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A Needs Assessment of Extension Staff to Implement Inclusive Programming for Adults with Intellectual/Developmental Disabilities

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Abstract. This study is a needs assessment of Extension staff in the state of Iowa to implement inclusive programming for individuals with intellectual and developmental disabilities (IDD). Electronic surveys were completed by Extension staff on their attitudes and beliefs toward people with IDD, inclusive programming, and training needs. Results showed that Extension staff had positive views, but that staff reporting personal experience with people with IDD had more positive attitudes and beliefs ($p < .05$). The greatest training need was instructional techniques. The study highlights the importance of direct experience in addition to knowledge-based workshops for training Extension staff to implement inclusive programming.

Iowa State University Extension and Outreach has implemented two programs, both administered by the U.S. Department of Agriculture (USDA), designed to make healthy choices easier for Americans with low incomes. The Supplemental Nutrition Assistance Program—Education (SNAP-Ed), funded by the USDA Food and Nutrition Service, is a nationwide program delivered alongside the Supplemental Nutrition Assistance Program (SNAP). Formerly known as food stamps, SNAP is the nation's food-security safety net, providing funds for eligible Americans to purchase food. SNAP-Ed aims to make healthy choices easier through direct education opportunities as well as interventions to create health-promoting policies, systems, and environments (Blitstein et al., 2016). SNAP-Ed funds are available to all states and territories of the United States, and programs are implemented by universities, nonprofits, tribal organizations, public health agencies, and others to maximize reach to priority audiences. The Expanded Food and Nutrition Education Program (EFNEP), funded by the National Institute for Food and Agriculture helps families build knowledge and practice skills related to nutrition, physical activity, food safety, and food resource management (National Institute for Food and Agriculture, n.d.). Peer educators in local communities facilitate direct education opportunities to accomplish this mission. SNAP-Ed and EFNEP prioritize use of research or evidence-based curricula and strategies to ensure the most effective and cost-efficient programs (Wessman et al., 2001). Land-grant universities across the United States and territories deliver EFNEP.

EFNEP and SNAP-Ed prioritize service to Iowans with low income. Iowans with disabilities are more likely to have low income than those without disabilities. In 2019, the median annual income for Iowans ages 16 and over with disabilities was \$20,419, compared to \$36,810 for those without disabilities. Additionally, the poverty rate for Iowans with disabilities was 19.7%, while the rate for those without disabilities was 11.2% (State Library of Iowa, 2020). Given these marked statistics, our team in Iowa State University Extension and Outreach sought opportunities to improve connections and service for EFNEP and SNAP-Ed programs to this audience and to identify opportunities for staff training to ensure that program offerings were accessible, relevant, and engaging. As we had a history of requests for educational programs that would meet the needs of individuals with intellectual and developmental disabilities (IDDs), we decided to focus our attention and efforts to determine how we might best meet the needs of this specific population of Iowans.

Nutrition interventions can be effective for improving health outcomes among adults with IDDs (e.g., Hunt & Stiller, 2017; Ptomey et al., 2018), but programs have been limited by the lack of scale beyond the research institution. Local educators delivering Extension services may be a viable route to expand access to nutrition programming for this population. However, it is critical that Extension staff be properly prepared to assume this responsibility. Previous research, specific to Extension and Outreach, has indicated that Extension educators consistently have positive views toward inclusive programming but also express concerns about their lack of

knowledge and/or need for training to serve people with disabilities properly (Anderson et al., 2021; Boone et al., 2006; Brill, 2010; Ingram, 1999; LaVergne, 2013; Mouton & Bruce, 2013; Peterson et al., 2012; Taylor-Winney et al., 2019). Recent professional development materials—most notably, the Developmental Disabilities Training Series offered through Colorado State University (Keywood & Brill, 2021)—have been developed to help Extension staff gain these required skills. At Iowa State University, we are attempting to build on these previous efforts and achieve our goals of creating opportunities to improve connections and services for individuals with disabilities. To actualize these efforts, Iowa State University Extension and Outreach leadership of SNAP-Ed and EFNEP procured relevant expertise and leadership by engaging a Human Sciences Extension and Outreach Faculty Fellow.

The faculty fellowship is designed to encourage Iowa State University's College of Human Sciences faculty without Extension appointments to partner with Extension staff to create, implement, and evaluate engaged scholarship projects that translate research into practice and benefit Iowans. The fellowship occurs across one summer, typically May through August, and includes salary and benefits for a half-time position for the faculty member as well as a budget to support the work. Fellowships are offered to specific faculty members by the director of Human Sciences Extension and Outreach, based upon the needs of the unit and current work underway. The faculty member must receive approval from their department chair, submit a scope of work, and sign an agreement that outlines assignment and use related to intellectual property rights.

The faculty fellowship was provided in 2019 to an assistant professor within the Department of Kinesiology at Iowa State University's College of Human Sciences. Through the fellowship, our assembled team envisioned a mutually beneficial project to develop an adapted SNAP-Ed program for delivery to adults with IDD in Iowa. We determined that it was critical to first understand the attitudes and beliefs of our Extension staff. Additionally, we were interested in the opinions of leadership from local agencies specializing in services for Iowans with IDDs on the type of training our staff needed before initiating direct education to these individuals. Thus, the purpose of this study was to conduct a needs assessment for current Iowa State University Human Sciences Extension and Outreach staff related to providing Extension education for persons with IDDs.

METHODS

PROCEDURES

A series of electronic surveys was distributed via Qualtrics. First, individuals affiliated with Human Sciences Extension and Outreach at Iowa State University, including assistants, specialists, and coordinators from campus and county offices

(henceforth referred to as "Extension staff"), were invited to participate in a survey on attitudes and beliefs about individuals with IDDs and training needs to serve this population. A two-stage recruitment was used, with an initial email and then a follow-up email 2 weeks later to nonrespondents. In total, 149 Extension staff were contacted, and 64 participated in the survey. Seven surveys were removed from analyses due to incomplete data ($N = 57$; 38.25% response rate). Second, service providers for individuals with IDDs from the state of Iowa were invited to participate in a survey about training needs for Extension staff to serve individuals with IDDs. We compiled a list of 312 email addresses of service providers from an Internet search. Via a two-stage recruitment process, all service providers were initially contacted by email, and a follow-up email was sent 2 weeks later to nonrespondents. In total, 35 service providers consented to the study and started the survey. Only 19 individuals, representing 19 different service provider organizations in Iowa, sufficiently completed the survey for use in analyses (6.09% response rate).

SURVEY INSTRUMENTS

Human Sciences Extension and Outreach Survey

Extension staff completed a four-part survey. First, staff provided demographic information, including their gender, age, race and ethnicity, education level, program, position, years of experience in Human Sciences Extension and Outreach, and experience with people with IDDs in professional and personal contexts. Of note, experience with people with IDDs was recorded through a series of dichotomous (i.e., yes, no) questions about experience in professional (i.e., Extension and Outreach programs, other job settings/environments) and personal (i.e., immediate family, extended family, close friends) contexts. Second, staff completed a 32-item survey about beliefs regarding Extension education for individuals with IDDs. Questions were organized into four groups, including benefits of participation, barriers to participation, acceptance/inclusion in programming, and challenges of programming. All items used a 4-point Likert-type scale (i.e., strongly disagree, disagree, agree, strongly agree). Items included in this section were developed from previous studies of Extension educator attitudes (Boone et al., 2006; LaVergne, 2013). Third, staff completed the short form of the Community Living Attitude Scale for Intellectual Disability (CLAS-ID; Henry, Keys, Balcazar, & Jopp, 1996; Henry, Keys, Jopp, & Balcazar, 1996; Henry et al., 1999), a 17-item survey that measures attitudes towards people with IDDs. The CLAS-ID measures attitudes across four dimensions: empowerment, similarity, sheltering, and exclusion. Respondents select from a 6-point Likert-type scale (i.e., strongly disagree, disagree, somewhat disagree, somewhat agree, agree, strongly agree). Higher scores (more agreement) on empowerment and similarity dimensions reflect a more positive attitude, whereas higher scores on sheltering and exclusion dimensions reflect

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a less positive attitude toward individuals with IDD. The CLAS-ID scale has demonstrated acceptable internal consistency for all four dimensions ($\alpha = 0.75\text{--}0.86$; Henry, Keys, Jopp, & Balcazar, 1996). Finally, staff completed an 18-item survey on beliefs related to training needs to serve individuals with IDD. Each item was on a 4-point Likert-type scale and reflected a content area for training (e.g., person-first language, instructional techniques, behavior management). The list of training items was developed from previous studies of IDD training in Extension (Keywood & Brill, 2021; Mahadevan et al., 2014).

Iowa IDD Service Provider Survey

Respondents from IDD service provider organizations completed a two-part survey. First, respondents provided demographic information on the organization, staff, and the individuals with IDD whom the organization serves. Second, respondents completed the same 18-item survey as Extension staff on beliefs related to training needs to serve individuals with IDD.

ANALYSIS

Descriptive statistics, including means, standard deviations, frequencies, and proportions, were calculated for demographic characteristics of respondents. To address the primary research questions, nonparametric statistics were used to account for non-normal distributions and ordinal Likert-type data. Kruskal–Wallis tests (1952) and Mann–Whitney U tests (1947) with r effect sizes were used to examine differences based on personal experience with IDD for staff beliefs about programming for individuals with IDD and the CLAS-ID scale. Kruskal–Wallis tests were specific to each dimension of the surveys, while Mann–Whitney U tests were used for post hoc comparisons when significant subscale differences were observed. Finally, Mann–Whitney U tests with r effect sizes were used to examine differences in responses between Extension staff and IDD service providers about the most critical topics for training. All analyses were conducted in SPSS (v. 26), with an alpha of 0.05 and Holm adjustments (1979) for multiple comparisons.

RESULTS

A sample of 57 staff from Iowa State University Human Sciences Extension and Outreach was included in the analysis (see Table 1). Respondents were predominantly female (95%), non-Hispanic White (88%), and college-educated (95%). These demographics are consistent with the larger staff from which the sample was drawn. Of note to our objectives, 35% of respondents had Extension programs that currently included individuals with IDD, and 56% had personal experiences with IDD via a family member or friend.

Table 1. Demographics of Extension Staff

Total	57 (100%)
Sex	
Male	2 (3.5%)
Female	54 (94.7%)
Elect not to respond	1 (1.8%)
Age	46.05 \pm 12.82
Ethnicity	
Non-Hispanic/Latino	50 (87.7%)
Hispanic/Latino	3 (5.3%)
Elect not to respond	3 (5.3%)
Race	
White	50 (87.7%)
Black/African American	3 (5.3%)
Asian	1 (1.8%)
Elect not to respond	2 (3.5%)
Level of education	
High school diploma	1 (1.8%)
Trade/Associate degree	2 (3.5%)
Bachelor's degree	22 (38.6%)
Master's degree	27 (47.4%)
Ph.D./Professional degree	5 (8.8%)
Years of experience in Extension	10.42 \pm 10.24
Specialty	
Nutrition and wellness	25 (43.9%)
Family life	25 (45.6%)
Family finance	6 (10.5%)
Position	
Field specialist	23 (40.4%)
County staff	13 (22.8%)
Campus specialist	10 (17.5%)
Program assistant	7 (12.3%)
Program coordinator	4 (7.0%)
Extension program is SNAP-funded	
Yes	12 (21.1%)
No	45 (78.9%)
Extension program currently includes individuals with IDD	
Yes	20 (35.1%)
No	37 (64.9%)

Descriptive statistics reported are n (%) or $M \pm SD$.

SNAP = Supplemental Nutrition Assistance Program; IDD = intellectual and developmental disabilities.

Table 2. Extension Staff Beliefs About Programming for People With IDD, by Personal Experience

	Personal experience					No experience					U	ES
	SD	D	A	SA	n	SD	D	A	SA	n		
Benefits												
There will be benefits from the inclusion of persons with IDDs in Extension and Outreach programs.	0%	0%	39%	61%	31	0%	0%	71%	29%	24	.019	.316
Inclusion will improve social relationships between persons with and without IDDs in Extension and Outreach programs.	0%	3%	47%	50%	32	0%	0%	71%	29%	24	.170	.183
Extension and Outreach programs will have a positive impact on career exploration opportunities for persons with IDDs.	0%	10%	45%	45%	31	4%	13%	63%	21%	24	.066	.248
Extension and Outreach programs will promote leadership opportunities for persons with IDDs.	0%	10%	52%	39%	31	0%	17%	75%	8%	24	.020	.313
Extension and Outreach programs will help persons with IDDs improve independence.	0%	0%	38%	63%	32	0%	4%	75%	21%	24	.002	.422
The inclusion of persons with IDDs in Extension and Outreach programs will be a benefit for the local community.	0%	0%	31%	69%	32	0%	0%	75%	25%	24	.001	.429
Barriers												
The lack of information about Extension and Outreach programs that are targeted toward persons with IDDs has an impact on their participation.	0%	9%	59%	31%	32	4%	9%	57%	30%	23	.793	.035
A lack of role models hinders the participation of persons with IDDs in Extension and Outreach programs.	0%	29%	48%	23%	31	4%	22%	57%	17%	23	.856	.025
The perception of Extension and Outreach influences the participation of persons with IDDs in our programs.	0%	30%	50%	20%	30	4%	26%	61%	9%	23	.511	.090
Improper program materials are a barrier for persons with IDDs in Extension and Outreach programs.	0%	13%	48%	39%	31	0%	22%	61%	17%	23	.098	.225
Rejection by peers is a barrier to participation by persons with IDDs in Extension and Outreach programs.	6%	45%	42%	6%	31	13%	39%	39%	9%	23	.850	.026
Negative stereotypes are a reason why persons with IDDs do not participate in Extension and Outreach programs.	3%	50%	41%	6%	32	13%	48%	39%	0%	23	.291	.142
Inclusion												
I would be willing to accept persons with IDDs as participants in my current programs.	0%	6%	34%	59%	32	0%	9%	57%	35%	23	.091	.228
Special training should be offered to Extension and Outreach leaders before programs for the persons with IDDs are started.	0%	0%	31%	69%	32	0%	4%	30%	65%	23	.707	.051

Table 2. (continued)

	Personal experience						No experience						U	ES
	SD	D	A	SA	n		SD	D	A	SA	n	P		
I believe that I could use sign language or other adaptive communication techniques to communicate with participants with IDDs.	0%	29%	52%	19%	31		13%	48%	39%	0%	23	.003	.398	
I believe that I have adequate training to work with persons with IDDs.	10%	60%	23%	7%	30		13%	65%	22%	0%	23	.430	.108	
I currently have Extension and Outreach program offerings available to me that are appropriate for persons with IDDs.	10%	52%	39%	0%	31		17%	54%	21%	8%	23	.500	.091	
Acceptance														
Including persons with IDDs as participants will provide a good experience for my current participants.	0%	13%	35%	52%	31		0%	13%	70%	17%	23	.040	.280	
Including persons with IDDs will offer diverse interactions.	0%	0%	50%	50%	32		0%	9%	52%	39%	23	.278	.146	
Programming will promote acceptance between persons with IDDs and my current participants.	0%	10%	43%	47%	30		0%	17%	70%	13%	23	.018	.325	
My current participants would interact with persons with IDDs.	0%	17%	60%	23%	30		0%	26%	61%	13%	23	.263	.154	
My current Extension and Outreach program(s) will promote growth for persons with IDDs.	0%	13%	50%	38%	32		0%	22%	65%	13%	23	.056	.258	
Distractions														
Persons with IDDs have behavioral problems that would be disruptive to my current programs and activities.	0%	72%	28%	0%	32		4%	65%	30%	0%	23	.949	.009	
Involvement of persons with IDDs will take time away from my current participants.	3%	55%	42%	0%	31		4%	52%	43%	0%	23	.952	.008	
My current participants will feel uncomfortable with a person with IDDs as a participant in my program.	7%	62%	28%	3%	29		0%	70%	30%	0%	23	.817	.032	
Persons with IDDs will be ignored by my other participants.	10%	77%	13%	0%	31		0%	83%	17%	0%	23	.267	.151	
Behavior of persons with IDDs will set an undesirable example for other participants.	20%	77%	3%	0%	30		30%	65%	4%	0%	22	.465	.100	
Challenges														
Persons with IDDs will not be able to participate in most activities or projects.	7%	70%	20%	3%	30		0%	78%	22%	0%	23	.816	.032	
Persons with IDDs are best served through special and separate programs.	7%	73%	20%	0%	30		9%	68%	23%	0%	22	.963	.006	
The interest of persons with IDDs is being met through other programs; therefore, they do not need my program.	23%	70%	7%	0%	30		9%	74%	13%	4%	23	.083	.238	
Persons with IDDs have difficulties learning; therefore, my program cannot help.	26%	71%	3%	0%	31		18%	73%	9%	0%	22	.359	.126	
Participants with IDDs will be more challenging to teach than my current program participants.	3%	23%	71%	3%	31		0%	9%	91%	0%	23	.198	.175	

Note. Results are % and n, by group. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree. IDDs = intellectual and developmental disabilities. U = Mann-Whitney U test. ES = r (z/√N), moderate effect is ≥ 0.30, **bolded**. p < .05, bolded.

Table 3. Community Living Attitude Scale, by Personal Experience

	Personal experience						No experience						U	ES		
	STD	D	SWD	SWA	A	STA	n	STD	D	SWD	SWA	A	STA	n	p	r
Empowerment																
People with IDDds should not be allowed to marry and have children. (R)	52%	26%	23%	0%	0%	0%	31	38%	21%	17%	25%	0%	0%	24	.083	.234
A person would be foolish to marry a person with IDDds. (R)	56%	34%	6%	0%	0%	4%	32	21%	38%	13%	21%	4%	4%	24	.002	.424
The opinions of a person with IDDds should carry more weight than those of family members and professionals in decisions affecting that person.	0%	6%	25%	44%	22%	3%	32	0%	4%	38%	42%	8%	8%	24	.472	.096
People with IDDds can plan meetings and conferences without assistance from others.	3%	10%	23%	26%	23%	16%	32	4%	8%	13%	54%	17%	4%	24	.591	.072
People with IDDds can be trusted to handle money responsibly.	0%	9%	28%	50%	13%	0%	32	0%	4%	25%	54%	17%	0%	24	.442	.103
Similarity																
People with IDDds do not need to make choices about the things they will do each day. (R)	88%	9%	3%	0%	0%	0%	32	54%	38%	0%	4%	4%	0%	24	.006	.365
People with IDDds can be productive members of society.	0%	0%	0%	0%	22%	78%	32	4%	0%	0%	8%	42%	46%	24	.008	.354
People with IDDds have goals for their lives just like other people.	0%	3%	0%	0%	28%	69%	32	4%	0%	0%	17%	25%	54%	24	.153	.191
People with IDDds can have close personal relationships just like everyone else.	3%	0%	0%	0%	25%	72%	32	0%	0%	0%	8%	29%	63%	24	.424	.107
Sheltering																
People with IDDds need someone to plan their activities for them.	10%	35%	39%	13%	3%	0%	32	4%	46%	25%	21%	4%	0%	24	.809	.033
Sheltered workshops for people with IDDds are essential.	9%	9%	13%	31%	22%	16%	32	4%	0%	4%	38%	33%	21%	24	.100	.220
People with IDDds usually should be in group homes or other facilities where they can have the help and support of staff.	30%	23%	30%	13%	3%	0%	30	8%	21%	42%	17%	13%	0%	24	.042	.227
People with IDDds should live in sheltered facilities because of the dangers of life in the community.	53%	27%	13%	3%	3%	0%	30	17%	46%	21%	8%	8%	0%	24	.011	.344
Exclusion																
Homes and services for people with IDDds should be kept out of residential neighborhoods.	80%	17%	3%	0%	0%	0%	30	46%	42%	4%	4%	4%	0%	24	.009	.357
Increased spending on programs for people with IDDds is a waste of money.	66%	34%	0%	0%	0%	0%	32	42%	38%	13%	4%	4%	0%	24	.026	.298
Homes and services for people with IDDds downgrade the neighborhoods in which they are located.	63%	31%	6%	0%	0%	0%	32	42%	38%	13%	4%	4%	0%	24	.071	.241
People who have IDDds are a burden on society.	87%	6%	6%	0%	0%	0%	32	58%	21%	13%	4%	4%	0%	24	.015	.327

Results are % and n, by group. STD = strongly disagree; D = disagree; SWD = somewhat disagree; SWA = somewhat agree; A = agree; SA = strongly agree; (R) = reverse-coded item. *IDDs* = intellectual and developmental disabilities. *U* = Mann-Whitney *U* test. *ES* = $r(z/\sqrt{N})$, moderate effect is ≥ 0.30 , **bolded**. $p < .05$, bolded.

Inclusive Programming for Adults with IDD

Extension staff beliefs about programming for people with IDDs are presented in Table 2. In general, Extension staff responded with positive views about the potential benefits of inclusion, chances of acceptance among current Extension participants, and confidence in overcoming challenges of inclusion for persons with IDDs. On multiple survey items, beliefs about Extension programming for individuals with IDDs differed between staff who reported personal experience with people with IDDs and those without personal experience. In these cases, staff with experience had more positive beliefs compared to staff without experience. Notable items for which Extension staff reporting experience with people with IDDs had statistically more positive responses than staff without experience included the potential for Extension programs to help people with IDDs improve independence ($p = .002, r = .422$), inclusion in Extension programming being beneficial to the local community ($p = .001, r = .429$), and confidence that they could use sign language or other adaptive communication techniques to communicate with participants with IDDs ($p = .003, r = .398$).

To understand the attitudes of Extension staff toward people with IDDs, responses from the CLAS-ID were examined. Similar to beliefs about Extension programming, attitudes across the sample were generally positive (see Table 3). However, multiple differences in attitudes were observed between staff with and without personal experience with people with IDDs, including at least one statement in each of the four dimensions of the CLAS-ID (i.e., empowerment, similarity, sheltering, exclusion). Staff with experience were more likely to have positive attitudes compared to staff without experience. The most notable observation was that staff with experience were significantly more likely to disagree with the empowerment statement “a person would be foolish to marry a person with IDDs” ($p = .002, r = .424$). Staff with experience were also more likely to disagree with three statements related to exclusion of people with IDDs ($p < .026, r > .298$), reflecting exclusion as the most consistent dimension of the CLAS-ID with group differences.

In addition to the 57 Extension staff, 19 respondents from IDD service provider organizations (see Table 4) also completed a survey on training needs for our Extension staff to effectively provide programming to individuals with IDDs. Across our staff and IDD service providers, the most requested areas for Extension staff training included (a) instructional techniques (3.46 ± 0.58), (b) barriers and facilitators (3.40 ± 0.57), (c) disability etiquette (3.37 ± 0.56), (d) programming (3.35 ± 0.56), and (e) accommodation versus modification (3.34 ± 0.60). Statistically significant differences between Extension staff and IDD service providers were identified for three training items. Most notably, person-first language was the top-ranked training activity among IDD service providers but the lowest ranked among Extension staff ($p < .001$). IDD service providers also ranked the topics

Table 4. Demographics of IDD Service Providers in Iowa

Total	19 (100%)
Type of organization	
Supported community living	9 (50%)
Community-based programming	5 (28%)
Group home	1 (5%)
Employment services	1 (5%)
Respite care	1 (5%)
Residential care facility	1 (5%)
Other	1 (5%)
Organization staff	
Years of operation	33.21 ± 15.45
Number of staff members employed	193.68 ± 259.57
Percentage of staff working with individuals with IDDs (%)	83.58% ± 25.76%
Clientele	
Clients with IDDs served (per year)	180.68 ± 275.66
Percentage of clients with IDDs (%)	70.36% ± 32.50%
Percentage of clients with IDDs below poverty line (%)	90.44% ± 14.96%
Health programming	
Organization currently employs staff to provide nutrition education.	11 (58%)
Organization currently employs staff to provide nutrition support.	18 (95%)
Organization currently employs staff to provide physical activity or exercise programming.	13 (68%)
Organization currently provides physical activity or exercise programming to individuals with IDDs.	15 (79%)
Staff have professional training in nutrition or exercise.	5 (26%)

Descriptive statistics reported are n (%) or $M \pm SD$. IDDs = intellectual and developmental disabilities.

of diversity and disability ($p = .004$) and equity versus equality ($p = .005$) significantly higher than did Extension staff. A complete reporting of staff training needs is presented in Table 5.

DISCUSSION

We conducted this needs assessment study to understand the attitudes and beliefs of our Extension staff with regard to implementing staff training and, subsequently, direct education programs for individuals with IDDs through Iowa State University Human Sciences Extension and Outreach. The results of the survey indicated that our Extension staff

Table 5. Differences in Perceptions of Training Needs for Extension Staff

	Extension staff					Iowa IDD service providers					U			
	SD	D	A	SA	n	RANK	SD	D	A	SA	n	RANK	p	r
Accessibility	0%	9%	67%	24%	55	T10	0%	5%	58%	37%	19	T11	.251	.133
Accommodations versus modifications	0%	7%	51%	42%	55	T4	0%	5%	58%	37%	19	T11	.802	.029
Americans with Disability Act	2%	25%	54%	20%	56	17	0%	16%	79%	5%	19	17	.917	.012
Assistive devices	0%	2%	65%	33%	55	T6	0%	5%	63%	32%	19	T13	.789	.031
Barriers and facilitators	0%	5%	54%	41%	56	T2	0%	0%	47%	53%	19	6	.299	.120
Behavior management	0%	7%	51%	42%	55	T4	5%	5%	47%	42%	19	T13	.885	.017
Communication	0%	13%	53%	35%	55	9	0%	0%	37%	63%	19	3	.017	.278
Definitions of common disabilities	0%	11%	64%	25%	56	11	0%	11%	58%	32%	19	15	.649	.053
Disability awareness activities	0%	11%	50%	39%	54	8	0%	0%	53%	47%	19	T7	.302	.121
Disability etiquette	0%	5%	54%	41%	56	T2	0%	0%	58%	42%	19	T9	.759	.035
Diversity and disability	0%	21%	57%	21%	56	14	0%	0%	42%	58%	19	T4	.001	.377
Equity versus equality	4%	19%	56%	22%	54	T15	0%	0%	42%	58%	19	T4	.001	.374
Instructional techniques	0%	5%	51%	44%	55	1	0%	0%	32%	68%	19	2	.052	.226
Programming	0%	5%	58%	36%	55	T6	0%	0%	53%	47%	19	T7	.303	.120
Person-first language	4%	34%	48%	14%	56	18	0%	0%	26%	74%	19	1	< .001	.552
Service animals	4%	16%	55%	25%	56	13	0%	11%	84%	5%	19	16	.516	.075
State and national statistics	4%	14%	64%	18%	56	T15	0%	5%	47%	47%	19	18	.185	.153
Terminology	2%	14%	61%	23%	56	12	0%	5%	47%	47%	19	T9	.036	.242

Results are % and n, by group. SD = strongly disagree; D = disagree; A = agree; SA = strongly agree. IDDs = intellectual and developmental disabilities. U = Mann-Whitney U test. ES = r (z/√N), moderate effect is ≥ 0.30, **bolded**.
 p < .05, **bolded**.

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had positive attitudes toward people with IDDs and believed that Extension programming could be helpful for individuals with IDDs, would be beneficial to the community, and could be implemented effectively by staff. Despite the positive attitudes and beliefs expressed by the sample, important areas must be addressed when considering staff training to support inclusive programming. These results are consistent with the favorable attitudes toward inclusive programming and barriers to including individuals with IDDs in programming that have been presented in the *Journal of Extension* (Boone et al., 2006; Ingram, 1999; LaVergne, 2013; Mouton & Bruce, 2013; Peterson et al., 2012; Taylor-Winney et al., 2019).

The primary finding across analyses was that Extension staff who reported personal experience with people with IDDs had more positive attitudes and beliefs compared to staff who did not have previous experience. The influence of experience, notably through personal connection, is consistent with the tenets of contact theory (Allport, 1954), which posits that increased contact (i.e., experience) with members of different groups may lead to decreased biases, fewer stereotypical assumptions, and more favorable attitudes of one another. In particular, the group in power (e.g., leaders, teachers, decision-makers) is more likely to have favorable attitudes about a particular group with greater exposure (Pettigrew, 1998). Thus, experience with people with disabilities may contribute to positive attitudes toward people with disabilities (Case et al., 2021; McKay, 2018). The original theory (Allport, 1954) stated that multiple conditions needed to be present for contact to be effective: (a) equal status, (b) community/authority support, (c) common goals, and (d) meaningful interactions. However, a meta-analysis by Pettigrew and Tropp (2006) reported that positive outcomes could be achieved with only one or two of the conditions present. Recently, this theory was applied to examining the effect of service-learning on the attitudes of college students toward people with disabilities (Case et al., 2021). The meta-analysis found that all service learning had a positive impact on student attitudes, but programs that were voluntary and had common goals (between the student and participant with a disability) were more effective.

Our findings, coupled with the literature on contact theory, offer insight into the training of our Extension staff to implement inclusive and adaptive programming for individuals with IDDs. For example, our leadership members in Human Sciences Extension and Outreach have begun to complete modules from the Developmental Disabilities Training Series, offered through Colorado State University (Keywood & Brill, 2021), since the survey was conducted. The training series is organized into five courses, including (a) overview of developmental disabilities, (b) disabilities and learning, (c) understanding and managing behavior, (d) visual supports, and (e) understanding disabilities laws and making program adaptations. The stated objective of this training series is

to “provide Extension personnel, volunteers, and nonformal educators with knowledge and skills for effectively engaging individuals with developmental disabilities” (Keywood & Brill, 2021). Anecdotal feedback regarding these trainings has been positive; however, the results of our needs assessment survey suggested that in addition to knowledge, direct experience (i.e., contact) with individuals with IDDs is another aspect of training to be considered. In our opinion, this consideration poses more questions: Do we prioritize hiring individuals with experience? How do we provide opportunities for our staff to gain direct experience? How do we incorporate experiential learning into traditional, knowledge-oriented training workshops for staff? Based on contact theory, any activities that become part of required staff trainings should be consistent with the conditions presented by Allport (1954). Specifically, research indicates that activities with common goals for the learner and the participant with IDDs are most likely to be effective (Case et al., 2021; Pettigrew & Tropp, 2006).

In addition to emphasizing experiential learning for the training of Extension staff to facilitate programs for people with IDDs, the results of our needs assessment survey also provided context on the types of training that are needed. Across Extension staff and service providers, the highest training needs identified were instructional techniques, barriers and facilitators, disability etiquette, programming, and accommodation versus modification. Fortunately, many of these areas are addressed within the Developmental Disabilities Training Series (Keywood & Brill, 2021). When comparing the responses between Extension staff and local IDD service providers, interesting patterns emerged. The most notable pattern was a large discrepancy in the perceived importance of person-first language. Service provider responses ranked person-first language as the most important area for staff training, while our Extension staff ranked the topic as the least important training area. In Extension, our staff have been exposed to concepts of person-first language beyond people with IDDs (e.g., people with a brain injury or those who use a wheelchair for mobility) through workshops and other trainings and may view person-first language as a competency they already possess. We questioned whether we would see similar results in surveys of service providers working with other populations (such as individuals with brain injury). We posit that this could be an informative line of research, programming, and/or training for our Extension system related to advancing mutually beneficial goals with various external partners working in this space. More importantly, this discrepancy reflects a lack of contact between Extension staff and the agencies surveyed that needs to be addressed before programming can be implemented.

CONSIDERATIONS AND CONCLUSION

Based on the findings of our needs assessment, we conclude that our Extension staff have predominately positive views about the benefits of Extension programming for people with disabilities and hopeful perspectives on the ability to implement inclusive programming. The caveat is that direct training and experience are needed for our staff to be comfortable with implementation and to maintain these positive attitudes. As such, we have developed the following action items to guide our steps forward with staff training, program design, and implementation of inclusive programming for individuals with IDD:

1. Provide our Extension staff with knowledge-based training by using the Developmental Disabilities Training Series (Keywood & Brill, 2021).
2. Cultivate strategic communication between Iowa State University Extension and Outreach and organizations serving individuals with IDD within the state to improve our collective understanding of needs and opportunities for Extension programs, which should lead to mutually beneficial programming.
3. Engage with organizations serving individuals with IDD within the state to co-create Extension program offerings to strengthen partnerships with relevant stakeholders and efficiently engage potential participants.
4. Identify opportunities for Extension staff to engage with people with IDD to build professional confidence, including leveraging opportunities to shadow staff who have these relationships and/or currently offer inclusive programming.

In conclusion, we were able to capture relevant information from our Extension staff on their attitudes and beliefs about people with IDD and programming that could serve this population. We anticipate that these outcomes will be used to inform our SNAP-Ed and EFNEP programming, but they should apply to any program in Human Sciences Extension and Outreach. We view this information as critical to understanding staff needs to inform future training and eventual program implementation. Nevertheless, our data are specific to Human Sciences Extension and Outreach in the state of Iowa, which may not generalize to other states. Furthermore, the low response rate from Iowa IDD service providers is a limitation of our study, and the perceptions reported are likely not generalizable. It is positive, however, that the responses of our Extension staff appear to be consistent with staff in other states (Anderson et al., 2021; Boone et al., 2006; Brill, 2010; Ingram, 1999; Keywood & Brill, 2021; LaVergne, 2013; Mouton & Bruce, 2013; Peterson et al., 2012; Taylor-Winney et al., 2019). We agree with Keywood and Brill (2021): It is critical for Extension staff to be able to provide

inclusive programming, and knowledge to effectively engage participants with IDD is a necessary prerequisite. Through the lens of contact theory, we also extend the concept that experience with people with IDD may be a facilitator of this process. We will move forward with training our staff on effective engagement of participants with IDD, facilitating opportunities for experiential learning for our staff to interact with people with IDD, and developing and implementing programming that is designed to meet the needs of this population. We encourage other state agencies and Extension and Outreach programs to determine the training needs of their staff in this area and to prioritize the development of Extension programming to benefit eligible participants.

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