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Meeting the Addiction Education and Training Needs of Rural Master's Level Social Workers

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Introduction

Direct practice social workers have traditionally been called on to respond to communities' social challenges such as family violence, child abuse and neglect, mental health, poverty and crime (Fuler & Wells, 2003; Gurley & Satcher, 2003). One human condition that crosses all of these issues is addiction, defined as a "physiological and psychological dependence on a behavior or substance" (Barker, 2003, p. 7). A primary problem encountered in all social work practice is addictions to alcohol and other drugs.

Most recently, 8.46 percent of the population in the United States met the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) criteria for alcohol abuse or dependence. Another 2.0 percent had a drug use disorder, with many of these meeting the criteria for a mood or anxiety diagnosis as. well (Grant, et al., 2004). It is reasonable to assume that many social work practice populations have higher rates of addiction than the general population as 86 percent of U.S. social work respondents from a national study of the profession report that they provide some sort of mental/behavioral health services (NASW, 2003). Preparation for social workers in the addictions arena is necessary, however scholarly opinion concerning the academic preparedness of social workers to face the challenges of the addicted person generally finds the profession lacking (Googins, 1984; Alaszewski & Harrison, 1992; Magura, 1994; Rhodes &

Johnson, 1996; Hall, Amodeo, Shaffer & Vander Bilt, 2000).

Given the extent of addiction related problems, and to better assess concerns regarding professional workforce preparedness, the authors conducted a survey to determine if practicing MSWs in a large rural state, who had been trained in schools across North America, found that they were educationally prepared to respond to the needs of addicted clients. Practitioners were also polled to determine their addiction related continuing education needs, and to ascertain their opinion regarding requiring addiction-specific course material in the curriculum. They were also polled regarding the advisability/need for the offering of an elective emphasis in addiction studies in the state's new MSW program. By assessing addiction related training needs of practicing masters level social workers, the researchers hoped to gain ground level knowledge from which to design a needs based program of addiction focused continuing education, and to inform curriculum development in the new, rurally focused MSW program.

Literature Review: Social Workers and Addiction Services

The preparedness of rural social workers to respond to clients with addictive disorders is an area of study which needs further development. The profession is central to working with addicted individuals. Social workers often act as first

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responders to clients that have substance abuse problems, but social worker's lack of training may limit substance abusing client's access to appropriate and effective treatment and intervention (Hall, Amodeo, Shaffer, & Vander Bilt, 2000).

Despite practicing social worker's frequent contact with substance abuse/dependent clients in a variety of practice arenas, there are a low number of social workers employed directly in the field of alcohol and drug treatment (King & Lorenson, 1989; Sun, 2001). One idea advanced to explain the apparent dearth of professionally licensed social workers practicing in the field of substance abuse is that schools of social work do not require substance abuse courses and rarely prepare practitioners specifically for addiction specialty certification. Social work schools also do not routinely integrate substance abuse specific material into the curriculum (Rhodes & Johnson, 1996). Not feeling prepared, social workers may shun positions directly involving addiction treatment. Lack of specific training may also place social work professionals at a competitive disadvantage in the employment market. Hall, Amodeo, Shaffer & Vander Bilt, (2000) provided empirical support for the common perception that substance abuse treatment training resources for social workers are generally inadequate to meet the demands of practice needs, especially when the social worker goes on to practice directly in an addictions service setting.

Research studies examining the social work profession's position in the field of addictions, including the above studies, generally survey a sample of personnel working in addictions training facilities (Ibid; Sun, 2001; Alazewski & Harison, 1992; Burke and Clapp, 1997). The authors have not found evidence of a comprehensive national or statewide survey of the social work professional community regarding experience, contact with addicted populations, preparedness for treating addicts, and/or practitioners perceptions regarding the training they have received. Additionally the authors find no literature providing evidence that practicing social workers have been asked; "What *is* needed"? Based on the above review, the current study posed the following research questions: Do rurally located LCSWs feel educationally prepared to respond to the needs of addicted clients? What specific addiction education/training is needed? And lastly what is the opinion of practicing LCSWs regarding required inclusion of addiction-specific course material in the state's new MSW program. Due to prior knowledge held by the authors about the practicing community, the study also sought to ascertain where the respondent had been educated at the graduate level.

Method

Rural Region and Sample

Rural areas in the United States comprise a significant portion of the population. There are 3,142 counties in the United States. Twenty percent of the American population (approximately 53 million people) live in the 2,308 non-metropolitan counties, disbursed over three fourths of the land mass. Montana constitutes a large sparsely populated rural/frontier region encompassing 145,552 square miles and 56 counties. Of these 56 counties, 52 are considered to be non-metropolitan (USDA, 2004). 30 counties are classified as 'frontier' counties with three or fewer persons per square mile. Thus Montana, with its overall population density of 6.2 persons per square mile, is among the most rural states in the nation and is the 4th largest in terms of land mass, being 550 miles from east to west and 315 miles north to south (CEIC, 2004). There are just less than one million residents in the whole state.

At the time of this study Montana's widely dispersed population was being served by 382 LCSWs. The sample for this survey included all LCSWs in the state of Montana with valid instate mailing addresses. While others do serve the addiction field the authors focused on advanced level professional social workers because the mission of the new graduate school (where the authors are based) is to serve the state through the profession of social work. To achieve a license, (LCSW), an MSW degree plus two years of post masters supervised clinical experience and successful completion of a Board of Social Work Examiners test is required. The sampling frame was provided by the Montana Department of Labor and Industry, Business Standards Division in the form of a mail list file.

Index of Training Need

The core of the study was the 20 item addiction specific Index of Training Need (ITN) developed by the Harvard Medical School, Division of Addictions, Addiction Training Center of New England, and Brown University (Vander Bilt, Hall & Schaefer, 1997). The ITN's items grew out of a review of the substance abuse treatment clinical literature. ITN item qualitative input came from a series of meetings and focus groups comprised of representatives of addiction treatment centers from several New England states meeting specifically to determine the data needs for the project. The index was originally designed to provide guidance for the allocation of existing training resources for addiction center personnel.

When developed the ITN was tailored to measure both an individual's perceived *adequacy* in a specific conceptual domain and/or *interest* in receiving training in the same domain. Vander Bilt Hall, Schaefer, & Higgins-Biddle (1997) used the index to determine New England addiction treatment clinic provider's adequacy and interest in training. When responded to by 1684 participants, a principal component analysis of interest minus adequacy scores exhibited a final three factor structure measuring the need for training with regards to 1) clinical practice skills, 2) guides and protocols and 3) specialized training.

Vander Bilt, Hall, Schaffer, Storti & Church (1997) report results for the study's sub-sample of nurses and found it very useful for informing plans for future training in that profession. Vander Bilt, Hall &, Schaffer (1997) envisioned the index as "a valuable tool for treatment organizations and educational planners..." (p. 601); the ITN is adaptable and provides a much needed standard. Given the current study's methodology (described below), there was a need to keep the survey brief to insure high response rate; this study employs *only* the Index' questions regarding participants *interest* rating, not *adequacy*.

Data analysis is based on subject responses to the Index's 20 items which were posed in the survey preceded by the statement: "Using the following scale, please indicate you're interest in participating in a training activity, at your current level, in each of the following areas." The scale given was 0 = nointerest, 1 = very little interest, 2 = moderate interest, 3 = considerable interest and 4 =maximum interest. Appendix A lists all questions.

Additional Survey Content

Additional survey items elicited both quantitative and qualitative information on experience levels, self assessed level of preparedness to provide services to clients with addictions and co-occurring mental health and addictions disorders, perception of the adequacy of the MSW degree to prepare them for work with addictions, and the appropriateness of integrating substance abuse knowledge and training into the social work curriculum. Respondents were asked about personal history/experience regarding substance abuse education in the field of social work and if earning an MSW prepared them for working with substance abusing/dependent clients. Specific inquiry was made about respondent opinion as to whether master level social worker students should all be required to take a separate course in addiction and/or if respondents thought that addiction related material should be integrated into all MSW course work. To assist in assessing the strength of opinion as well as practitioner interest, respondents were also asked if adding an emphasis on addiction treatment (9 credit hours of addiction and mental health specific education) to the new MSW program at the University would be a beneficial addition to preparation of social workers for practice in the state.

The study also sought to identify the need and means for further education of current LCSWs in the field of addiction. Participants were asked if they had received any special training in the area of substance abuse since earning their MSW. They were also asked for future continuing education plans concerning substance abuse treatment, and if they planned (within the next year) to receive addiction/substance abuse training. Moreover, the survey examined interest in online continuing education, with a particular focus on the specific addiction related topics outlined in the Index of Training Need.

Survey Procedures

High survey response rates were made possible through the use of The Tailored Design Method (Dillman, 2000) which updates Dillman's previous 1978 work called The Total Design Method. This particular methodology includes a very specific set of empirically supported guidelines for conducting successful self-administered surveys and applies social exchange theory (Blau, 1964) to boost response rates. Dillman indicates that the actions of individuals are motivated by the return these actions are expected to bring. The overall message of all communication to the surveyed social workers was that in return for their participation with the survey they were being given a chance to have direct input into the process of educating new MSW's in their state. They were also being given an opportunity to help determine continuing education offerings at the university.

Mailing followed the five-step Dillman (2000) process with the following alterations. As an incentive Dillman advises the inclusion of a one dollar bill with the survey. Study resources prohibited this. The alternative constituted the inclusion of a colorful dollar bill sized flier with the survey mailing as a token of appreciation. This flyer invited participants to log in to the University's continuing education web-site for a free sample of online training. The second alteration was that follow up phone calls to non respondents were not conducted. All materials and methods were approved by the university's institutional review board.

Results

Descriptive Statistics

76.9 percent of the 382 social workers in the sample responded to the survey (n = 294). The 294 responding LCSWs averaged 17.14 years (SD = 9.77) post masters experience, half of them practicing for longer than 15 years. Of this experience, an average of 12.86 years (SD = 8.7) was specifically in Montana. Of all respondents, 72.1 percent were

female and 26.3 percent were male. Gender was not reported by 1.6 percent. Respondents earned their MSW degree's education in 41 different states. The most heavily represented regions are (in rounded numbers) the Northwest (32 percent), Midwest (23 percent), and the Southwest (19 percent). The Northeast, Southeast, and Mid-South were represented roughly equally with between 7 and 9 percent. Interestingly, none were educated by a Montana program at the graduate level as until recently the state did not have one. Less than one percent were educated outside the United States and 4 percent did not report.

Social workers specializing in addiction comprised 11.0 percent of respondents, though 58.2 percent of all respondents provide addiction services to some extent in their agencies or practices. 62.7 percent Reporting that they often or always come into contact with addicted clients were 62.7 percent while 73.1 percent have had post MSW training in addiction. Also, 62.6 percent agree that a Licensed Addiction Counselor credential or other addiction credential is important when counseling addicted clients with 65.5 percent agreee is important when counseling addicted clients.

Are We Adequately Preparing Social Workers?

Several responses addressed the first research question concerning preparedness. With regards to respondent's MSW education experience adequately preparing them for addictions work, 59.0 percent feel that their MSW training *did not* adequately prepare them for this. Moreover, 81.1 percent perceive that the MSW did not adequately prepare them for work with clients with co-occurring substance abuse/mental health disorders.

Montana's rural social workers expressed an emphatic opinion concerning the preparation of future generations of MSWs for work with addicted clients: 79.8 percent strongly agree and another 16.0 percent somewhat agree that addiction material should be integrated into the MSW curriculum (a total of 95.8 percent agreement). Moreover, there is overwhelming support for requiring a course in addictions for all MSW students; 69.4 percent strongly agree and another 18.7 percent somewhat

agree with this requirement (an 88.1 percent agreement rate).

Regarding workforce adequacy, 82.2 percent perceive that there are not enough qualified addiction treatment providers in Montana and 86.0 percent report a workforce shortage of master's level people to treat co-occurring mental health/substance abuse disorders. 60.9 percent see the development of a 9 credit graduate level concentration in addictions/ mental health at the states new MSW program as a very positive development with another 34.8 percent seeing it as positive (95.7 percent positive perception). 88.6 percent see the development of an online MSW level course in addictions as a very positive or positive development. (As of this writing such a course has been developed and is being offered). An even 50 percent indicated that they were very or somewhat likely to participate in online continuing education regarding addiction if the University offered it; 37.4 percent were very or somewhat likely to receive addiction training in the next year.

Index of Training Need

As an interest measurement scale, the ITN exhibited excellent internal consistency reliability (Chronbach's alpha .94, N=259); this N is somewhat less than the total of respondents due to pairwise deletion: only Indexes with all 20 items accounted for were analyzed. The scale items were subjected to exploratory factor analysis (principal components factor analysis with varimax rotation). While the solution identified 3 factors with eigenvalues > 1accounting for 51.2 percent, 5.8 percent and 5.2 percent of the variance (62.3 percent collectively), 5 individual items either loaded on multiple factors or, using a .50 inclusion criteria (Hall, Schaefer and Vander Bilt, 1997), on none. This is attributed to the fact that the index was used here as a stand alone scale measuring only interest in training, despite its being initially designed for pairing with responses indicating training adequacy. Scale item # 13: 'Interest in developing diagnostic and treatment formulations' proved problematic as only 51 percent of

3.0				
2.5				
2.0		liter Problems		
1.5		Abuse & Ot Shniques Kills & Abuse and tment Form	vement Ski SA Treatme	
1.0		Relationship Between Substance Abuse & Other Problems Screening Instuments and Techniques Assessment and Diagnostic Skills Assessment and Symptoms of Substance Abuse and Withdraw Signs and Symptoms of Substance Abuse and Withdraw Ethicial Issues		Cess Skills
0.5	Dual Dlagnosis Marriage and Family The Intervention Skills Treatment Techniques Treatment Process Skills	Relationship Betwe Screening Instum Assessment and Assessment and Signs and Sympton Signs and Sympton Ethical Issues	Therapy Organization and M Treating Sprcial Populations Training Leading to Credentials i Substance Abuse Concepts Theoretical Models of Substan	Interpersonal Process Skills Referal Skills Detoxification Administration Skills
0.0	Dual Dlag Marriage Interventi Treatmen Treatmen	Relation Science Scien	Theor	Refer Detox

Figure 1: ITN Survey Item Results

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participants responded to it, considerably lower than the 95-98 percent response to other ITN items; this was likely due to its poor placement on the survey instrument that subjects received which was designed specifically for this study. To correct for this one item's disproportionate rate of missing data, the literature on imputation was consulted (Little & Rubin, 2002; Roth & Switzerr III, 1999). Operating within the theoretical guidelines, the missing data was replaced using SPSS Missing Value Analysis function (SPSS, 2004) prior to analysis of the index. Missing data for all other items was not replaced. By repairing this one item, the loss of a substantial amount of other related information through pairwise deletion of variables was prevented.

Figure 1 provides a list and ranked distribution of respondent interest in all 20 ITN assessed areas of training.

The highest areas of expressed training interest/need in the addictions arena are in the areas of working with dual diagnosis clients (e.g., assessment and treatment of co-occurring substance abuse/mental health diagnosed clients), providing marriage and family therapy to members of this population, specific intervention skills (e.g., intervening in life crisis situations, managing drug seeking behavior), and learning specific treatment techniques (e.g., working with ambivalence). Each of these domains had a raw mean score of > 2.5 on the 0-4 point scale. All these reported areas of highest training need are related closely to issues involved in specific treatment modalities used with chemical dependency disorders and associated mental health issues. This group of training needs is closely followed by a group of scores indicating interest in advanced knowledge regarding addictions, assessment skills, and ethics. A third grouping can be found in those areas which score below moderate interest and have to do with basic theoretical knowledge/concepts, as well as practice and administration skills that are generally applicable across practice settings. The specific clustering of responses to the ITN can be used to guide course content development and to direct continuing education to focus on specific advanced clinical knowledge/skills rather than generalized addictions materials.

Discussion

While the sample of practitioners responding to this study can not be construed to be a true representative sample of the national spectrum of graduate level social workers, results compare favorably with national level research regarding social work professional experience levels. The Practice Research Network Survey conducted in fall 2002 (NASW 2003) indicates that the average NASW member has 16 years of experience following the first social work degree, similar to this current study's 17 years. The same survey of the profession also reports that 8 percent of respondents possess a certification in addictions, while at least 92 percent hold some form of state license or certificate relative to practice; the current study has 11 percent specializing in addiction and all having an LCSW from the state. The breadth and depth of practice experience as well as the wide range of states and schools from which this sample draws its education may provide insight as to educational needs across the national arena. This comparison point becomes more critical when one understands the drastic outstanding shortage of addiction professionals reported by chemical dependency agency administrators in the large rural area of this study (Conley 2004) and confirmed by the 294 respondents to this study. On the whole, this study finds that the most experienced practitioners in the profession, widely educated across North America, report both workforce shortages and outstanding educational needs in addictions knowledge and skills.

The strong survey return rate (76.9 percent) of the State's LCSW population indicates clear advanced professional interest in the issue. That 58.2 percent provide services to addicted persons and 62.7 percent have regular contact with addicted persons is indicative of an experienced pool of professionals that would be well served by further education in the addictions arena - education that is needed by social worker students and practitioners alike nationwide.

The is a strong need for addictions related training in both graduate school and post graduate continuing education identified in this study which has geographically wide implications for social work

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education and practice. The high percent of respondents indicating a general need for continuing education and the equally high percent indicating that addictions education should be required in MSW programs provides indication of strong support for addictions education programming for social work schools everywhere. Nonetheless, general knowledge as to support and need is not sufficient for educational planning. More detail is needed. A common complaint regarding general education and continuing educational programming is that curriculum lacks specificity. The inclusion of the ITN in this survey to assess the specifics of expressed need addresses this problem.

The detailed needs identified through the ITN responses inform the educational community as to specific training areas meriting focus within the general addictions arena. This information can be utilized to "fine tune" curriculum planning in both MSW programs and post graduate continuing education. In particular, the most salient of the identified training needs identified through this survey (co-occurring mental health/substance abuse problems, marriage and family therapy in the addictions arena etc.) can serve as specific guidelines for development, thus fine tuning educational forums. Such practice education, properly advertised by educators, should help eliminate complaints that courses or continuing education are not "specific" or "advanced" enough. In sum, this survey makes clear that the need to be knowledgeable in the area of addictions is central to both beginning and advanced professional social work practice and that focused (rather than generalized) educational components are needed.

Agreement with the General Literature

The findings of this study are consistent with the developing direction of the national literature. Addiction has been under discussion for several years as an area of social work curriculum needing improvement. This study's results confirm previous calls for addictions related curriculum infusion and suggest requiring supplemental addictions related course work at the MSW level. Rhodes & Johnson, (1996) indicated that addiction course work should be integrated into curriculum materials so that social workers can learn the basic knowledge in this practice area. Magura (1996) concurs with this approach, advocating for both a greater availability of chemical dependency course offerings in social work graduate education and for social workers currently practicing in addiction related fields to network in an effort to formulate recommendations for program development.

An excellent example of efforts along this line is the collaboration between researchers at the Helen Bader School of Social Welfare's Center for Addiction and Behavioral Health Research and the National Institute for Alcohol Abuse and Alcoholism (NIAAA 2005). This effort resulted in a series of training modules (including sophisticated slides) designed specifically for use as curriculum across diverse social work courses; the modules may also be combined to form elective courses in addictions. Assisting in meeting these educational needs corresponds with the social work mission and role of workforce development

Conclusion

Highly experienced professionals-educated at diverse graduate schools of social work across North America-do not feel prepared by their education to address the needs of addicted clients, particularly those with a co-occurring mental health diagnosis. Study findings regarding this current state of the profession send a serious message to social work education that relates to MSW and continuing education curriculum planning. The current state of the profession also has serious implications regarding social work's responsiveness to the workforce development charges being incurred by many universities across the country; this will be the topic of a related article under draft. This current study finds that social work professional training needs in addictions are high, regardless of the specific work arena of the social worker. Respondents also emphatically encourage teaching all graduate level social workers about addictive disorders. ITN scale results reported here reveal that these same social work professionals report

need for high quality, specifically focused, addictions related continuing education opportunities.

Social work education as a whole is faced with outstanding training needs in the addictions arena. These needs represent a significant opportunity. The opportunities/needs identified in this study can best be met through social work educational institutions dedicated to the ideal of being responsive to community needs. Specific ITN responses reported in this study have dual applicability. They may be drawn upon to inform the details of social work education's responsiveness to the training needs of the practice community while simultaneously contributing to advancing universities' practical usefulness regarding meeting workforce development needs. Such approaches will better position the social work educational community within the professional and university environments to be maximally effective at accomplishing a service mission.

References

- Alaszewski, A., Harrison, L. (1992). Alcohol and social work: A literature review. *British Journal of Social Work*, 22 (3). 331–343.
- Barker, R.L. (2003). *The Social Work Dictionary* (5th ed.). Washington, D.C.,: NASW Press.
- Blau, P. (1964). Exchange and power in social life. Wiley, New York.
- Burke, A.C., & Clapp, J.D. (1997) Ideology and social work practice in substance abuse settings. Social Work, 42 (6), 552–562.
- CEIC, (2004). Census and economic information center: http://ceic.commerce.state.mt.us/staterankings.htm retrieved 12-12-04.
- Conley, T.B. (2004). Unpublished survey of Montana's chemical dependency program directors. University of Montana, timo-thy.conley@umontana.edu.
- Dillman D.A. (2000). Mail and Internet Surveys: The Tailored Design Method. New York, NY: John Wiley & Sons, Inc.
- Fuler, T.M., Wells, S.W. (2003). Predicting maltreatment recurrence among CPS cases with alcohol and other drug involvement. *Children & Youth Services Review*, 25 (7): 553–569. Googins, B. (1984). Avoidance of the alcoholic client. *Social*
- Work, 2: 161–166.
 Grant, B.F., Stinson, F.S., Dawson, D.A., Chou, S.P., Dufor, M.C., Compton, W., Pickering, R.P., Kaplan, K. (2004).
- Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: Results from the national epidemiologic survey on alcohol and related conditions. Archives of General Psychiatry. 61: 807–816.
- Gurley, J.D., Satcher, J.F., (2003). Drug use or abstinence as a function of perceived stressors among federally supervised offenders. *Federal Probation*, 67 (3) (Dec 2003): 49–53.
- Hall, M., Amodeo, M., Shaffer, H.J., & Vander Bilt, J. (2000). Social workers employed in substance abuse treatment agencies: a training needs assessment. *Social Work*, 45, p.141.
- Horton, N.J., Lipsitz, S.R. (2002). Multiple imputation in practice: Comparison of software packages for regression models with missing values. *The American Statistician*, 55 (3) 244–254.
- King, G., & Lorenson, J. (1989). Alcoholism training for social workers. Social Casework: The Journal of Contemporary Social Work, 70 (6) 375–382.
- Little, R.J.A. & Rubin, D.B. (2002). Statistical analysis with missing data. New York, Wiley. 2nd edition.

- Magura, S. (1994). Social workers should be more involved in substance abuse treatment. *National Association of Social Workers*, 19 (1), 3–5.
- NASW (2003). http://www.socialworkers.org/naswprn/surveyTwo/ Datagram2.pdf, URL 1-24-05 from Demographics NASW.
- NIAAA (2005). Social work curriculum on alcohol use disorders. http://www.niaaa.nih.gov/publications/social/maintext.html. URL retrieved from NIAAA web-site 3-31-05

O'Brien, G. M. S. L., Grace, N. E., Williams, E. M., Paradise, L. V., & Gibbs, P. M. (2003). Linking academic strengths to economic development: Seven habits for effective partnership in university-based economic development. *Metropolitan Universities: An International Forum*, 14(1), 35–40. Retrieved February 17, 2005, from ERIC database.

- Rhodes, R., Johnson, A.D. (1996). Social work and substanceabuse treatment: A challenge for the profession. *Families in Society: The Journal of Contemporary Human Services*, 77 (3), 182–185.
- Roth, P.L. and Switzer III, F.S. (1999). Missing Data: Instrument-level heffalumps and item-level woozles. *Research Methods Forum*, 4, Summer 1999.
- SPSS (2004) http://www.spss.com.sg/web/spss/Products/ Spss_MissingValue.asp, Retrieved 12-12-04.
- Sun, A.P., (2001). Systemic barriers to the employment of social workers in alcohol and other drug treatment agencies; A statewide survey. *Journal of Social Work Practice in the Addictions*, 1 (1). 11–24.
- USDA http://www.ers.usda.gov/Data/ Retrieved 12-12-04.
- Vander Bilt, J., Hall, M., Schaffer, H., (1997). Measuring substance abuse treatment for provider training needs: developing an index of training need. *Journal of Substance Abuse Treatment*, 14 (6). 593-606.
- Vander Bilt, J., Hall, M., Schaffer, H., Higgins-Biddle, J. (1997). Assessing substance abuse treatment provider training needs: Screening skills. *Journal of Substance Abuse Treatment*, 14 (2), 163–71.
- Vander Bilt, J., Hall, M., Schaffer, H., Storti, S., Church, O., (1997). An assessment of substance abuse treatment training needs among nurses (part 1): Evaluating skill, knowledge and training characteristics. *Journal of Substance and Misuse.* 2, 150–157.

Appendix A: Index of Training Need*

Following is a series of questions to determine interest in a variety of addiction related training activities. Using the scale, please indicate (to the left of each item) your interest in participating in a training activity in each of the following areas:

0 = no interest 1 = very little interest 2 = moderate interest 3 = considerable interest 4 = maximum interest

- Substance abuse concepts (e.g., denial, poly-substance abuse)
- 2) Theoretical models of substance abuse (e.g., medical model, behavioral model)
- 3) Signs and symptoms of substance abuse and withdrawal (e.g., narcotics withdrawal, methamphetamine withdrawal)
- 4) Relationship between alcohol/substance abuse and other problems (e.g., suicide, AIDS)
- 5) Detoxification (e.g., indications for inpatient detox, management of DT's)
- Marriage and family therapy (e.g., addicted/dependent families)
- 7) Screening instruments and techniques (e.g., MAST, CAGE, AA's 20 questions)
- 8) Assessment and diagnostic skills (e.g., obtaining a history of drug use from the client)
- 9) Treatment process skills (e.g., adapting treatment to the clients cultural background)
- 10) Intervention skills (e.g., intervening in life crisis situations, managing drug seeking behavior)
- 11) Interpersonal process skills (e.g., empathy, genuineness)
- 12) Therapy organization and movement skills (e.g., lead-ins, restatement)
- 13) Developing diagnostic and treatment formulations (e.g., clinical formulations)
- 14) Treatment techniques (e.g., working with ambivalence)
- 15) Referral skills (e.g., making referrals for inpatient hospitalization)
- 16) Treating special populations (e.g., clients with AIDS, clients with special physical needs)
- 17) Training activities that lead to credentials in substance abuse treatment (e.g., LAC, CEU hours)
- 18) Administration skills (e.g., taking case notes, keeping case records)
- ____ 19) Ethical issues
- 20) Dual diagnosis (e.g., assessment and treatment of co-occurring substance abuse/mental health diagnosed clients)

* Harvard Medical School, Division on Addictions; Addiction Training Center of New England, Brown University (1997). Journal of Substance Abuse Treatment, 14 (6).