Colorado Division of Vocational Rehabilitation

Consumer Satisfaction Survey Results for Former Deaf and Hard-of-Hearing Clients

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Colorado Department of Human Services

Submitted February 18, 2008

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by

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Approach #1: Focus Group

Procedure

The research study consisted of conducting focus groups throughout the state of Colorado. The first step was to ask the agency leadership to identify the geographic regions for their expert opinion. Ultimately, the agency leadership identified four major geographic regions within the state of Colorado. The regions include: 1) Northern Colorado, 2) Colorado Springs, 3) the Denver area, and 4) Grand Junction. The research team then contacted former clients residing in the one of the four aforementioned geographic locations. Contact was initiated via mail and electronic mail (e-mail).

Second, the research team utilized the contact data spreadsheet to quantify the number of Deaf/HH clients in the various locations throughout the state. Consistent with the agency leaderships' recommendations, the following groupings emerged from the contact spreadsheet. These numbers are the total number of former Deaf/HH clients that received CDVR services and closed a case within the last four years.

Salida (8), Alamosa (41), Pueblo (74) = 123
Grand Junction (69), Montrose (43), Durango (24) = 136
Denver (863), Golden (94), Aurora (10) = 967
Boulder (59), Northglenn (336) = 395
Edwards (2), Frisco (1), Glenwood Springs (24), Steamboat Springs (21), Craig (19) = 67
Fort Collins (120), Greeley (53), Sterling (20) = 193
Limon (18), Lamar (18), Colorado Springs (237) = 273

The population consisted of former Deaf/HH clients in the state of Colorado who provided an e-mail or mailing address on the contact sheet provided to the principal

investigator on the contact spreadsheet. The former Deaf/HH clients who were invited to participate in the focus group thereby constituted a population.

The project assistant mailed hard copy flyers to former Deaf/HH clients' residences (See Appendix A) and e-mailed flyers (See Appendix B) to clients' whose addresses were in one of the following four geographical study areas: 1) Fort Collins, 2) Colorado Springs, 3) the Denver area, 4) the Boulder area, and 5) Grant Junction. See Table 1 for the total number of flyers and email distributed.

Table 1: Total Flyers and Emails Sent To Deaf/HH Clients

Location	Number of Flyers Mailed	Number of E-mails Sent	Collective Total of Flyers Disseminated
Fort Collins	48	19	67
Colorado Springs area (Pueblo, Monument, Palmer Lake, Woodland Park)	50	116	166
Denver area (Golden, Northglenn, Arvada, Lakewood, Westminster, Broomfield, Aurora)	50	171	221
Boulder area (Broomfield, Longmont, Loveland)	50	67 + 37*	154
Grand Junction area (Aspen, Basalt, Glenwood Springs, Montrose)	50	28	78

** total includes re-invited Northern Colorado people*

The flyer and e-mail contents consisted of a brief explanation of the scope of the study, the restaurant location, the time of the focus group, and the participation incentive (i.e. a complimentary meal). Interested participants responded in the affirmative to the

project assistants via e-mail. None of the participants opted to call utilizing a videophone (VP) or via Text Telephone for the Deaf (TTY)

A total of three focus groups were conducted: 1) Colorado Springs, 2) Denver, and 3) Boulder (see Table 2). Due to a low response rate in the Fort Collins and Grand Junction area, focus groups were not conducted in these locations.

Table 2: Number of Participants in Each Focus Group

Location	Number of Participants	Received e-mail flyer	Received a mailed flyer
Fort Collins*	1	1	0
Colorado Springs (included Pueblo)	4 (1 declined to participate due to videocamera)	5	0
Denver	7	7	3
Boulder	2	1	1
Grand Junction**	1	0	0

** One individual responded affirmatively; however, the focus group was cancelled due to a low response rate.*
*** One individual willing to do VP interview – emailed 3 times for follow up but no response. Therefore, no interview was conducted via VP.*

Focus group participants convened at the restaurant and introduced themselves to the research team. The research team consisted of the Project Director and two bi-lingual, Deaf assistants with experience in conducting focus groups. All participants were then asked for permission to be videotaped using a camcorder. Once permission had been confirmed, one project assistant videotaped the focus group session. A second project assistant recorded notes throughout the session. The principal investigator led the focus group discussion using the following questions:

1. How satisfied are you with how the Colorado Division of Vocational Rehabilitation [CDVR] explained the goal of employment for this program?

2. Are there any parts of your service/experience that you are more satisfied with than others at CDVR?

3. How satisfied are you with your job placement and support service?

4. How satisfied are you that the CDVR did their best to find the right job for you?

5. How satisfied are you with your overall experience with the CDVR?

6. What can CDVR do to improve their services?

Table 3: Focus Group Demographics

	Colorado Springs (included Pueblo)	Denver	Boulder
Gender			
Male	3	3	2
Female	1	4	
Total	4	7	2
Ethnicity			
Caucasian	3	5	2
African American	1	1	0
Hispanic	0	2	0
Age Range			
18-29	0	1	0
30-40	3	4	0
41-50	1	0	1
51-60	0	1	1
61 +	0	1	0
Reason for VR Services*			
Employment Placement Assistance	5	3	1
Assistive Listening Devices	6	1	0
School/Training	0	5	2
Current Employment Status			
Unemployed	2	3	2
Employed Part-Time	1	0	0
Employed Full-Time	1	3	0
Full-Time Student	0	2	0
Retired	0	1	0

*some have more than one reason

Description of the Sample

As can been noted from the above tables, participants responded primarily to the project assistants' inquiries via e-mail rather than mail. The participants consisted of individuals of varying races and ethnicities and ranged in age from 18-65.. The median age was in the 30 - 40 range. The reasons given for receiving CDVR services included: 1) employment placement assistance, 2) to obtain assistance listening devices, and 3) to obtain additional school/training for career advancement purposes.

Results of the Three Focus Groups

The results provide a summary of the focus groups' feedback and suggestions for improvement. For a detailed list of the focus group participants' responses, please refer to Appendix C.

Strengths of VR Counselors:

1. In general, the VR counselors are friendly and easy to communicate with if the counselor is Deaf.
2. VR counselors are supportive of the Deaf/HH of clients' goals.

Recommendations for Improvement:

1. VR counselors need to clearly communicate VR expectations and policies in the Deaf/HH clients' preferred mode of communication.
2. VR counselors need to engage in increased communication with the client regarding the client's progress in the clients' preferred mode of communication.

3. VR counselors need to provide more assistance in job placement for Deaf/HH clients who are trying to initiate a career change.
4. The VR system needs to be restructured so as to allow Deaf/HH clients to enroll in non-traditional courses.

Approach #2: On-line Survey Research

The research team conducted a survey of satisfaction of the consumers with closed cases over the past 3 years.

Research Design

This study utilized an electronic survey research design. A survey design typically allows for the collection of a large amount of data in a short period of time. The population consisted of former Deaf/HH clients residing in Colorado whose e-mail address had been provided to the principal investigator. Due to the fact that the master contact was not current or comprehensive, the study group constituted a convenience sample. The survey study was also cross-sectional in nature; for, the population was comprised of a cross-section of former Deaf/HH clients with varying levels of education, differing years of experience, and a variety of ages. A cross-sectional study surveys one group of participants at one point in time allowing for a range of responses from different groups of respondents.

Survey Used with Former Deaf Clients of CDVR

Nakaji, (2007) conducted a study on RCDs' perception of their supervisor demonstrating supportive supervisor behaviors using a modified version the original Inventory of Supportive Unsupportive Managerial Behaviors (ISUMB) (Rooney, 2004) The measure includes two constructs, "Personal and Esteem Support" (PES) and "Enabling Job Support" (EJS). The first construct, "Personal and Esteem Support," includes behaviors that demonstrate support for employees on a personal level (e.g., asks how they are doing) as well as behaviors that communicate positive feedback related to

self-evaluation (Rooney, 2004). The second construct, "Enabling Job Support" includes assisting employees in fulfilling their work obligations (e.g., providing clarification of work tasks) and encouraging employees to be more creative and autonomous with regard to their position (Rooney, 2004).

In the modified ISUMB, Nakaji (2007) made linguistic and cultural modifications for the target population. Most self-report instruments have been developed and tested in English with people who hear and whose first language is English. To be used with confidence in diverse communities, (e.g., Deaf community) such instruments must first be translated into the languages utilized by these communities and occasionally transliterated in order to achieve parallel, cross-cultural equivalency (Bravo, 2003). In past studies, the Deaf community has reported that optimal communication could be achieved in the event that materials were culturally and linguistically aligned (Kaskowitz, Nakaji, Clark, Gunsauls & Sadler, 2006; Sadler et al., 2001, Steinberg, Lipton, Eckhard, Goldstein, & Sullivan, 1998)

The modified ISUMB was determined to be a reliable tool for both Deaf and hearing RCDs. The linguistic modifications made to the survey resulted in a survey that was easier to read for all participants. Complex words such as "let," "give," "make," and "grow" were replaced with conversational ASL words to aid in the participants' ability to comprehend the questions. Additional modifications included ensuring each item requested information about one topic as opposed to multiple topics, and writing statements in a clear and concise manner. The modifications resulted in a total of 28 items on the survey used in this study. A 7-point Likert scale (*Very Strongly Disagree*,

Strongly Disagree, *Disagree*, *Indifferent*, *Agree*, *Strongly Agree*, and *Very Strongly Agree*) was also utilized to conduct the survey.

ISUMB Survey for Deaf/HH Consumers

The purpose of the study was to assess Deaf/HH consumers' satisfaction with regard to VR services. Satisfaction of services is based on the clients' perception of the VR counselors' ability to demonstrate supportive behaviors. Minor linguistic modifications were made to reflect the purpose of the research study; for example, the word "supervisor" was replaced with "VR counselor." Additional slight modifications reflect the difference in tasks with regard to the client. For example, "work" was replaced with "work goals." The PES construct contained 14 items, the EJS contained 13 items and an additional question inquired about the clients' overall satisfaction with services was added. One item from the original ISUMB (Rooney, 2004), was omitted from the PES scale (e.g., thanks me for the things that I do). Additionally, one item was added to the EJS scale (i.e. my VR counselor keeps me up to date on new information) in order to reflect the purpose of this study. We used the same Likert scale mentioned above. Finally, one additional question inquired about the participants' self-described cultural identity (i.e. Deaf or hard-of-hearing).

Procedure:

The research associates sent an electronic message to all former Deaf/HH clients (See Appendix D). The email briefly described the study's aims and also included a summary of the project's activities. At the bottom of the email, direct link to the survey was provided. Once the aforementioned link was activated, participants were

automatically transferred to the survey (See Appendix E). The welcome page appeared on the initial screen, explained the survey, and provided information on implied consent.

Results of the ISUMB Survey:

A total of 572 emails were successfully delivered to the accounts and a total of 163 were undeliverable emails. A total of 61 completed surveys were submitted on-line. Thus, the response rate was relatively low (9.37%) for former Deaf/HH clients. More hard-of-hearing participants completed the survey (61.4%) than Deaf participants (38.6%). This is not surprising: Deaf people generally prefer to communicate face-to-face using direct communication. English is a second-language for most Deaf people, thereby making survey completion a more arduous task than for HH individuals. Conversely, hard-of-hearing individuals prefer to express their opinion in written English or one-on-one in via speaking and lip-reading. The project assistants reported that prospective participants possibly withdrew from the survey. Several individuals felt that items on the survey did not pertain to their concerns or experience. The responses may contain bias or misrepresent their levels of satisfaction with their CDVR counselors even though extra money was spent to ensure anonymity of all responses.

The overall response rate for the ISUMB survey administered do former Deaf/HH clients is consistent with a Customer Satisfaction Survey conducted in Colorado in 2003: 17% for consumers who were successfully placed and 11% for those who were not placed. Due to the fact that surveys with higher response rates are more likely to produce reliable findings, the results of these findings are interpreted cautiously.

Self-Described Cultural Identity

Which group do you identify with?		
Answer Options	Response Percent	Response Count
Culturally Deaf	38.6%	22
Hard of hearing	61.4%	35
answered question		57
skipped question		4

Overall Satisfaction with VR Services

I am satisfied with the services I received.		
Answer Options	Response Percent	Response Count
Very strongly disagree	5.4%	3
Strongly disagree	7.1%	4
Disagree	7.1%	4
Not Sure	8.9%	5
Agree	21.4%	12
Strongly agree	14.3%	8
Very strongly agree	35.7%	20
answered question		56
skipped question		5

Personal Esteem Support

This construct includes behaviors supporting employees on a personal level.

My VR counselor listens to me.		
Answer Options	Response Percent	Response Count
Very strongly disagree	8.3%	5
Strongly disagree	3.3%	2
Disagree	5.0%	3
Not Sure	11.7%	7
Agree	15.0%	9
Strongly agree	28.3%	17
Very strongly agree	28.3%	17
answered question		60
skipped question		1

My VR counselor is happy to see me.		
Answer Options	Response Percent	Response Count
Very strongly disagree	6.7%	4
Strongly disagree	0.0%	0
Disagree	3.3%	2
Not Sure	23.3%	14
Agree	23.3%	14
Strongly agree	25.0%	15
Very strongly agree	18.3%	11
answered question		60
skipped question		1

My VR counselor is interested in me as a person.		
Answer Options	Response Percent	Response Count
Very strongly disagree	11.7%	7
Strongly disagree	1.7%	1
Disagree	5.0%	3
Not Sure	16.7%	10
Agree	23.3%	14
Strongly agree	23.3%	14
Very strongly agree	18.3%	11
answered question		60
skipped question		1

My VR counselor will speak up for me when necessary.		
Answer Options	Response Percent	Response Count
Very strongly disagree	8.3%	5
Strongly disagree	3.3%	2
Disagree	1.7%	1
Not Sure	31.7%	19
Agree	25.0%	15
Strongly agree	11.7%	7
Very strongly agree	18.3%	11
answered question		60
skipped question		1

My VR counselor asks me about my work goals.		
Answer Options	Response Percent	Response Count
Very strongly disagree	5.0%	3
Strongly disagree	1.7%	1
Disagree	3.3%	2
Not Sure	5.0%	3
Agree	35.0%	21
Strongly agree	30.0%	18
Very strongly agree	20.0%	12
answered question		60
skipped question		1

My VR counselor asks me about how I'm doing with my work goals.		
Answer Options	Response Percent	Response Count
Very strongly disagree	10.0%	6
Strongly disagree	1.7%	1
Disagree	10.0%	6
Not Sure	15.0%	9
Agree	26.7%	16
Strongly agree	20.0%	12
Very strongly agree	16.7%	10
answered question		60
skipped question		1

My VR counselor gives me positive feedback.		
Answer Options	Response Percent	Response Count
Very strongly disagree	10.0%	6
Strongly disagree	3.3%	2
Disagree	3.3%	2
Not Sure	15.0%	9
Agree	26.7%	16
Strongly agree	15.0%	9
Very strongly agree	26.7%	16
answered question		60
skipped question		1

My VR counselor says good things about me to other people.		
Answer Options	Response Percent	Response Count
Very strongly disagree	5.2%	3
Strongly disagree	0.0%	0
Disagree	1.7%	1
Not Sure	62.1%	36
Agree	13.8%	8
Strongly agree	5.2%	3
Very strongly agree	12.1%	7
answered question		58
skipped question		3

My VR counselor makes positive suggestions on how to improve my skills.		
Answer Options	Response Percent	Response Count
Very strongly disagree	5.2%	3
Strongly disagree	3.4%	2
Disagree	8.6%	5
Not Sure	34.5%	20
Agree	25.9%	15
Strongly agree	12.1%	7
Very strongly agree	10.3%	6
answered question		58
skipped question		3

My VR counselor supports my decisions.		
Answer Options	Response Percent	Response Count
Very strongly disagree	3.4%	2
Strongly disagree	3.4%	2
Disagree	3.4%	2
Not Sure	20.7%	12
Agree	31.0%	18
Strongly agree	13.8%	8
Very strongly agree	24.1%	14
answered question		58
skipped question		3

My VR counselor encourages me to work on my professional growth.		
Answer Options	Response Percent	Response Count
Very strongly disagree	5.2%	3
Strongly disagree	1.7%	1
Disagree	8.6%	5
Not Sure	24.1%	14
Agree	25.9%	15
Strongly agree	10.3%	6
Very strongly agree	24.1%	14
answered question		58
skipped question		3

My VR counselor makes me feel like my case is important.		
Answer Options	Response Percent	Response Count
Very strongly disagree	7.0%	4
Strongly disagree	1.8%	1
Disagree	8.8%	5
Not Sure	17.5%	10
Agree	26.3%	15
Strongly agree	14.0%	8
Very strongly agree	24.6%	14
answered question		57
skipped question		4

My VR counselor knows I need a good job.		
Answer Options	Response Percent	Response Count
Very strongly disagree	3.5%	2
Strongly disagree	1.8%	1
Disagree	5.3%	3
Not Sure	24.6%	14
Agree	22.8%	13
Strongly agree	21.1%	12
Very strongly agree	21.1%	12
answered question		57
skipped question		4

My VR counselor wants me to share my opinions.		
Answer Options	Response Percent	Response Count
Very strongly disagree	5.3%	3
Strongly disagree	3.5%	2
Disagree	5.3%	3
Not Sure	21.1%	12
Agree	31.6%	18
Strongly agree	7.0%	4
Very strongly agree	26.3%	15
answered question		57
skipped question		4

Enabling Job Support

This construct includes behaviors that address the VR counselor's ability to provide clarification of clients' tasks and encouraging clients to be more creative and autonomous.

My VR counselor keeps me up to date on new information.		
Answer Options	Response Percent	Response Count
Very strongly disagree	10.0%	6
Strongly disagree	8.3%	5
Disagree	6.7%	4
Not Sure	25.0%	15
Agree	26.7%	16
Strongly agree	15.0%	9
Very strongly agree	8.3%	5
answered question		60
skipped question		1

My VR counselor communicates directly to me.		
Answer Options	Response Percent	Response Count
Very strongly disagree	6.7%	4
Strongly disagree	1.7%	1
Disagree	5.0%	3
Not Sure	6.7%	4
Agree	28.3%	17
Strongly agree	28.3%	17
Very strongly agree	23.3%	14
answered question		60
skipped question		1

My VR counselor explains his/her decision making process.		
Answer Options	Response Percent	Response Count
Very strongly disagree	6.7%	4
Strongly disagree	3.3%	2
Disagree	1.7%	1
Not Sure	15.0%	9
Agree	31.7%	19
Strongly agree	28.3%	17
Very strongly agree	13.3%	8
answered question		60
skipped question		1

My VR counselor is easy for me to work with.		
Answer Options	Response Percent	Response Count
Very strongly disagree	6.7%	4
Strongly disagree	5.0%	3
Disagree	10.0%	6
Not Sure	10.0%	6
Agree	21.7%	13
Strongly agree	20.0%	12
Very strongly agree	26.7%	16
answered question		60
skipped question		1

My VR counselor lets me decide my own work goals.		
Answer Options	Response Percent	Response Count
Very strongly disagree	6.7%	4
Strongly disagree	3.3%	2
Disagree	3.3%	2
Not Sure	15.0%	9
Agree	26.7%	16
Strongly agree	18.3%	11
Very strongly agree	26.7%	16
answered question		60
skipped question		1

My VR counselor approved the services I needed to get a job.		
Answer Options	Response Percent	Response Count
Very strongly disagree	6.9%	4
Strongly disagree	1.7%	1
Disagree	6.9%	4
Not Sure	19.0%	11
Agree	19.0%	11
Strongly agree	17.2%	10
Very strongly agree	29.3%	17
answered question		58
skipped question		3

My VR counselor helped me find a job that I wanted.		
Answer Options	Response Percent	Response Count
Very strongly disagree	12.1%	7
Strongly disagree	0.0%	0
Disagree	13.8%	8
Not Sure	36.2%	21
Agree	13.8%	8
Strongly agree	5.2%	3
Very strongly agree	19.0%	11
answered question		58
skipped question		3

My VR counselor works together with me.		
Answer Options	Response Percent	Response Count
Very strongly disagree	6.9%	4
Strongly disagree	3.4%	2
Disagree	6.9%	4
Not Sure	10.3%	6
Agree	31.0%	18
Strongly agree	20.7%	12
Very strongly agree	20.7%	12
answered question		58
skipped question		3

My VR counselor gives me clear directions.		
Answer Options	Response Percent	Response Count
Very strongly disagree	5.2%	3
Strongly disagree	1.7%	1
Disagree	8.6%	5
Not Sure	17.2%	10
Agree	32.8%	19
Strongly agree	10.3%	6
Very strongly agree	24.1%	14
answered question		58
skipped question		3

My VR counselor answers my questions promptly.		
Answer Options	Response Percent	Response Count
Very strongly disagree	5.2%	3
Strongly disagree	0.0%	0
Disagree	10.3%	6
Not Sure	8.6%	5
Agree	34.5%	20
Strongly agree	19.0%	11
Very strongly agree	22.4%	13
answered question		58
skipped question		3

My VR counselor makes sure I have enough work skills.		
Answer Options	Response Percent	Response Count
Very strongly disagree	5.2%	3
Strongly disagree	3.4%	2
Disagree	3.4%	2
Not Sure	37.9%	22
Agree	25.9%	15
Strongly agree	10.3%	6
Very strongly agree	13.8%	8
answered question		58
skipped question		3

My VR counselor provides me with clear work goals.		
Answer Options	Response Percent	Response Count
Very strongly disagree	5.4%	3
Strongly disagree	3.6%	2
Disagree	3.6%	2
Not Sure	32.1%	18
Agree	28.6%	16
Strongly agree	12.5%	7
Very strongly agree	14.3%	8
answered question		56
skipped question		5

My VR counselor makes sure I have skills before starting a job.		
Answer Options	Response Percent	Response Count
Very strongly disagree	5.3%	3
Strongly disagree	1.8%	1
Disagree	10.5%	6
Not Sure	31.6%	18
Agree	22.8%	13
Strongly agree	12.3%	7
Very strongly agree	15.8%	9
answered question		57
skipped question		4

Conclusions

According to the results of the on-line survey, Deaf and HH participants reported feeling satisfied with their VR counselor. Upon closer examination of the responses, differences emerged in satisfaction levels between HH and Deaf participants.

Hard-of-hearing clients reported feeling more satisfied with the services they received than Deaf clients.

The comments in the open-ended items reveal that HH clients' RCDs were supportive, likeable, skilled/knowledgeable and communicated clearly (See Appendix).

On the PES subscale, over 63% of the participants indicated *Agree*, *Strongly Agree*, and *Very Strongly Agree* on 11 of the 14 items including: (a) is happy to see me, (b) is interested in me as a person, (c) asks me about my work goals, (d) asks me about how I'm doing with my work goals, (e) gives me positive feedback, (f) supports my decisions, (g) encourages me to work on my professional growth, (h) makes me feel like my case is important, (i) knows that I need a good job, and (j) wants me to share my opinions. Upon closer examination of these items, the participants feel that their VR counselor supports clients on a personal level. Agreement with these items corroborates the open-ended comments made by the HH participants.

On the EJS subscale, over 65% of the participants indicated *Agree*, *Strongly Agree*, and *Very Strongly Agree* on 8 of the 13 items including: (a) communicates directly to me, (b) explains his/her decision making process, (c) is easy for me to work with, (d) lets me decide my own work goals, (e) approved the services I needed to get a job, (f) works together with me, (g) gives me clear directions, (h) answers my questions promptly. Agreement indicated in these items are consistent with the open-ended comments provided by the HH participants.

<u>Deaf clients reported feeling more dissatisfied with the services received than HH clients.</u>

The comments in the open-ended questions reveal that Deaf clients' RCD did not provide a clear and effective explanation of VR services and expectations, nor was the

RCD skilled in ASL. Finally, the RCD was described as inconsistent with regard to providing services to Deaf clients.

Upon inspection of all percentages from the unsure and disagree statements on the Likert scale (i.e., *Unsure, Disagree, Strongly Disagree,* and *Very Strongly Disagree*), the results indicated that the participants felt unsure or not supported on 3 out of 14 items on the PES and 5 out of 13 on the EJS. On the PES subscale, at least 31% felt unsure and at least 6.9% disagreed with (a) says good things about me (not sure, 61%; disagree, 6.9%), (b) will speak up for me when necessary (not sure, 31.7%, disagree, 13.3%), (c) makes suggestions on how to improve my skills (not sure, 34.5%; disagree, 17.2%). These results reveal that the participants are not clear on the RCDs' opinion of the client. In order to achieve effective counselor/client relationships, it is critical to note that clients must trust that their RCD will provide honest feedback, engage in open dialogue and advocate for clients on their behalf. On the EJS subscale, at least 12% disagreed and 25% felt unsure about the following items: (a) keeps me up-to-date on new information (not sure, 25%; disagree, 25%), (b) helped me find a job that I wanted (not sure, 36.2%; disagree, 25.9%), (c) makes sure I have enough work skills (not sure, 37.9%; disagree, 12%), (d) provides me with clear work goals (not sure, 32.1%; disagree, 12.6%), (e) makes sure I have skills before starting a job. The findings reveal that the participants felt that their RCD did not communicate new case-related information to the client that may have assisted in a greater awareness of the clients' strengths and weaknesses. As a result, the clients were not satisfied with the job placement and did not feel confident that they possessed the requisite work skills.

Approach #3: Key Informant Interviews

The research team acquired a roster of prospective participants for the key informant interviews in the SRC and CDVR. A draft invitation letter was e-mailed to prospective participants and interviews were conducted only with those who responded. Of the eight individuals who received an e-mail invitation from a member of the research team, six replied and opted to participate. The project director then requested that the key informants to employ "word-of-mouth" advertising and encourage other prospective informants to participate. The interviews consisted of a videophone conversation as well as a written e-mail. In order to protect the key informant's identity, pseudonyms are used and the information is summarized (See Appendix I for responses)

Summary of the 3 Approaches

The three approaches reveal that Deaf consumers are more dissatisfied with the CDVR services in comparison to Hard-of-Hearing consumers. The survey response rate was low; therefore, the results are interpreted with caution. The data from the survey and the information from the focus groups are combined in order to produce richer data and a more accurate representation of the Deaf and HH consumers. The data also reveal that Deaf consumers typically necessitate direct communication (i.e. ASL) in order to achieve optimal understanding of their expectations, potential employment opportunities, and CDVR policies. The information can be relayed in-person using ASL or via videophone in ASL.

Comparatively speaking, hard-of-hearing clients are able to navigate the CDVR system and hearing world with less difficulty than Deaf clients. The self-identified "hard-of-hearing" individuals use speaking and lip-reading as their primary mode of communication. This population needs less job placement assistance and increased assistance receiving assistive listening devices.

In the subsequent section, recommendations are made based on the quantitative (i.e. survey) and qualitative data (i.e. focus group and key informant interviews).

Recommendations

1. Hire additional CDVR counselors fluent in ASL

Deaf consumers a complained that communication was often ineffective between the counselor and Deaf client. Deaf consumers also expressed their preference to work with a Deaf counselor.

2. Publicize CDVR services through media outlets and other visual communication mediums (i.e. the Internet, videologs)

Deaf consumers are relying more on visual technology to obtain current information. Use of videologs and videophone maximizes comprehension of a message in the Deaf consumers' native language (ASL).

3. Hire qualified and certified ASL interpreters for interviews, meetings and job coaching sessions to ensure effective communication between the Deaf client and hearing person

Interpreters need to be hired to interpret from English to ASL and not to interpret and serve as a job coach. Low-functioning Deaf consumers report feeling confused when an interpreter serves as an interpreter and as a job coach. Further, hiring an inexperienced or unqualified interpreter may result in more misunderstandings between the hearing person and Deaf client than if a qualified and certified interpreter were hired.

4. Create a DVD signed in ASL with open-caption and voice-overlay that explains the CDVR system, its policies, and consumer expectations

The DVD can be distributed to the Deaf client via mail and/or posted on the CDVR website, Coloradodeaf.com and other websites of interest to the Deaf community. Creation of a DVD is cost-effective; the DVD will save counselors time and reduce paperwork.

5. Educate vendors such as psychologist and counselors about a series of psychometric instruments that have been translated, validated and normed for the Deaf community

Virtually no standardized psychosocial instruments have been validated for use with members of the Deaf community. Most of the standardized health assessment instruments that are widely used to address health disparities have been developed and tested in English with people with a normal range of hearing, with or without assistive hearing devices. However, Deaf persons whose first or only language is ASL may be unable to complete English language-based instruments, or may encounter cultural and linguistic barriers in the interpretation of certain idioms and phrases commonly understood by hearing counterparts (e.g., “goes to bat for me” or “I feel blue”) (Kaskowitz et al., 2006; Nakaji, 2007). The culturally biased items in standardized instruments, coupled with a Deaf person's linguistic challenges, may differentially affect the interpretation of items (Nakaji, et al, 2007).

Psychometric Instruments Translated into ASL

The University of California of San Diego’s research team at the Rebecca and John Moores Cancer Center has translated, validated and normed four psychometric instruments for people whose primary language is ASL:

1) The Multidimensional Health Locus of Control (MHLC), a self-report instrument that measures respondents’ beliefs regarding the control of their health;
2) The Center of Epidemiological Studies Depression (CES-D), a psychometric instrument used to measure depression;

3) The Short Form-12® (SF-12®) Health Survey (version 2), a widely used measure of health-related quality of life; and

4) The Test of Functional health Literacy (TOFHLA), an instrument used to assess health literacy.

For these instruments to be used with confidence with the Deaf community, they must first be translated into ASL. Each instrument was forward and back-translated into ASL with bilingual, bicultural members of the the Deaf community. The final ASL translation of each instrument was videotaped to assure consistent administration of the MHLC, CES-D, SF-12, and TOFHLA.

Editing and Filming the Psychometric Instruments into ASL

In producing the final Psychometric Instruments/ASL, the focus groups reinforced the need to follow proper ASL protocol. ASL protocol requires that the signer use signs that are free of colloquialism, wear a solid, dark colored garment, and stand in front of a solid background. Before each item was signed, the number of the item that was about to be signed was shown on a black screen. Participants could then be told that the number of the item on the screen would coincide with the number on answer sheet they had been given. The answer sheet contains English statements and numbered places where the participant can circle their numeric response to each item. After displaying the number, the signer appeared and signed the item. A blank screen then appeared for 10 seconds and a signer signed the item a second time. Then an additional 10 seconds between items provided the Deaf respondents with sufficient time to reply by circling the correct numeric answer on their answer sheet. By having this designated time interval between

items, the delivery in ASL does not need to be stopped and restarted for each item. Thus, the full twenty-minute instrument can be played from start to finish without interruption unless a participant requests to view an item again.

Accessing Psychometric Instruments

The products of this translation were tested to determine if they are reliable and valid for use in the Deaf community (Guyatt, 1993; Lee, Farran, Tripp-Reimer, & Sadler, 2003). Members of the research team at UCSD are currently submitting manuscripts to scholarly health journals on the reliability and validity information for each of these instruments.

The psychometric instruments will be available for use in the near future either through UCSD or through a company that owns the psychometric instrument. For example, Quality Metrics owns SF-12 and may charge a nominal fee for using their instrument with Deaf clients. Once the results of each of the psychometric instruments are published in a journal, they will be available for counselors, psychologist and other health professionals to access. The State Coordinator for the Deaf can educate the Rehabilitation Counselors for the Deaf (RCD) in Colorado about these ASL-translated psychometric instruments. In June 2007, RCDs can contact either Dr. Georgia Sadler, the principal investigator of this grant project or Dr. Melanie Nakaji, who is a member of the research team, and inquire about the availability of the instruments.

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6. Create Independent Living Centers for the Deaf

CDVR would create 10 Independent Living Centers for the Deaf in the state of Colorado. The IL Centers for the Deaf (ILCD) would provide services, education, and advocacy to promote Deaf clients' quest for greater independence and a sense of autonomy in order to ensure a successful job placement. One of the centers can be a partnership with the Independent Living Specialist between CDVR and Denver Center for Independent Living, however, the staff at the center must be fluent in ASL and accessible to Deaf clients.

The ILCD would be communication-accessible for all Deaf clients and Deaf staff members. Each of these centers would hire at least 50% Deaf staff with experience in service delivery for Deaf clients. The remainder of the staff must demonstrate fluency in ASL and knowledge and understanding in Deaf culture issues. Staff would communicate with clients using direct communication through the use of videophone, instant messaging, TTY, and in-person appointments.

ILCD would also launch a Deaf-friendly website using v-logs and visual graphics to ensure easy navigation. Important time-sensitive news, such as deadlines for completing a new VR application or an upcoming workshop on resume skill development, would be signed in ASL and mounted on the ILCD homepage. This mechanism would empower clients to take a proactive approach to improving their services while VR counselors have an effective outlet to communicate essential information to their clients.

The ILCD would provide the following services: 1) Adult literacy classes, 2) Health services, 3) Information/Education, and 4) In-house resources.

Adult Literacy Classes

This program would replicate the Adult Literacy Program at Deaf Community Services in San Diego, California. Former clients of the literacy program have either completed their AA degree or BA degree, or obtained gainful employment.

The instructors at the ILCD would employ the bilingual-bicultural approach. For optimal communication and understanding, all the information would be taught in ASL and in printed English. Clients would attend classes between 3 to 6 hours a day for 6 months to 3 years, depending on skill level.

The literacy program is tailored for Deaf clients whose literacy and math skill level is below the 3rd grade level. Typically Deaf clients are unable to enroll in community college courses, advance in their career or are immigrants from non-English speaking countries. If the client meets the criteria for eligibility, he/she meets with a staff member for an initial intake interview. The staff completes an educational and vocational assessment to determine communication skills, assess vocational interests and level of career exploration, determine potential reading and math barriers, and make individualized recommendations for progress.

The literacy class focuses on job-readiness skills. Clients learn basic communication skills and the "soft" skills needed for everyday life, the workplace, and living independently. Second, clients learn basic English skills needed for the workplace: 1) reading and writing, 2) appropriate grammar, 3) vocabulary development, and 4) questions and answers, commands, directions and statements. Third, clients learn

essential math skills, such as addition and subtraction, personal budgeting and time, money and measurement concepts. Fourth, clients learn how to use the computer, word and excel documents, send and receive e-mails, and browse the Internet. Fifth, with the assistance of the staff, clients engage in the employment preparation process. Clients complete job applications, practice mock job interviews, learn the differences between Deaf culture and hearing culture conduct in the workplace and time management.

Health Services

The ILCD would provide a Deaf mental health staff member fluent in ASL and an expert in the area of deafness and mental health. This position would be funded by CDVR or create a partnership with the MHCD in Denver. Research has demonstrated the link between personal health and well-being and success on the job. It is essential to provide ongoing counseling for Deaf clients who are anxious, depressed, lonely, have low self-esteem, marital problems, and/or other issues related to being Deaf and living in the hearing world. A list of problems that counselors and advocates may address with Deaf clients include: learn how to live independently, help with finding housing and managing rent, dealing with conflicts at work, government agencies or services, concerns about disability discrimination, assistance with social security, medical issues, and completing official forms.

Information and Education

The ILCD serves to provide information about deaf-friendly services, deafness issues, and public events to Deaf clients. The information is disseminated through direct communication, the use of flyers, e-mail newsletters, vlogs, and word-of-mouth.

Community education forums educate the Deaf community about a variety of health, workplace, and deafness topics designed to empower Deaf clients. For example, workshops can include the following, "How to talk with your Boss", "Learn How to Network in your Workplace", "Want to Feel Good? Learn about The Food Pyramid", and "Get Your Co-workers to Learn ASL."

In-House Resources

The ILCD serves as a resource for Deaf clients. Deaf clients may check-out deafness-related and job-readiness skills books and/or rent educational videos from the lending library. Or, use the Internet, TTY machines, Videophones, and Video relay service (VRS) for free of charge. Staff will assist clients in ordering assistive devices and specialty books and videos.

Directions for Future Research

1. Categorize and analyze responses to the survey questions according to the individuals' self-described cultural identity.
2. Include current CDVR consumers and compare their experiences with past clients.
3. Enhance the tracking system for contacting Deaf/HH clients via e-mail.
4. Budget more money for interviews to be conducted with a variety of clients via videophone.
5. Quantitatively and qualitatively assess the ASL interpreters' ASL expressive and receptive skills.
6. Conduct a key informant focus group and compare the results with the Deaf/HH focus group.

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