 |
| Disease Model | 11.34 | 6.63 |

Reflecting population base rates of substance abuse among men and women, staff members with a history of drug or alcohol problems were more likely than those without a history of such problems to be male than female (43.8% vs. 10.8%, $\chi^2$ (1, $\underline{N}$ = 109) = 8.92, $\underline{p}$ < .05). Staff who had a history of drug or alcohol problems were more likely than those without a history of such problems to be working at the Sister Margaret Smith Centre (75.0%) than at the Lakehead Psychiatric Hospital (25.0%) or any of the other three work sites $\chi^2$ (3, $\underline{N}$ = 105) = 16.02, $\underline{p}$ < .01).

In addition, staff members with a history of drug or alcohol problems were more likely than those without a history of such problems to hold the job title of "Counsellor" (30.3%) than either "Medical Staff" (10.3%) or "Psychology/Social Work" (6.3%), $\chi^2$ (3, $\underline{N}$ = 109) = 8.46, $\underline{p}$ < .05). There was also a significant association between level of addictions training (recoded as certification, other training, or none) and a history of problems with drugs or alcohol $\chi^2$ (2, $\underline{N}$ = 109) = 7.17, $\underline{p}$ < .05). Those who held some type of certification were more likely than those with either "other" training or "no formal" training to have experienced a history of problems with alcohol or drugs (41.7% for those with certification compared to 14.7% and 11.1%, respectively for the other two groups).

Finally, staff members with a history of drug or alcohol problems were more likely to be working in the addictions field than in the mental health field (26.2% vs. 7.8%, $\chi^2$ (1, $\underline{N}$ = 106) = 5.32, $\underline{p}$ < .05).

Bi-Variate Analyses – Relationship Between Predominant Model and Predictor Variables

The next set of bi-variate analyses examined the relationship between the predominant model endorsed by treatment staff and the following predictor variables: age category, gender, job title, work site location, length of time working in current job, professional field, level of

training, education, number of years working in addictions and mental health and population with which they currently work. With the exceptions of job title and current population with which staff work, no significant associations were found between the endorsement of any one of the three models and the remaining predictor variables.

However, the predominant addiction model endorsed by treatment staff did differ significantly by job title, $\chi^2$ (4, N = 110) = 19.54, p < .01) and also by the client population with which they have the most experience working, $\chi^2$ (4, N = 115) = 9.83, p < .05. Results comparing the percentages of staff endorsing the respective models are shown in Table 4.

From Table 4, it is clear that the "Psychosocial" model was endorsed by more medical staff (75.8%) and by more counsellors (70.3%) than either of the other two models. More Psychology/Social Work staff, on the other hand, endorsed the "Eclectic" model than either of the other two models. They preferred the "Eclectic" model only slightly more than they did the "Psychosocial" model (52.5% vs. 47.5%). Those staff working with adults endorsed the "Psychosocial" model more than either of the other two models; more than half (56.3%) of those working with both populations endorsed the "Eclectic" model.

Bi-Variate Analyses – Relationship Between Work Sites and Predictor Variables

The last set of Chi-Square analyses showed that staff education level did not differ significantly by either work site or by staff level of mental health training. However, work sites differed significantly by staff level of addictions training, $\chi^2$ (6, N = 111) = 12.92, p < .05), number of years working in addictions, $\chi^2$ (12, N = 111) = 22.23, p < .05), and number of years working in mental health, $\chi^2$ (12, N = 111) = 34.67, p < .05).

Bi-Variate Analyses – Relationship Between Subscale Scores and Predictor Variables

The purpose of these analyses was to examine the relationship between each of the addiction models' mean scale scores and the predictor variables. No significant mean differences were found based on whether staff worked in the field of mental health or the addictions field. However, results of the t-test for independent samples showed that the disease model subscale score did differ significantly based on whether or not staff had a history of drug or alcohol problems ($t = -3.41$, $df = 107$, $p = .001$). Staff members with a history of drug or alcohol problems scored higher on the disease model subscale compared to staff with no history of such problems ($M = 58.17$ vs. $M = 37.64$).

Analyses of variances (ANOVAS) were then performed to examine the relationships between the models' mean scores and those predictor variables with three or more levels. No significant differences were found on the subscale scores based on staff members' age, gender, length of time working in current job, number of years working in addictions, number of years working in mental health, and level of mental health or addictions training. Table 5 presents the significant findings. Interestingly, none of the variables predicted any significant differences in the psychosocial subscale score. Significant relationships were found between the "Disease" subscale and job title, recovery status, education level, and client population. There was also a significant relationship between the "Eclectic" subscale and job title and education level.

*Table 4*

Relationship Between Endorsement of Addiction Model and Job Elements (N = 110)

| | Job Title | | |
|---|---|---|---|
| *Predominant Model* | Medical Staff | Psychology/Social Work | Counsellors |
| | (Percentages) | | |
| Disease | .091 | 0.0 | 13.5 |
| Psychosocial | 75.8 | 47.5 | 70.3 |
| Eclectic | 15.2 | 52.5 | 16.2 |

| | Client Population | | |
|---|---|---|---|
| *Predominant Model* | Adults | Youth | Both |
| | (Percentages) | | |
| Disease | .096 | 12.5 | 6.3 |
| Psychosocial | 69.9 | 50.0 | 37.5 |
| Eclectic | 20.5 | 37.5 | 56.3 |

Means Comparisons Tests – Job Title

Results of multiple post-hoc comparison tests showed that Medical Staff scored 7.71 higher on the Disease subscale than the Psychology/Social Work Group, and that the counsellors scored 7.13 higher on this scale than did the psychology/social work staff. In addition, psychology/social work staff scored 4.28 higher than medical staff on the Eclectic subscale. Mean comparisons tests comparing the fourth group, "undefined" are not presented here since they may not be fully interpretable.

Means Comparisons Tests – Academic Degree

Results of multiple post-hoc comparison tests showed that those with a college degree scored 5.04 higher on the Disease subscale than those with a post-graduate degree. In addition, those with a certificate scored 4.48 higher on the same scale than did those with a college degree, and those with a certificate scored 9.53 higher than those with a post-graduate degree. Those with a post graduate degree (masters or higher) scored 3.66 higher than those with a certificate.

Multivariate Analyses - Multiple Regression

A series of multiple regression analyses were then conducted to determine the extent to which selected predictor variables accounted for variance explained in each of the "Disease" and "Eclectic" subscales, and in the "Predominant Mode", work site location and recovery history. Since no significant relationships had been identified in the univariate analyses between the "Psychosocial" subscale and any of the predictor variables, regression analyses were not conducted using this subscale as a dependent variable.

*Table 5*

Significance Tests of the Relationship Between the Subscale Scores and the Predictor Variables.

| Predictor Variable | Subscale | |
|---|---|---|
| | Univariate F | |
| | Disease | Eclectic |
| Client Population | 3.87* | ns |
| Recovery Status | 6.09** | ns |
| Job Title | 23.62*** | 12.11*** |
| Academic Degree | 20.80*** | 5.74** |

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

Prior to conducting the multiple regression analyses, the zero-order correlations among all of the predictor variables were obtained and examined to make certain none of them were too highly correlated with one another, a possible indication of multicollinearity. None of the correlations were excessively high.

The first regression analysis was performed to determine whether work site, job type (job title), academic degree obtained, level of mental health training, and recovery history (whether or not a history of drug/alcohol problems existed) predicted differences in the "Disease Model" subscale. Results of this analysis, including standardized partial regression coefficients, overall model $\underline{R}^2$ and significance levels are reported in Table 6.

This model shows that level of academic achievement (degree) and the presence or absence of a history of alcohol/drug problems are the best predictors of differences in scores on the Disease Model subscale. With the entry of academic degree at Step 3, more than 8 % of the variance explained in the Disease Model was accounted for, and the addition of history of alcohol problems at Step 4 increased the percentage of variance explained to .21. The Beta, or standardized regression coefficient of .30 for history of alcohol problems indicates that those with such a history would score .30 higher on the Disease Model subscale than those without such a history. Variables entered at the first two steps (work site, job title and type of population worked with) did not account for any of the variance explained in the Disease Model.

The second regression analysis was performed to determine whether work site, job type (job title), academic degree obtained, level of mental health training and recovery history (history of drug/alcohol problems or not) predicted differences in the "Eclectic Model" subscale. Results of this analysis, including standardized partial regression coefficients, overall model $\underline{R}^2$ and significance levels are reported in Table 7.

This model shows that work site location is the only predictor of differences in scores on the Eclectic Model Subscale. Starting at Step 1, where the variable was entered, it predicted about 10 % of the variance explained in the dependent variable at the last step. It remained a significant variable throughout all four steps of the analyses, even with the entry of the four additional variables at Step 4. The Beta, or standardized regression coefficient of .24 for work site, would predict a .24 difference on the Disease Model Subscale depending on the work site.

The third regression analysis was performed to determine whether job type (job title), population worked with and field predicted differences in the "Predominant Mode." Results of this analysis, including standardized partial regression coefficients, overall model $R^2$ and significance levels are reported in Table 8.

This model shows that the population with which staff is currently working is the only predictor of differences in Predominant Mode. Starting at Step 2, where the variable was entered, it predicted nearly 18 % of the variance explained in the dependent variable at the last step. It remained a significant variable throughout all three steps of the analyses, as indicated by the significant "t" statistic, even with the entry of the "Field" variable at Step 3. The Beta, or standardized regression coefficient of .25 for population at step 3, would predict a .25 difference on Predominant Mode depending on the type of population with which staff was currently working with.

The fourth regression analysis was performed to determine whether level of addictions training, years working in addictions and years working in mental health would account for variability in worksite, the dependent variable for this analysis. Results of this analysis, including standardized partial regression coefficients, overall model $R^2$ and significance levels are reported in Table 9.

*Table 6*

Hierarchical Regression Analysis – Disease Model Subscale

| Variable | Beta | t | $F_{change}$ | $R^2$ | $R^2_{change}$ |
|---|---|---|---|---|---|
| Step 1 | -- | -- | -- | -- | -- |
| Step 2 | -- | -- | -- | -- | -- |
| Step 3 | | | 3.58* | .13 | .066 |
| Population | -- | -- | -- | -- | -- |
| Worksite | -- | -- | -- | -- | -- |
| Degree | -.267 | -2.60* | | | |
| MH Training | -- | -- | -- | -- | -- |
| Step 4 | | | 10.30* | .21 | .087 |
| Worksite | -- | -- | -- | -- | -- |
| Population | -- | -- | -- | -- | -- |
| Degree | -.269 | -2.74* | | | |
| MH Training | -- | -- | -- | -- | -- |
| Alcohol/Drug Problem | .305 | 3.20* | | | |

* p = < .05.

Note: Dashes indicate insignificant results at the specific step of the analysis

*Table 7*

Hierarchical Regression Analysis – Eclectic Model Subscale

| Variable | Beta | t | $F_{change}$ | $R^2$ | $R^2_{change}$ |
|---|---|---|---|---|---|
| Step 1 | -- | -- | 4.96* | .048 | .048 |
| Worksite | .220 | 2.29* | | | |
| Step 2 | -- | -- | -- | -- | -- |
| Worksite | .240 | 2.14* | | | |
| Step 3 | | | -- | .077 | .023 |
| Population | -- | -- | -- | -- | -- |
| Worksite | .240 | 2.18* | -- | -- | -- |
| Degree | -- | -- | -- | -- | -- |
| MH Training | -- | -- | -- | -- | -- |
| Step 4 | | | | .099 | .023 |
| Worksite | .241 | 2.14* | | | |
| Degree | -- | -- | -- | -- | -- |
| MH Training | -- | -- | -- | -- | -- |
| Alcohol Problems | -- | -- | -- | -- | -- |
| Population | -- | -- | -- | -- | -- |

*p = < .05.

Note: Dashes indicate insignificant results at the specific step of the analysis

*Table 8*

Hierarchical Regression Analysis – Predominant Mode

| Variable | Beta | t | $F_{change}$ | $R^2$ | $R^2_{change}$ |
|---|---|---|---|---|---|
| Step 1 | -- | -- | -- | -- | -- |
| Step 2 | -- | -- | 8.11* | .074 | .072 |
| Job Title | -- | -- | | | |
| Population | .268 | 2.84* | | | |
| Step 3 | | | -- | .076 | .002 |
| Job Title | -- | -- | | | |
| Population | .257 | 2.65* | | | |
| Field | -- | -- | | | |

*p = < .05.

Note: Dashes indicate insignificant results at the specific step of the analysis

This model shows that level of addictions training and years working in addictions are the best predictors of differences in work site. Starting at Step 1, with the entry of addictions training, this variable predicted 6 % of the variability in worksite at Step 1. With the entry of Years working in Addictions at Step 2, the combination of these variables explained 12% of the variance in worksite. Both of these variables remained significant throughout all three steps of the analyses, as indicated by the significant "t" statistic, even with the entry of Years working in Mental Health at step 3. Years working in mental health did not predict any of the variance in work site.

The fifth regression analysis was performed to determine whether work site, gender, job title, academic degree, level of addictions training, and field would account for variability in history of problems with alcohol and/or drugs, the dependent variable in this analysis. Results of this analysis, including standardized partial regression coefficients, overall model $R^2$ and significance levels are reported in Table 10.

This model shows that Gender and Job Title were the best predictors of whether a staff member had a history of alcohol/drug problems. Work site, entered at Step 1 did not predict any variance in recovery status, but with the entry of Gender at Step 2, Gender alone predicted 10% of the variability in the outcome. At step 3, with the entry of Job Title, the combination of these two variables increased the percentage of variance explained, such that by Step 6, over 16 % of the variability in recovery history was explained by these two variables. Both variables remained significant up until the last step, with Gender remaining as the only significant variable, indicated by the significant t statistic. None of the other variables such as degree, field, and level of training, predicted any variability in the dependent variable.

*Table 9*

Hierarchical Regression Analysis – Work Site

| Variable | Beta | t | $F_{change}$ | $R^2$ | $R^2_{change}$ |
|---|---|---|---|---|---|
| Step 1 | | | 7.42* | .06 | .06 |
| Level of Addictions Training | -.253 | -2.72* | | | |
| Step 2 | | | 5.72* | | |
| Level of Addictions Training | -.201 | -2.15* | | .11 | .047 |
| Years working in Addictions | -.223 | - 2.39* | | | |
| Step 3 | | | | .12 | .012 |
| Level of Addictions Training | -.202 | -2.17* | | | |
| Years working in Addictions | -.192 | -1.98* | | | |
| Years working in Mental Health | -- | -- | | | |

*p = < .05.

Note: Dashes indicate insignificant results at the specific step of the analysis

*Table 10*

Hierarchical Regression Analysis – History of Alcohol/Drug Problems

| Variable | Beta | t | $F_{change}$ | $R^2$ | $R^2_{change}$ |
|---|---|---|---|---|---|
| Step 1 | -- | -- | -- | -- | -- |
| Step 2 | | | 6.70* | .065 | .065 |
| Gender | -.254 | -2.589* | | | |
| Step 3 | | | 4.64* | .108 | .043 |
| Gender | -.231 | -2.32* | | | |
| Job Title | .222 | 2.15* | | | |
| Step 4 | | | -- | .111 | .003 |
| Gender | -.203 | -2.05* | | | |
| Job Title | .222 | 1.97* | | | |
| Step 5 | | | -- | .142 | .032 |
| Gender | -.203 | -2.05* | | | |
| Job Title | .202 | 1.97* | | | |
| Step 6 | | | | .162 | .020 |
| Gender | -.218 | -2.20* | | | |
| Job Title | -- | -- | | | |

*p = < .05.

Note: Only data for significant variables are shown in the table. Dashes indicate insignificant results at the specific step of the analysis

# Discussion

The current study's objectives were to determine whether "recovery" status, education level, and age have an effect on the kind of addiction model endorsed by treatment staff at mental health and addiction treatment centres in Thunder Bay, Ontario. As well, although not included in the study's initial objectives, factors such as work site, field, profession (job title), length of time working in current job, number of years working in addictions and mental health, and population with which staff currently works or have the most work experience with were also investigated. These factors were studied to see whether or not they are connected with the addiction model endorsed by staff as reflected by SUSS subscale scores.

## "Recovery" Status Amongst Treatment Staff

Interestingly, the findings suggest that it is more likely for staff members who work at the Sister Margaret Smith Centre to have a history of drug or alcohol problems than staff who work at the Lakehead Psychiatric Hospital, Thunder Bay Regional Health Sciences Centre, Family Services Thunder Bay and Lakehead Regional Family Centre. As well, there is evidence that staff members with a history of drug or alcohol problems are more likely to be working in the addictions field than in a general mental health field. It may be that people who have had past drug or alcohol problems are drawn to careers in addictions because they can directly relate their personal experience to their line of work. Paraprofessionals with past drug and/or alcohol use problems may be regarded as good candidates for this line of work because of their personal experience with self-help treatment and recovery processes. The Sister Margaret Smith Centre offers more inpatient services for substance abuse treatment as compared to the other centres included in the study. It has been theorized that there may exist a "greater weight assigned to life experiences (including a personal history of "substance abuse") than to academic training among

managers of residential services compared to assessment/referral and outpatient services" (Ogborne, Braun, & Schmidt, 2001, p. 1833). As well, many of Ontario's residential addiction treatment centres were established by recovered addicts, and a pattern of hiring personnel with a history of drug and alcohol problems may persist because of this tradition (Ogborne, Braun, & Schmidt, 2001).

Job title was actually found to be one of the best predictors of whether or not a staff member has a history of drug and/or alcohol problems. Why are staff members with a history of drug and/or alcohol problems more likely to hold the job title of "Counsellor" than "Medical Staff" or "Psychology/Social Work"? One might argue that counsellors may feel more at ease in exposing their addiction history. Alternatively, this finding may be related to the fact that medical staff and psychology/social work staff are generally more highly educated. Thus, their professional paths may be linked with more stable life circumstances and they may be at lesser risk for developing substance abuse problems.

Staff members with a higher level of addictions training are more likely to have a history of drugs and/or alcohol problems. It may be that addictions treatment staff with little academic training are being progressively encouraged to seek out certification as addiction counsellors to be more competent in their employment field. However, this study did not find an association between education levels and staff's recovery status. Thus, it may just be the case that addictions staff (many of whom may have had past alcohol and/or drug problems) desire specialized certification to advance their careers and be more competent in their work.

The disease concept may not be as popular as it used to be in mental health and addiction treatment staff ideology. Survey results indicate a lower overall disease model endorsement as compared with the eclectic and psychosocial models. Thus, there may be growing acceptance of

harm reduction and cognitive behavioural addictions treatment approaches. However, recovering treatment staff still seem to score higher on the disease model than staff who have no history of drug and/or alcohol problems. Thus, the disease model still plays a strong role in shaping staff beliefs about substance abuse.

It is interesting to note that out of all the variables studied, staff "recovery" status was the best predictor of differences in disease model beliefs. Why are recovering mental health and addiction treatment staff members more inclined towards endorsing a disease model of addiction? One explanation is that it has to do with attributional style. Past research has shown that healthy people often engage in a self-serving bias and attribute adverse outcomes in their lives to causes that are out of their personal control (Fitch, 1964). Thus, individuals who have experienced the destruction of drug and/or alcohol addiction may be more likely to view their condition as a disease (i.e. physical illness), especially when this attribution leads to more compassionate treatment (Parsons, 1964).

Education

It was predicted that staff members with higher education would be less likely to endorse a disease model of addiction. This hypothesis was supported by the current study's research findings. Staff members with lower education levels scored higher on the disease model than staff with higher levels of education. Research has shown that education leads to the development of more analytical reasoning and scientific hypothesis testing skills (Borkman, 1990). Thus, it has been indicated in the addiction literature that "it is not surprising that staff members with higher education are less likely to have beliefs consistent with the disease model, for this perspective asserts its validity with reference to a different standard of proof: subjective,

first person accounts of the nature of substance abuse" (Humphreys, Noke, & Moos, 1996, p. 77).

Age

In the current study age did not play a role in addiction model endorsement. Age does not seem to influence Thunder Bay mental health and addiction treatment staff beliefs about the nature and treatment of substance abuse problems.

Work Site

There were no major differences in staff education levels at the various mental health and addiction treatment centres in Thunder Bay. However, there were site differences in staff level of addictions training and number of years working in addictions. The Sister Margaret Smith Centre has staff members with higher levels of addictions training, whereas Thunder Bay Regional Health Sciences Centre has the least, with the highest number of staff with no training whatsoever in addictions. Family Services Thunder Bay and Lakehead Regional Family Centre were the sites that had the most staff with the highest number of years working in addictions.

The high number of staff members with addictions training at the Sister Margaret Smith Centre suggests their strong commitment to professionalism within the addictions treatment field. This is an encouragement finding because it indicates that staff at the Sister Margaret Smith Centre have undergone specific training in the field of addictions and are likely more competent in the provision of treatment services. Staff members at Thunder Bay Regional Health Sciences appear to be lacking in addictions training. This finding is not surprising because substance abuse disorders are generally not the focus in mental health settings. However, given the high rates of comorbidity between addictions and mental health problems, perhaps addictions should be more of a focus in these settings.

Profession (job title)

More medical staff and counsellors endorsed the psychosocial model than either the eclectic or disease models. However, more psychology/social work staff endorsed the eclectic model than the other two models. Lower scores were obtained on the disease scale for all job titles. Thus, disease model beliefs may be increasingly discredited by mental health and addiction treatment staff across occupations, demonstrating the lessening influence of disease model precepts in Canadian treatment programs. Medical staff and counsellors seem to share the perspective that substance abuse disorders are primarily caused by social and environmental factors. Whereas, psychology/social work staff may be more guided by an eclectic treatment framework that rejects "simple disease and psychosocial model precepts" and see substance-abusing clients "as diverse individuals who require different treatment approaches" (Humphreys, Greenbaum, Noke, & Finney, 1996, p. 43 & p. 39).

Medical staff members were found to score higher on the disease subscale than psychology/social work staff. As well, counsellors scored higher on the disease scale than psychology/social work staff. Thus, medical staff members' and counsellors still appear to be influenced by the disease model conceptualization of addiction. Addiction continues to be seen as an incurable disease and dogmatic AA and 12-step approaches still have a presence in the addiction treatment field.

Client Population

Staff with the most experience working with adults scored highest on the psychosocial scale, and staff with the most experience working with youth also scored highest on the psychosocial scale. However, staff with the most experience working with a mixed (both adults and youth) population scored highest on the eclectic scale. Thus, mental health and addiction

treatment staff who see both adult and youth clients may have more of an appreciation for eclectic treatment approaches. They may feel uneasy treating patients with the use of only one theoretical orientation.

Discussion Summary

In conclusion, the present study found that the Sister Margaret Smith Centre employs more staff members with a history of drug and/or alcohol problems. Overall, more "recovering" staff members appear to work in addictions rather than the general mental health field. As well, more "recovering" staff members appear to be counsellors than medical staff or psychology/social work professionals. These findings are consistent with the documented trend of addictions centres hiring of staff who are skilled in supporting substance disordered people and in providing basic advice and counselling. Such skills are not necessarily acquired through advanced educational training but are developed with relevant life experiences, which could include a personal history of substance abuse (Ogborne, Braun, & Schmidt, 2001). However, the Sister Margaret Smith Centre does have a high number of staff with addictions training and this demonstrates their commitment to professionalism. The finding that staff who are in "recovery" are mainly counsellors, and that counsellors and medical staff endorse the disease model to a greater degree demonstrates the continuing influence of the disease model in mainstream society. Treatment staff members who are less educated support the disease model more so than those who are more highly educated. This demonstrates the power of education in shaping beliefs about the etiology of drug addiction and the appropriate treatment of drug and alcohol problems. Interestingly, psychology/social work staff were found to score higher on the eclectic model. This implies more of a desire on their part to combine different intervention approaches and to see a wide variety of patients as amenable to addictions treatment.

Study Limitations and Implications for Further Research

Response rates vary by the different mental health and addiction treatment centres surveyed in Thunder Bay. Thus, generalizations to other provinces or to Ontario as a whole should be done with caution. The total response rate for the study was 45 %. Although the response rate is less than desirable, it is fairly typical for a survey of this nature and is even higher than some other recent studies of addictions service providers where response rates have ranged from 20 % to 33 % (Morgenstern & McCrady, 1992; Moyers & Miller, 1993; Leavy, 1991; Oberlander, 1990).

There is a lack of empirical support in the literature for the psychometric properties of the Eclectic Orientation Subscale of the SUSS. Thus, it has been recommended by the authors of the SUSS that further research be conducted on the subscale's validity and reliability (Humphreys, Greenbaum, Noke, & Finney, 1996). More studies need to be conducted using the SUSS to reassess its properties and confirm its scientific effectiveness as a tool for measuring beliefs about substance abuse.

It is important to further investigate beliefs about addiction held by mental health and addictions treatment staff. Problems may ensue if staff members have conceptualizations about substance abuse that clash with their centres treatment orientation. Furthermore, treatment may be optimized if there is a match between treatment staff and patients beliefs about the etiology and appropriate treatment of substance abuse.

Patient care can be negatively impacted if treatment staff members abide by an outdated disease model of addiction. Furthermore, research has shown that recovering therapists may hold rigid treatment goals for their patients, and are resistant to alternative treatment orientations. These therapist confounds can contribute to high attrition rates, less engagement, and more

potential for patient relapse. Psychology/social work staff appear to be more eclectic in their addiction beliefs. This is partly due to the advanced education that they undergo in the field and their exposure to a wide variety of training orientations. Thus, more education needs to be provided in health care centres and academic programs about addictions and the treatment implications of the various chemical dependency models.

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Appendix A – The Short Understanding of Substance Abuse Scale (SUSS)

For each of the following statements, rate the extent to which you agree or disagree with it, using the rating scale provided.

| | | **Strongly Disagree** | | | | **Strongly Agree** |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| a. | Every alcoholic and addict must accept that he or she is powerless over alcohol and drugs, and can never drink or use drugs again | ☐ | ☐ | ☐ | ☐ | ☐ |
| b. | Alcoholics and drug addicts have a distinct set of personality traits by which they can be identified. | ☐ | ☐ | ☐ | ☐ | ☐ |
| c. | Every alcoholic or addict is one drink or one hit away from total relapse. | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. | The society or culture in which one grows up has a significant influence on whether or not one becomes an alcoholic or an addict. | ☐ | ☐ | ☐ | ☐ | ☐ |
| e. | If an alcoholic or addict isn't motivated, there is not much you can do to help him or her. | ☐ | ☐ | ☐ | ☐ | ☐ |
| f. | People can be born alcoholics or drug addicts. | ☐ | ☐ | ☐ | ☐ | ☐ |
| g. | A person's environment plays an important role in determining whether he or she develops alcoholism or drug addiction. | ☐ | ☐ | ☐ | ☐ | ☐ |
| h. | Once a person is an alcoholic or an addict, he or she will always be an alcoholic or an addict. | ☐ | ☐ | ☐ | ☐ | ☐ |
| i. | Alcoholism and drug addiction are caused, in part, by growing up in a dysfunctional family. | ☐ | ☐ | ☐ | ☐ | ☐ |
| j. | Usually if alcoholics and addicts fail to recover in A.A./N.A./C.A. or treatment, it is because they are unmotivated and in denial. | ☐ | ☐ | ☐ | ☐ | ☐ |
| k. | If an alcoholic or addict is sober or straight for five years, then starts drinking or using drugs again, he or she is right back where he or she left off in the development of the disease. | ☐ | ☐ | ☐ | ☐ | ☐ |

| | | Strongly Disagree | | | | Strongly Agree |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| l. | There are "problem drinkers" who have significant problems with alcohol, but who are not alcoholic. | ☐ | ☐ | ☐ | ☐ | ☐ |
| m. | Alcoholism and drug addiction are caused, in part, by what one learns about alcohol and drugs and the drinking/drug use patterns of one's family and peers. | ☐ | ☐ | ☐ | ☐ | ☐ |
| n. | A person can develop alcoholism or drug addition because of underlying psychological problems. | ☐ | ☐ | ☐ | ☐ | ☐ |
| o. | Denial is part of the personality of the alcoholic or drug addict. | ☐ | ☐ | ☐ | ☐ | ☐ |
| p. | Alcoholics and drug addicts who are forced into treatment do just as well as those who come into treatment on their own. | ☐ | ☐ | ☐ | ☐ | ☐ |
| q. | Except for detoxification, alcoholics and addicts should never be given psychiatric medications such as anti-depressants, lithium, or anti-anxiety drugs. | ☐ | ☐ | ☐ | ☐ | ☐ |
| r. | There are only two possibilities for an alcoholic or drug addict – permanent abstinence or death. | ☐ | ☐ | ☐ | ☐ | ☐ |
| s. | If an alcoholic has a drink, or if an addict takes a hit, they lose control and are unable to stop from getting drunk or high. | ☐ | ☐ | ☐ | ☐ | ☐ |

Appendix B

The Personal Details Questionnaire

**THE PERSONAL DETAILS QUESTIONNAIRE**

**GENDER:**

- ☐ Male
- ☐ Female

**AGE:**

- ☐ Under 25
- ☐ 25-35
- ☐ 36-45
- ☐ 46-55
- ☐ Over 55

**I AM CURRENTLY A MEMBER OF STAFF AT:**

- ☐ Lakehead Regional Family Centre (New Experiences Program)
- ☐ Lakehead Psychiatric Hospital (Northwestern Ontario Concurrent Disorders Program)
- ☐ Lakehead Psychiatric Hospital (Community Mental Health Services Program)
- ☐ Thunder Bay Regional Health Sciences Centre
- ☐ Sister Margaret Smith Centre
- ☐ Family Services Thunder Bay

**WHAT IS YOUR PROFESSION OR WORK POSITION TITLE?**

- ☐ Nurse
- ☐ Social Worker
- ☐ Psychologist

- ☐ Psychiatrist
- ☐ Occupational Therapist
- ☐ Recreational Therapist
- ☐ Counsellor
- ☐ Other _____

**HOW LONG HAVE YOU WORKED IN THIS FIELD?**

- ☐ Less than 1 year
- ☐ 1-5 years
- ☐ 6-10 years
- ☐ Over than 10 years

**WHAT IS YOUR HIGHEST ACADEMIC ACHIEVEMENT?**

- ☐ High School
- ☐ College
- ☐ Undergraduate Degree
- ☐ Master's Degree
- ☐ Doctoral or Medical Degree

**DO YOU HAVE ANY FORMAL TRAINING OR EDUCATION IN ADDICTIONS OR MENTAL HEALTH?**

- ☐ Certified alcohol or drug counsellor
- ☐ Certificate/diploma in addiction studies
- ☐ Member of a registered college of health professionals (addictions specialization or sub-specialization declared)
- ☐ Other Addictions Training/Education _____

**WHAT CLIENT POPULATION DO YOU CURRENTLY WORK WITH? (More than one answer may apply)**

- ☐ Children
- ☐ Adolescents
- ☐ Adults

**HAVE YOU EVER HAD ANY PERSONAL PROBLEMS WITH DRUGS OR ALCOHOL? (Optional)**

- ☐ Yes
- ☐ No

Appendix C

Consent Form

**SUBJECT CONSENT FORM FOR PARTICIPATION IN A RESEARCH PROJECT PSYCHOLOGY DEPARTMENT, LAKEHEAD UNIVERSITY**

**TITLE:** Staff Beliefs about Substance Abuse

**INVESTIGATORS:** Dr. Peter Voros, Community Mental Health Program
Thunder Bay Regional Health Sciences Program
Leandra Hallis, M.A. Candidate
Psychology Department
Lakehead University

You are being invited to participate in a study on staff beliefs about addiction in Thunder Bay, Ontario. This consent form contains general information about the study. If needed, please ask the investigators for further elaboration of any points in this form.

**Purpose of the Study:**

This study is being conducted in order to determine mental health and addiction treatment staff's beliefs about substance abuse. Your own understanding of the nature of alcoholism and drug addiction is of particular interest. As well, questions regarding your beliefs about the appropriate treatment of substance abuse will be asked.

If you agree to participate, we will ask you to complete two short questionnaires. It will take approximately 15-20 minutes for you to complete both forms.

**Possible Risks:**

There are no risks involved in participating in this study.

**Potential Benefits:**

This project is not necessarily of any direct benefit to you. However, the study results may call for an improvement in the quality of training and education offered to you in the area of addictions and in the treatment of dually diagnosed patients.

**Questions:**

If you have any questions concerning the study procedures or your participation in the study you can contact Dr. Peter Voros at (807) 684-6471 or at vorosp@tbh.net.

Upon request, research findings will be made available to you.

**Voluntary Participation:**

Your decision to participate in this study is completely voluntary and you may withdraw from the study at any time without penalty of any kind. You are free to refuse to participate in the study.

**Confidentiality:**

Information obtained from you will be confidential to the full extent permitted by law. Your name or any other identifying information will not appear on any forms.

The results of the study may be used for educational purposes such as publication in a journal, or presentation at a meeting. You will not be identified as a study participant in any publication or presentation

**CONSENT TO PARTICIPATE**

My signature below indicates that the study has been explained to me. I read the above information and any questions that I may have had have been answered to my satisfaction. I freely give my consent to participate in this study until I decide otherwise.

I understand that by signing this consent form I do not waive any of my legal rights.

I understand that I will receive a copy of this consent form.

Participant _____
(Print Name)

Signature _____ Date _____

Investigator _____
(Print Name)

Signature _____ Date _____