

Factors Affecting Sobriety After Treatment: An Outcome Study  
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Abstract

The purpose of this study was to determine which of a variety of demographic, attitudinal and other background variables impacted upon desired treatment outcomes among Deaf and Hard of Hearing persons who had completed treatment at The Minnesota Chemical Dependency Program for Deaf and Hard of Hearing Individuals (MCDPDHHI). The MCDPDHHI is a model inpatient treatment program which is hospital based and has received federal funding from the Center for Substance Abuse Treatment and the Office for Special Education and Rehabilitation Services.

The program represents a unique approach to the study of Deaf and hard of hearing individuals who have completed alcohol and/or drug treatment. A formative evaluation was conducted using client demographic profiles and a variety of descriptive and statistical analyses. The study goals were to (1) make recommendations for the enhancement of program effectiveness and (2) to determine the relationship between selected demographic variables and treatment outcomes. At the time of this study, there were no other programs in the country with which to make comparisons. This paper therefore represents an evaluation of the program and provides recommendations for its improvements.

**Introduction**

Although there have been some attempts at doing prevalence studies to determine the incidence of substance abuse in the Deaf community, there have been no follow-up studies of Deaf and hard of hearing individuals who have completed treatment. The following article will report the results of a study that was completed at The Minnesota Chemical Dependency Program for Deaf

and Hard of Hearing Individuals and involved a follow-up study of 100 individuals who had completed inpatient treatment. These individuals were followed for a year to determine if they maintained sobriety and if they reported an enhanced quality of life.

The Minnesota Chemical Dependency Program for Deaf and Hard of Hearing Individuals (MCDPDHHI) is a specialized program designed to meet the communication and cultural needs of Deaf and hard of hearing persons in chemical dependency treatment. The program utilizes a twelve step model with behavioral components and is the recipient of several training grants from the Office for Special Education and Rehabilitation Services (OSERS, 1991-present) as well as a Critical Populations Grant from the Center for Substance Abuse Treatment (CSAT, 1990-1995). The grant funds enabled program staff to provide outreach and training, to modify and develop materials as well as to provide treatment to Deaf and hard of hearing individuals. Each client is viewed as unique and staff strives to meet treatment needs in an individualized and therapeutic manner. Attention is given to client diversity with respect to ethnic background, education, socialization, cultural identity, family history and mental health status. An additional goal is to provide the necessary tools for replication of this model program nationally. While treatment is important in intervening in substance abuse, real recovery work begins after

treatment. A part of that work involves the recognition of the prevention of relapse. Many variables can influence relapse but the lack of accessible resources can be a major factor for Deaf and hard of hearing people. Specialized materials which take into account the communication and cultural needs of Deaf and hard of hearing persons can positively contribute to the process of recovery. Support services such as aftercare, vocational rehabilitation and self help groups can help to encourage ongoing pursuit of a recovering lifestyle but only if they can be accessed by the Deaf or hard of hearing person.

The majority of clients who have entered the MCDPDHHI report use beginning at approximately ten years of age. Since opening the MCDPDHHI in March, 1989 to December, 1997, 609 clients have been served. Of those served, 17 have been under the age of 18 and another 20 were 18 at the time of admission even though use was reported to begin much earlier.

### **Purpose of the Study**

When clients finish treatment at the MCDPDHHI, an aftercare plan is set up. It was difficult however, to track all of the consumers to determine if they had continued to maintain their sobriety. Because of this, a follow-up survey was developed that could be administered with local clients in a face to face interview, via the tty , or administered in person by a

professional who works with the client and then returns the survey to our program. This follow-up study investigated which variables contribute to the success or failure of Deaf and hard of hearing clients admitted into the Program for treatment. The research identified program strengths, weaknesses and omissions and made recommendations which will enable corrections and improvements to be made. The purpose of this study was to determine which of a variety of demographic, attitudinal and other background variables impacted upon desired treatment outcomes among Deaf and hard of hearing persons who had completed treatment at The MCDPDHHI. In addition, the information thus obtained will impact the larger Deaf and hard of hearing communities by indicating which program components contribute to the provision of the most effective treatment for this population. This information will be available for use on a national basis and will assist in replication of a model treatment program for Deaf and hard of hearing chemically dependent individuals.

It should be noted that this study was done using internal data because there are no other programs in the country with which to make comparisons. It was therefore necessary to analyze the program and its results in order to determine how to improve it.

Study participants included one hundred individuals who

completed chemical dependency treatment at the MCDPDHHI. They were from numerous states within the US and ranged in age from 17 to 72 years. Clients were asked to complete five instruments: (1) A pre-treatment survey administered through a signed, voiced and captioned videotape that is completed upon entering treatment. This survey measures attitudinal, behavioral and knowledge changes, as related to substance abuse, that may occur while in treatment; (2) a post-treatment survey administered through a signed, voiced and captioned videotape measuring attitudinal, behavioral and knowledge changes, as related to substance abuse, that occurs upon the completion of treatment; (3) a demographic questionnaire; (4) A client satisfaction survey; and (5) a follow-up questionnaire which is completed through an interview between staff and former clients after discharge at 1,3,6 or 12 month intervals.

### **Description of the study**

The study included a description of predictor variables, including deafness characteristics, demographics, treatment readiness indicators, pro-recovery attitude, background information, consequences in the major life areas (i.e. social, family, legal, financial, and school/work) and referral information. Outcome variables of interest included drug/alcohol status, employment/school status, living arrangement, psychosocial improvements, psychosocial assets, status of

problems now, and aftercare participation.

The research investigated the relationships of client, treatment involvement and treatment outcome variables in the hope that this knowledge would assist in outcome predictions and assist in future treatment modifications. This research ascertained if a positive change occurred within the first, third, sixth, or twelfth month after the completion of treatment related to a client's health/mental health status, vocational/school status, functional living, or ability to reduce or stop the use of alcohol/drugs. The results were broken down into short-term (first and third month follow-up calls) and long-term (sixth and twelfth month follow-up calls). The goal of the study was to determine which client and treatment variables had the highest rate of predictability of the desired array of outcomes. Information gathered in this study was used to assist in the further development of effective treatment programs for this population.

The independent variables were broken down into categories that consisted of overall demographics, overall communication/deafness, overall treatment/aftercare, short-term demographics, short term communication/deafness, short-term treatment/aftercare, long-term demographics, long-term communication/deafness and long-term treatment/aftercare.

The five dependent variables examined include follow-up

measures of general improvement, abstinence, alcohol use, marijuana use and aggregate drug use. General Improvement was measured as a composite of the following four questions taken from the follow-up survey. 1.) "I have less problems now as compared to before I entered treatment;" 2.) "I have less family problems now as compared to before I entered treatment;" 3.) "I have less money problems than before I entered treatment;" 4.) "I have better health now than before I entered treatment."

The dependent variables were collapsed into two categories: 1.) General Improvement and 2.) Abstinence. Abstinence was thought to encompass variables dealing with drug and alcohol use, since the overall outcome goal was abstinence from all use. Therefore, analyses of general improvement and abstinence were emphasized.

### **Limitations of the Study**

This study represented the first known effort nationally to examine outcome data of Deaf and hard of hearing individuals who have successfully completed an inpatient chemical dependency treatment program. As with any such initial study, there are inherent limitations existent that the investigator must identify and address. The first limitation of this study is that it was based on internal data only since no comparable chemical dependency programs were available to use in the comparison. The second limitation was the relatively small number of individuals

available to use in the research sample since only 600 persons have been admitted into the program since it began in 1989. A third limitation was that the five survey instruments that were used were designed with other purposes in mind than supporting research of this kind. For example, the research would have been more definitive if a survey had made a clear distinction between obtaining employment and going to school after treatment as compared with some situations prior to entering the program. A fourth limitation is related to language limitations of the population in regard to the use of the follow-up survey. Ideally, the follow-up process should be completed in a face to face interview using the preferred communication style of the participant. Because the MCDPDHHI is national in scope, it was not possible to have all individuals interviewed in person. The majority of the follow-up surveys were completed via a TTY and as a result, some questions were either not answered or possibly misunderstood. In these cases, an attempt was made to contact referral sources, family members or other individuals who could provide corroborating data.

### **Relative Outcome**

There were 14 independent variables that showed statistically significant linear relationships with respect to general improvement. These variables were: AA/NA attendance, contact with sponsor, family counseling attendance, employment



status, method of payment, highest grade completed, recommend program to a friend, return to the program if relapse, program help you, degree of alcohol use, degree of marijuana use, degree of other drug use, talk to friends about sobriety and talk to family about sobriety. There were four independent variables that showed statistically significant linear relationships with respect to abstinence. These variables were: *AA/NA attendance, employment status, talk to friends about sobriety and talk to family about sobriety*. The three variables that were significantly related to both general improvement and abstinence were: *AA/NA attendance, ability to talk with family and employment status*.

Eight independent variables showed statistically significant linear relationships between both short and long term data and general improvement. These variables were: *degree of alcohol use, degree of marijuana use, degree of drug use, attending AA/NA meetings, contact with sponsor, employment status, method of payment and talk to family about sobriety*.

Four independent variables showed statistically significant linear relationships between both short and long term data and abstinence. These variables were: *AA/NA attendance, the ability to talk with family about sobriety, employment status and time since last use*.

The three variables that were significant for the short/long

term data related to both general improvement and abstinence were: *AA/NA attendance, the ability to talk to family about sobriety and employment status.*

Therefore, the variables that were significant for the overall and short/long term follow-up data with respect to both general improvement and abstinence were: *AA/NA attendance, ability to talk with family about sobriety and employment status.*

### **Outcome**

Taking into account all drugs (i.e., alcohol, marijuana and other drugs), abstinence was reported by 36% of the clients at follow-up, while an additional 15% reported using a single drug less than monthly. Post-treatment drug use was computed for specific drugs as well. This analysis was organized around two separate follow-up client groups: those for whom short-term (three or fewer months) post-treatment data was collected and those for whom long term post-treatment (six or twelve months) outcome was obtained. Alcohol was used more often for both follow-up groups (45.2% and 55.4%, respectively), compared to marijuana (17.9% and 17%, respectively) and other drugs (23.3% and 15.7%, respectively). Thus, the majority of nonabstainers at follow-up, regardless of the time period, preferred using alcohol compared to other drugs. However, a small but appreciable percentage of clients were using more than one substance during the post-treatment period. Another observation from the alcohol

follow-up results is that a significant proportion of nonabstainers reported weekly or daily use; this level of use was present among 79% of the nonabstainers in the short-term group and among 45% in the long-term group. Perhaps the popularity of alcohol at follow-up is not too surprising; at intake, 60% of the full sample gave alcohol a preferred drug rating.

As previously indicated, three predictor variables were significant predictors of abstinence for either the short-term or long-term follow-up groups: *employment status at follow-up, availability of family to talk to during follow-up, and AA/NA attendance*. Thus, clients were more likely to be abstinent or using less drugs at follow-up based on if they were employed, had a family with whom they could talk to about sobriety and participated in post-treatment services such as AA/NA.

The most significant finding of this study is the relationship between employment and sobriety. The majority of clients entering treatment are on some kind of public assistance and unemployed. There needs to be a stronger relationship between treatment providers and vocational rehabilitation to assist in the ability to increase the number of clients who are able to become employed upon the completion of treatment. Each state has different criteria related to the length of sobriety required before services can be provided. While one state may be able to work with a client immediately upon discharge from

treatment, other vocational rehabilitation offices require six months of sobriety. The time immediately following treatment is a crucial time period for vocational services to begin to be provided with the counselors staying involved even after the client is placed on the job.

While there were only three variables with respect to abstinence that were determined to be significant, fourteen variables showed statistically linear relationships with respect to general improvement. Clients report overall general improvement in their life at follow-up if: *they are in contact with a sponsor, attend AA/NA meetings, attend family counseling, have friends or family with whom they can talk to about their sobriety and are employed. Degree of alcohol, marijuana or other drug use was also determined to be significant, as was method of payment for treatment, highest grade completed, if they would recommend the program to a friend and felt the program helped.*

One demographic, highest level of education, was a significant predictor of general improvement. Clients were more likely to report overall general improvement if they had a higher educational level, as shown by the positive relationship with general improvement.

Demographic data indicated that 36% of those admitted to treatment that participated in this study were on some kind of public assistance and were not employed or in school.

Individuals who were receiving public assistance were also able to stay in treatment longer. The number of treatment days was related to method of payment: Those under public assistance tended to have a greater number of treatment days compared with those under private pay. The number of treatment days was related to employment status at follow-up: Employed individuals tended to spend fewer days in treatment versus unemployed individuals.

Those employed at follow-up were typically ones classified as private pay. Those not employed at follow-up(36%) tended to be under public assistance. This would lead one to speculate that if individuals who are employed are shown to maintain abstinence for a greater length of time than those who are unemployed and their treatment stays are shorter, the length of time in treatment may not be a significant factor as to whether clients are able to maintain sobriety.

Once the study was completed, the author was interested in comparing the findings with the hearing population. Several studies have been completed with hearing individuals that have had similar outcomes to this study. Menaja Obinali(1986) completed a study in conjunction with Camarillo State Hospital's Alcoholism Treatment Unit based on factors that contribute to successful or unsuccessful treatment completion. Findings indicated that successful completion was related to the

following: employment history, involvement in psychotherapy and environmental milieu and attendance at Alcoholics Anonymous meetings. Three of the four factors listed were found to be significant in this study recently completed with Deaf and hard of hearing individuals. The Camarillo study also found that although not statistically significant, higher levels of education were associated with successful completion. Higher levels of education were found in the study with Deaf and hard of hearing individuals to be related to overall general improvement.

A study by George Vaillant (1988) which included 100 heroin addicts and 100 alcohol-dependent individuals investigated long-term follow-up as related to relapse and prevention of relapse in addiction. Findings indicated that primary factors were: *compulsory supervision (parole, employment), substitute dependence (AA/NA, parole), new social supports (sponsor, AA/NA) and inspirational group membership (12 step meeting attendance)*. These results were very similar to the findings of this study.

### **Recommendations**

The study developed twelve general recommendations related to chemically dependent Deaf and hard of hearing individuals. Each of these major recommendations, if implemented, may have a significant impact on future treatment programs attempting to serve Deaf and hard of hearing individuals. All of the recommendations are based on the relationship between the

overall, short/long term independent variables listed under the categories of: typical demographics, deafness/communication demographics and, treatment/aftercare with respect to the dependent variables of abstinence and general improvement.

**The recommendations are as follows:**

**1. Make vocational rehabilitation a strong component of inpatient treatment and the aftercare that follows. This could be done by involvement on a consulting or formal staff basis.**

This research has indicated that there is a strong relationship between abstinence and employment. This would seem to indicate that there must be an emphasis on career exploration by individuals while in treatment and the linkage of vocational rehabilitation services with treatment. One previous study (Gorski, 1980) found that up to a third of the disabled individuals applying for vocational rehabilitation services may be alcoholic. This supports the need to explore additional linkages with vocational rehabilitation. This linkage can either be done by hiring a staff member who is a certified vocational rehabilitation counselor for the Deaf or by contracting with a consultant trained in this area. During the final phase of treatment, the staff should spend time specifically on strategies related to employment and job readiness skills. The vocational rehabilitation counselor would be responsible for assessing the individual's potential related to employment while in treatment

and if they are from the local area, they would follow their case upon discharge and assist in job training and placement. If the individual is from out of state, the vocational rehabilitation counselor would be a liaison with the home community and assist in accessing appropriate services at time of discharge.

Consideration will have to be given to special arrangements for those that are from out of state.

**2. A curriculum must be developed that focuses on the importance of employment and teaches some basic skills related to how to seek, access and retain employment.**

The first recommendation will not be effective unless individuals in treatment understand the whole relationship in the work world of securing employment, holding a job and being satisfied while doing so.

Many of the individuals who enter treatment are on some kind of public assistance and not employed. As the demographic data indicates, 36% of the subjects admitted to treatment were on some kind of public assistance and were not gainfully employed or in school. This is an issue that needs to be addressed since there is little, if any, motivation for some Deaf and hard of hearing individuals on public assistance to get off of it. In some situations, parents and others before them were also on public assistance. The tendency of our welfare and assistance programs to financially penalize individuals who obtain income



from jobs, needs to be thoroughly examined. All of this makes the preparation of the curriculum difficult, but very important.

**3. Departments of Vocational Rehabilitation in various states need to have consistent policies which support the need for assistance during and upon discharge from treatment.**

Presently there is no such consistency. In order for national standards to be developed, attention must be paid to uniform provisions. Currently, individuals in some locations are required to demonstrate a specific period of abstinence ranging from 6 to 12 months, prior to becoming eligible for vocational rehabilitation services. This research shows this to be a paradox since abstinence is related to having employment. Some treatment professionals would argue that in order for an individual who has successfully completed treatment and is not employed, to maintain sobriety, they need to immediately secure work and be involved in a solid support program. On the other hand, some vocational rehabilitation agencies won't provide support to individuals who are chemically dependent because they don't want to place them on a job and have them relapse. They feel that six to twelve months of sobriety is necessary to prove that they can be reliable employees.

**4. Training programs need to be established for vocational rehabilitation counselors, social workers, chemical health assessors, teachers, administrators, psychologists and mental**

**health counselors serving Deaf and hard of hearing individuals. This training should focus on provision of knowledge about the unique considerations related to this population.**

Presently, difficulties are created for the Deaf and hard of hearing chemically dependent population because professionals working with them have had no training related to substance abuse. This training should include: chemical dependency assessment, how to recognize signs and symptoms of use/abuse, prevention strategies, clinical issues, and the referral process and aftercare options. Staffing a specialized treatment program such as the MCDPDHHI also becomes a major challenge because there are few if any trained professionals in this area who are fluent in sign language. The research highlighted the need for support services such as AA/NA meetings. Without proper training, the professionals serving the recovering Deaf and hard of hearing population will not fully understand the importance of advocating for this type of service for their clients. It is essential for cultural identity to be explored as part of the recovery process in a specialized program serving Deaf and hard of hearing individuals (Myers, 1992).

**5. Courses related to substance abuse and deafness should be required of students interested in pursuing careers in vocational rehabilitation, education, administration, social work, psychology, mental health, ministry, etc. A major career area**

**should be developed that would provide the opportunity for certification related to counseling the chemically dependent Deaf and hard of hearing population.**

Currently, there are few if any collegiate training programs for professionals interested in working with Deaf and hard of hearing individuals. This research indicates the need for strong support systems related to talking about sobriety with friends/family and attending self help groups such as AA/NA. Colleges and universities provide no formal education to those people who will work with this population related to how to recognize if a problem exists, the barriers these individuals face and appropriate tools to deal with them. Such courses need to be offered to all individuals entering the field of deafness if proper services are to be provided.

After the courses have been developed, the method and need for certification of counselors working with the Deaf and hard of hearing chemically dependent population should be investigated. Deaf counselors need to be trained and hired at treatment centers for Deaf substance abusers (Rothfeld, 1982). This kind of approach will foster greater communication and provide positive role models to individuals in treatment.

**6. A hotline should be created that would be available for Deaf and Hard of Hearing individuals if they need help in accessing treatment, self help groups (i.e. AA/NA), other support services**

**or maintaining sobriety. The phone number should be available 24 hours a day, toll free, tty accessible and available on a national basis.**

The research indicated the need for support systems such as AA/NA and friends/family to talk to about sobriety. There is a serious shortage of resources available on a national basis to serve chemically dependent Deaf and hard of hearing individuals.

Often these people end up in crisis because of the lack of awareness of professionals and the Deaf community as to how to access support. The hotline would serve this purpose by providing support to family members, friends, concerned persons, significant others and substance abusers. Without this service a number of the problems disclosed by the research will not be completely solved even with the recommendations included here.

**7. Methods need to be developed to emphasize the importance of the inclusion of family members and friends of the subjects in structured portions of the full treatment experience.**

Since the independent variable of the ability to talk with family about sobriety is significant, this component needs to be addressed during treatment. Professionals, caregivers, family members and friends when trying to ease their own pain, enable the disabled individual to continue his or her chemical dependency. Family, friends and other concerned persons encourage the use of alcohol or drugs believing that this will

help the person who is disabled to socialize, obtain happiness or satisfaction, and perhaps even feel equal to able bodied people (Schaschl and Straw, 1989). These feelings and behaviors displayed by family members and friends must be dealt with if the individual is to maintain sobriety. Treatment programs need to continue to focus on the importance of finding sober friends to talk to about problems. One way of doing this is to invite a friend to participate during family week when family members and significant others are encouraged to spend one week learning about substance abuse and engaging in a therapy group with their family member. Educational information related to Alanon and other support services available should be provided to an individual's friends and family during treatment.

**8. Additional information should be provided to subjects related to the role of a sponsor in their recovery process.**

This research indicated there was a relationship between abstinence and access to a friend with whom clients could talk about sobriety. In general, this describes the role of a sponsor in a Twelve Step Program. However, there is a shortage of recovering individuals who are Deaf or fluent in American Sign Language and appropriate to be a sponsor. This research was not able to demonstrate a relationship between abstinence and having a sponsor. This writer questions whether subjects use their friends in the same manner a sponsor should be used because of

the shortage and lack of awareness of how to utilize a sponsor.

**9. There is a national need for additional accessible self help groups such as AA/NA/Alanon, CA, etc.**

Feedback during follow-up indicated that subjects were not attending AA/NA meetings as consistently during the first six months following treatment as from six to twelve months. One of the theories behind this may relate to the ability of some of the subjects to "white knuckle it" and survive on a "treatment high".

This is typically felt by subjects who become sober, complete a treatment program and think that because of all they have learned, they will never use drugs or alcohol again. They tend to continue with the same relationships, same friends and same lifestyles. At some point, something triggers a relapse and they risk falling back into the same using patterns. This study indicates that once a person has been out of treatment for six months or longer, it isn't as possible for them to stay sober if they don't participate in a self help program such as AA/NA. But it is clear that there is a need for more accessible AA/NA meetings. Until there are more available meetings on a national basis, subjects will not be aware of the positive support and results they may access at all times. It is difficult for counselors and service providers in this field to tell their clients they need to attend twelve step meetings to stay sober,

but then not have accessible meetings in the client's area.

**10. There is a need to establish additional services related to aftercare.**

Overall, aftercare continues to be one of the greatest obstacles in assisting clients to maintain sobriety and improve their quality of life. The biggest gap seems to be related to accessing safe and sober living environments upon the completion of treatment. This relates to the research findings involving the importance of having a support system available to maintain abstinence. Most states have no continuum of service available in this area. In some states inpatient or outpatient services are provided, but no long term sober living options are available for Deaf and hard of hearing chemically dependent individuals.

**11. Additional funding through grants and other methods for outpatient treatment, inpatient treatment, prevention services, aftercare, and sober living environments should be sought.**

With today's economy, organizations need to be innovative and creative in finding ways to fund programs for specialized populations such as for the Deaf and Hard of Hearing. Examples of the continuum of care needing additional monies are part of this recommendation. Special attention needs to be paid to grant writing strategies because they are needed by professionals interested in developing comprehensive treatment services as reductions continue to occur at the federal, state and local

level, and alternative funding sources need to be found. Grant writing is recognized as one important skill to have and training is beginning to be offered to some professionals to assist them in accessing funding for specialized services such as those discussed above.

**12(a). This research study should be revised, continued and expanded because the small number of available subjects may not have completely validated its' conclusions.**

This study consisted of 100 subjects because at the time the research project was initiated, there was not a larger number available for inclusion. The results appear to be significant and may provide support for future recommendations at the MCDPDHHI and other programs that may choose to utilize this research. The nature of the studied population makes it important to have as much information available as it is possible to obtain. Before making major changes in current programs such as the MCDPDHHI, or making recommendations to others who want to duplicate the MCDPDHHI's efforts, it is necessary to be sure that the conclusions of this study are valid. One method of ensuring this would be to propose a replication of this study using a larger sample when it is available.

**12(b) Additional research, including more longitudinal studies, is also strongly suggested.**

Additional research is needed in the area of substance abuse



and deafness. A national data base should be established related to demographic and other appropriate research involving substance abuse and deafness. Longitudinal studies offer reassurances of reliability which short-term studies cannot and help to discount the effects of other present factors of inadequate research.

### **Final Conclusions**

The number of facilities emerging to meet the needs of Deaf and hard of hearing substance abusers is increasing and existing resources are gradually attempting to make their services accessible to Deaf and hard of hearing people. The increase in attention being given to preventive efforts is applauded, and it is hoped that more and expanded focus in this area will continue. The integration of community models and public health concepts offers a promise of a wider perspective. This appears to be a wise approach to addressing problems of addiction.

Ideally, individuals who successfully complete an alcohol/drug treatment program should be able to return to the environment that they lived in prior to entering a treatment program. However, that environment must include a sober living option, family/friend support, professionals trained to work with clients on aftercare issues and accessible twelve step meetings. There are at least two problems in achieving this result. One is that the local education facilities, support groups, counselors, family and friends vary widely from one part

of the country to another. Some individuals can return to a positive healthy living situation that is supportive, while the majority of individuals leaving treatment do not have that opportunity available to them. Secondly, current laws sometimes inhibit good opportunities to intervene with these individuals at an early age.

The Mayo Clinic Health letter (April, 1995), discussed the importance of a support system and being well connected. It found that the more social ties a person has, the better the person feels emotionally and physically. The article supports the need for people to have family and friends to talk with as well as belonging to structured organizations such as twelve step groups. The Mayo Clinic study conforms with the conclusions reached in this study.

It is interesting to note that the major conclusions of this research relate to the environment which the subject enters after leaving treatment. This is the same kind of discussion that is occurring nationally in relation to child abuse, juvenile delinquency, teenage violence and similar problems. It appears that there is a belief that it will not work to return an individual with problems to the same situations that existed prior to their difficulties. Children who have been abused should not be returned to the abusing adults. Teenagers who have been violent should not return to their parents and old

neighborhoods and instead should go to a different more supportive location. Similarly we have found that chemically dependent Deaf and hard of hearing individuals need to be in a supportive environment after treatment in order to be successful in their recovery.

This research appears to demonstrate that pre-conceived opinions that Deaf and hard of individuals are at greater risk of addiction than the general population may not be correct. When Deaf and hard of hearing individuals receive the same treatment as hearing persons, outcomes appear to be the same and aftercare needs are similar and equally important. We will not fairly measure the risk factor until Deaf and hard of hearing individuals receive the same consideration as hearing persons in regard to prevention, intervention, accessible treatment and adequate aftercare. That is not the case today.

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