

CaPromise: Training interventions for parents and guardians of young recipients of Supplemental Security Income

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Abstract.

BACKGROUND: Parents and guardians play significant roles helping young individuals with disabilities to develop expectations about adult endeavors, including postsecondary education and work. These expectations are partially shaped by access to information and training related to disability, education, employment, community resources, and disability-related services and supports.

OBJECTIVE: The purpose of this research is to illustrate the findings of a longitudinal examination of provision of information and training interventions to parents of young recipients of Supplemental Security Income (SSI).

METHODS: The inquiry examined case service data of 1,646 young SSI recipients and their parents or guardians. Analyses examined trends in parent/guardian information and training interventions based upon the youth's age, gender, disability type, the parent's employment status, parent's education level, and youth and parent expectations about work and college.

RESULTS: There were no differences in interventions received associated with gender, age, parent education level, or parent expectation that the youth would work after completing high school. However, there were differences in interventions received associated with type of disability and parent/guardian employment status. Additionally, youth who expected to seek employment or attend college after high school and parents who expected their youth to attend college received significantly fewer interventions, while those who did not hold those expectations received significantly more interventions.

Keywords: Parents, guardians, transition-age youth, SSI

1. Introduction

Despite changes in relevant legislation (i.e., 2014 Workforce Innovation and Opportunity Act, 2008 Higher Education Opportunity Act), and evidence-based research related to improving access to both postsecondary education (e.g., Test et al., 2009) and employment (e.g., Fabian et al., 2016), a significant

gap exists between youth with and without disabilities in achieving postsecondary education enrollment and successful employment outcomes. According to the United States Department of Labor (2018), 22.1% of youth with disabilities between the ages of 16 and 19 participate in the labor force compared to 33.6% of youth with no disability. The labor force participation gap widens for young adults between the ages of 20 and 24 years where 49.1% of young adults with disabilities are working, while 71.3% of those without disabilities are employed. With respect to postsecondary education, only 45% of youth with disabilities who exited high school

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continued on to postsecondary education within the following four years (National Center for Special Education Research, 2009). Of those who continued their education, youth with disabilities were more likely to have enrolled in two-year colleges (32%), or in business, technical or vocational schools (23%), than in four-year colleges (14%). Still, completing high school, whether they graduated, received a certificate of attendance/completion, passed a high school exit exam or completed a GED program, led to 51% of these youth continuing on to some type of postsecondary education, while only 17% of their peers with disabilities who did not complete high school did the same (2009).

Researchers have explored many factors related to the success of individuals with disabilities in education and employment. Over the past four decades, “family engagement is one of the strongest predictors of success in school and transition to employment for youth and young adults” (Whitehouse, Ingram, & Silverstein, 2016, p. 46). Traditional services provided to transition age youth include academic instruction, community experiences, development of employment and/or other post-school adult living objectives, acquisition of daily living skills when deemed appropriate and other related services. Parent training and information are less available even though parent involvement is a predictor of employment and postsecondary education outcomes for youth with disabilities (Hirano, Shanley, Garbacz, Rowe, Lindstrom, & Leve, 2017).

Families can help ensure that their child who has a disability is prepared to pursue postsecondary and employment goals immediately after high school graduation by placing a high priority upon career development. Their involvement can prepare youth for a positive transition into adulthood (National Collaborative on Workforce and Disability for Youth, 2014). A multitude of factors can affect employment and education outcomes for youth with disabilities, including how they define these outcomes. For example, Henninger and Taylor (2014) explored differences in parent definitions of post-school success for youth with intellectual disabilities. They found parents valued a range of employment outcomes and related outcomes including acquiring skills necessary for peer relationships and daily living activities. Other studies suggest that parent expectations have a strong impact on the outcomes achieved by youth and young adults; that is, positive links have been found between parent expectations and education outcomes (Chen & Gregory, 2009; DeBacker & Routon, 2017;

Zhang, Haddad, Torres, & Chen, 2011) and parent expectations and employment attainment (DiRago & Vaillant, 2007). Setting expectations for children is an important responsibility of being a parent as their expectations influence their children’s achievements, which tend to persist throughout later school years (Entwisle, Alexander & Olson, 2005).

Youth who are receiving disability-related Social Security benefits are the focus of this research, but little information exists to understand how parent/family engagement influences relevant educational and developmental benchmarks. Doren, Gau & Lindstrom (2012) reported that parents’ expectations are connected to obtaining paid employment, graduating from high school with a standard diploma, and attending postsecondary education after high school, that is, expectations for both employment and further education are significantly associated with the likelihood that youth with disabilities would attain these positive outcomes. Holmes, Kirby, Strassberg and Himle (2018) found that youth with Autism Spectrum Disorder (ASD) with average or above-average IQ predicted higher parent expectations in the areas of financial independence, school attainment, citizenship, and independent living. Additionally, there were gender differences related to parent expectations for youth with ASD. Parents of males with ASD reported having higher expectations than parents of females with ASD for their children’s futures.

Furthermore, parents with higher expectations tend to believe in the youth’s abilities and potential for academic achievement and post school outcomes, and thus, provide support, encouragement and engage in activities with their sons and daughters to foster their abilities (Doren, Gau & Lindstrom, 2012). Parents play an important role in fostering self-determination of youth with disabilities (Wehmeyer, 2014). Self-determination helps youth to develop the skills necessary to make informed decisions, which is closely tied to successful education and career outcomes for all young people, including youth with disabilities (Whitehouse, Ingram, & Silverstein, 2016). Additional research supports the significance of both home and school environments in providing opportunities and processes to develop abilities and knowledge (Carter, Trainor, Owens, Sweden & Sun, 2010), thus, emphasizing the importance of parental involvement. Hirano, Garbacz, Shanley, and Rowe (2016) found that the biggest barrier to parent involvement was poverty, as families are likely to be focused on meeting their basic survival needs. There are a variety of reasons why parents avoid involve-

ment, and participation in transition planning may change over time as contextual factors change. However, parents have acknowledged that time and energy can be a barrier to involvement. Beyond these factors, it is important to identify what activities are pertinent to successful outcomes.

To establish better outcomes for youth with disabilities, supports such as parent involvement are crucial to success. Hirano and Rowe (2016) identified models with activities to highlight the importance of parent involvement in transition planning and discussed the significant role parents play in their child's education. The activities concentrated on empowering parents to actively participate in transition planning by equipping the parents with skills and knowledge about transition, community supports and resources for the youth and family, and information on disability-related legislation (2016). While evidence-based reviews support parent involvement for creating the best outcomes possible for youth with disabilities, additional studies are needed with reference to the impact of early parent involvement regarding expectations and outcomes for education and employment and to the need for targeted parent training and information on these topics.

1.1. CaPromise program

The California Promise program (referred to as CaPromise) is a multiyear program located in the state of California that was designed to improve the educational and employment outcomes of young SSI recipients. CaPromise is one of six research and demonstration projects (October 1, 2013 through September 30, 2019) funded by the Office of Special Education Programs, Office of Special Education and Rehabilitative Services, U.S. Department of Education. California's project is administered through the California Department of Rehabilitation (CDOR). CaPromise's primary goal is increased self-sufficiency for SSI youth and their families. The project's focus is upon each youth and family, and their unique expectations, needs and interventions. The intervention model uses a person-centric plan with family-driven approaches for each youth and their family members. The desired outcomes include independence, self-sufficiency, completion of high school, improved quality of life, competitive integrated employment and a reduction in family poverty. The research design employs a randomized control group model through which youth participants (and their families) were randomly assigned to one of two

groups; 1,646 CaPromise youth (experimental group) and 1,627 Usual Services youth (control group). At the time of recruitment, the eligible youth were between the ages of 14 and 16 and were recipients of Supplemental Security Income (SSI).

The primary contact for each youth and their family members was through dedicated staff at one of 18 Local Education Agencies (LEAs). Engaged community partners included staff with each of the 18 LEAs, 16 Family Resource Centers (FRCs), 4 Independent Living Centers, 4 universities who provided selected undergraduate or graduate student assistance and a dedicated team of 10 CDOR counselors and two supervisors. Research, evaluation, training and technical assistance was provided by staff with the Interwork Institute at San Diego State University.

1.2. Research questions

The purpose of this investigation was to examine patterns evident in the delivery of information and training interventions to parents or guardians of young recipients of SSI and to study the associations between these interventions and youth and family characteristics. Analyses including descriptive statistics and inferential tests were conducted to address the following research questions:

1. What were the total number and mean number per family of parent/guardian training and information interventions for the CaPromise families? Within that total number, what were the mean numbers and total numbers of interventions specific to coaching, referral and FRC support?
2. Is there a statistical association between the number of parent/guardian training and information interventions and student demographics including gender, age at enrollment and disability?
3. Is there a statistical association between the number of interventions and parent/guardian demographics, such as employment status or level of formal education?
4. Is there a statistical association between the number of interventions received and expectations stated by parents and guardians regarding plans for their students to seek employment upon high school graduation?
5. Is there a statistical association between the number of interventions received and expectations stated by students regarding plans to seek

- employment upon high school graduation?
6. Is there a statistical association between the number of interventions received and expectations stated by parents and guardians regarding plans for their students to attend college upon high school graduation?
 7. Is there a statistical association between the number of interventions received and expectations stated by students regarding plans to attend college upon high school graduation?

2. Methods

The purpose of this study was to explore the patterns of provision of three specific information and training interventions to parents and guardians of young recipients of SSI (ages 14 – 21) and to explore the statistical associations between service delivery, family demographics, and youth and family expectations. The parent and guardian information and training interventions being studied were carried out during the first five years of the project (between May 5, 2014 and September 30, 2018). The primary measurement used to accomplish this investigation was service provider efforts, referred to as “interventions”. Any effort by CaPromise direct service staff to deliver, arrange, or otherwise facilitate the delivery of parent or guardian training and information was recorded in the program’s data management system as an intervention. The three parent/guardian training and information interventions were: (1) ‘referral’, (2) ‘coaching’ and (3) ‘Family Resource Center (FRC) support’. Referral interventions were provided to family members based on their needs and interests. Parents and family members were connected to programs and services to address a myriad of needs including education, employment, housing, citizenship, and mental health. Coaching interventions encompassed individual consultations and group meetings and workshops designed to assist parents and guardians in a variety of areas including emotional support, navigating multiple service systems (e.g., Social Security Administration, vocational rehabilitation, developmental disabilities service organizations), and preparing for Individualized Education Program meetings. FRC support interventions were interventions provided to family members by local FRCs located in or near the CaPromise service areas. Embracing a family-centered care approach, veteran parents at the FRC had personal experience parenting children with disabilities. The FRC staff worked closely with the

CaPromise staff in each region to provide parent-to-parent support, offered by experienced peer parents.

2.1. Sample

The investigation was accomplished through the examination of case service data pertaining to 1,646 young SSI recipients and their parents or guardians who participated in CaPromise. Interventions were recorded at the family level; when CaPromise staff recorded an intervention conducted with or on behalf of a participant, it could be linked to a specific family, but in many cases could not be linked to a specific individual within the family unit. A limited set of characteristics of individuals within the family unit were captured (e.g., the work expectations of the youth who received SSI, the highest level of education completed by a parent or guardian) which permitted examination of the associations between types of intervention and characteristics of the youth or the family.

G*Power 3.1 was used to conduct *post-hoc* power analyses, given that the maximum sample size of 1,646 was determined by the total number of participants enrolled in CaPromise. For the independent samples *t*-tests, statistical power to detect even small effect sizes ($d=0.25$) was well above .90 given the observed group sizes when using an alpha level of .05. For the MANOVA analysis, power to detect small effect sizes ($f^2=0.02$) was likewise well above .90 given the number of groups and an alpha level of .05.

Criteria for inclusion and exclusion. The CaPromise program enrolled a total of 3,273 youth receiving SSI, along with their families. Of those enrolled 1,646 families were assigned to receive CaPromise services and the remaining 1,627 families were assigned to a usual services group as part of a larger federal study of program outcomes. Those in the usual services group did not receive any of the CaPromise interventions that are the subject of this investigation and as a consequence were excluded from the study. All 1,646 families assigned to the treatment group were included in the current investigation. Any treatment group families that were missing data essential to a specific analyses were dropped from that analysis; as a result the number of valid cases in analyses was usually lower than 1,646.

2.2. Analyses

The statistical procedures used to analyze the research questions involved computing descriptive

statistics, and conducting multivariate analysis of variance (MANOVA) and *t*-tests for independent samples to examine continuous data.

2.3. Limitations

There are a number of limitations pertinent to this study that should be considered when interpreting the findings and contemplating their implications. First, there is an unknown level of human error embedded in the data used for the study. Information about youth, parents or guardians, and parent training and information interventions were entered into a case management system directly by service providers. Inaccurate record keeping and random or systematic errors in the ways data were recorded may have portrayed a different picture of program activities than what actually took place in some instances. Attempts were made to minimize these types of errors through staff training and careful design and maintenance of the case management system.

The analyses conducted as part of this study consisted of two MANOVA procedures and four *t*-tests for independent samples, for a total of six inferential tests. Inherent in each inferential test conducted is the possibility of an error in statistical decision-making. The use of several tests increases the likelihood of one or more Type I errors (alpha errors) across the collection of tests. As a result, the likelihood of one or more Type I errors in this investigation is greater than the likelihood of this type of error in a study that utilized fewer inferential tests of significance.

Another potential significant limitation lies in the distinction between interventions and outcomes. The interventions that were the primary focus of this inquiry reflect the actions and efforts of service providers and as such they represent efforts to provide or facilitate services, but are not completely reliable indicators of the provision of those services. An intervention by a service provider to arrange coaching for a parent, for example, does not reliably indicate receipt of coaching services by that same parent. As such, interventions are a better reflection of service provider efforts than service delivery, although there is an association between the two constructs. Interventions may also vary considerably with respect to the level of service provider effort involved in a single intervention. As such, there are limitations associated with relying solely on a simple count of intervention units as an indicator of service provider effort or family engagement. A brief phone call to remind a parent about a training event could be recorded as a sin-

gle intervention; likewise an hour-long consultation with the parent involving considerably more time and effort on the part of the service provider and parent might also be recorded as a single intervention.

Finally, the CaPromise program was in its final year of operation at the time this study was conducted. As a consequence, the associations between parent and guardian training and information efforts and the expected work and education outcomes for the CaPromise participants had not been assessed, thus for the study participants the link between interventions and the primary program outcomes (i.e., education and employment), had not yet been documented.

3. Results

This section provides a description of the findings related to the seven previously listed research questions. A discussion of the findings, as well recommendations appears later in the article.

3.1. Participant characteristics

Of the young SSI recipients, 1,118 (67.9%) were male and 528 (32.1%) were female. With respect to primary disabilities, 600 youth (36.5%) had disabilities that were classified as cognitive/intellectual (including intellectual disability, specific learning disability, and traumatic brain injury), 465 youth (28.3%) had disabilities that were classified as affective/emotional (including autism and emotional disturbance), 380 youth (23.1%) had mobility/health disabilities (including orthopedic impairment and other health impairment), 95 youth (5.8%) had sensory disabilities (including deaf-blindness, deafness, hearing impairment, speech or language impairment and visual impairment), 82 youth (5.0%) had multiple disabilities and 25 (1.5%) were missing primary disability data. The mean household size was 4.55 persons ($SD = 1.74$), and the largest household size was 13, which was reported by five families. A large majority of the youth lived with one or more parents; only 63 youth (3.8%) were identified as living in a home that did not include a parent.

3.2. Total number of parent/guardian training and information interventions

The mean and total numbers of interventions are detailed in Table 1 below. The term intervention refers

Table 1
Mean and total number of parent or guardian training and information interventions ($n = 1,646$ families)

	Coaching interventions	Referral interventions	FRC support interventions
Mean	5.61	14.38	4.43
Total	9,229	23,676	7,288

to CaPromise service provider efforts. Any effort by CaPromise service providers to deliver, coordinate, or otherwise facilitate parent or guardian training and information was recorded as an intervention. The total number of interventions provided across all types of parent/guardian training and information interventions over the duration of the program was 40,193. As can be seen in Table 1, the most frequently implemented intervention was 'referral', with an average of 14.38 referrals per family. Referrals were utilized on average considerably more often than the other two interventions (coaching = 5.61, FRC support = 4.43).

3.3. Association between interventions and student characteristics

A 2 X 3 X 5 MANOVA was employed to examine the statistical association between the three independent variables; gender, age at program enrollment (14, 15 or 16) and disability defined by the five categories of function described earlier (sensory, cognitive/intellectual, affective/emotional, mobility/health and multiple) and the three dependent measures that comprise parent/guardian training and information interventions (referral, coaching and FRC support). This approach provided the means to simultaneously examine the association of the three independent measures with the three dependent measures. It also provided the means to assess first and second order interaction effects among the three independent measures.

The results yielded no significant findings for the main effects of gender or age at enrollment. There were no significant first order interaction effects for

gender by age at enrollment, gender by disability or age at enrollment by disability. There was no second order interaction effect for gender by age at enrollment by disability. Significant findings were however observed for the main effect of disability (Pillai's Trace < .001). Significance was associated with two of the three dependent measures; coaching ($p = .001$) and FRC support ($p = .003$). The results are detailed further in Table 2.

Bonferroni *post-hoc* analysis of the findings pertaining to coaching revealed significant differences ($p = .003$) regarding the number of interventions received by individuals with cognitive/intellectual disabilities ($M = 16.64$) and individuals with mobility/health disabilities ($M = 11.34$). Bonferroni *post-hoc* analysis pertaining to FRC support revealed significant differences ($p < .001$) for the number of interventions received by individuals with affective/emotional disabilities ($M = 5.36$) and individuals with mobility/health disabilities ($M = 3.51$).

3.4. Association between interventions and parent characteristics

A 3 X 3 MANOVA was employed to examine the statistical association of the two independent variables; parent employment status at intake (with the values, 'employed part or full time', 'unemployed, seeking work' and 'unemployed – not seeking work') and parent education level (with the values, 'college degree', 'high school graduate' and 'not a high school graduate') with the three dependent measures that comprise parent/guardian training and information interventions (referral, coaching and FRC support). This analysis approach provided the means to simultaneously examine the association of the two independent measures with the three dependent measures. It also provided the opportunity to assess the interaction effect among the two independent measures. The results indicated no significant findings for the main effects of parent employment status, parent education level or interaction among the two main effects (Table 3).

Table 2
Significant findings for disability, coaching and FRC support

Source	Dependent measures	Type III SS	df	MS	F	p
Disability	Referral	282.474	4	70.618	.751	.558
	Coaching	9500.621	4	2375.155	4.670	.001
	FRC support	658.535	4	164.634	4.109	.003
Error	Referral	149775.542	1592	94.080		
	Coaching	809653.899	1592	508.577		
	FRC support	63792.869	1592	40.071		

Table 3
Nonsignificant findings for parent employment status and parent education

Source	Dependent measures	Type III SS	df	MS	F	Sig.
Employment	Referral	94.074	2	47.037	.486	.615
	Coaching	2383.851	2	1191.926	2.351	.096
	FRC Support	17.224	2	8.612	.215	.806
Education	Referral	308.642	2	154.321	1.596	.203
	Coaching	593.965	2	296.983	.586	.557
	FRC Support	115.393	2	57.696	1.443	.237
A X B	Referral	402.471	4	100.618	1.040	.385
	Coaching	1394.444	4	348.611	.688	.601
	FRC Support	75.258	4	18.814	.471	.757
Error	Referral	135792.901	1404	96.719		
	Coaching	711852.072	1404	507.017		
	FRC Support	56138.365	1404	39.985		

While significant findings were not observed with respect to main effects, one Bonferroni *post-hoc* analysis did reveal a significant finding. Families of parents who were employed part or full time received significantly fewer interventions ($M = 13.31$) than those who were unemployed – not seeking work ($M = 16.86$), ($p = .019$).

3.5. Association between interventions and parents' employment expectations

At enrollment, parents and guardians of youth were asked if they expected their youth to get a job after completing high school. Of those who responded to the question, 49.4% ($n = 801$) expected their youth to get a job and 50.6% ($n = 821$) did not. A *t*-test for independent samples was conducted to determine if a significant difference existed between the mean number of parent or guardian training and information interventions received by the parent's expectation that their child would or would not work after completing high school. The *t*-test indicated that the mean number of interventions provided to families whose parent expected the youth to work (24.35) was not significantly different from the mean number of interventions provided to families whose parent did not expect their youth to work (25.08) $t(1620) = .450$, $p = .653$.

3.6. Association between interventions and youths' employment expectations

At enrollment, youth participants were asked if they expected to get a job after completing high school. Of those who responded to the question, 50.2% ($n = 814$) expected to get a job and 49.8%

($n = 808$) did not. Analyses were conducted to determine if there were significant differences between the mean number of parent or guardian training and information interventions received by the youth's expectation that he or she would or would not work after completing high school. A *t*-test for independent samples indicated that there was a significant difference between the two means. Families of youth who expected to get a job after completing high school were provided with a significantly lower average number of interventions (22.71) than families of youth who did not expect to get a job after completing high school (26.74) $t(1620) = 2.490$, $p = .013$.

3.7. Association between interventions and parents' college expectations

At enrollment, parents and guardians of youth were asked if they expected their youth to go to college after completing high school. Of those who responded to the question, 59.4% ($n = 964$) expected their youth to go to college and 40.6% ($n = 658$) did not. Analyses were conducted to determine if there were significant differences between the number of parent or guardian training and information interventions received by the parent's expectation that their child would or would not attend college after completing high school. A *t*-test for independent samples indicated that there was a significant difference between the mean number of interventions provided to families where the parent expected their youth to go to college (18.22) and families where the parent did not expect their youth to go to college (21.72). Families where the parent did not expect the youth to go to college received a significantly greater average number of interventions $t(1620) = 2.768$, $p = .006$.

3.8. Association between interventions and youths' college expectations

At enrollment, youth were asked if they expected to go to college after completing high school. Of those who responded to the question, 53.1% ($n = 861$) expected to go to college and 46.9% ($n = 761$) did not. A t -test for independent samples was conducted to determine if there was a significant difference between the mean number of parent or guardian training and information interventions received by the youth's expectation that he or she would or would not attend college after completing high school. The t -test for independent samples yielded a significant finding. Families of youth who expected to go to college after completing high school received a significantly lower mean number of interventions (22.05) than families of youth who did not expect to go to college after completing high school (27.73) $t(1620) = 3.515, p < .001$.

4. Discussion

The research findings are significant as they establish a first step in determining statistical associations between a number of demographic and programmatic data elements and the three interventions provided within the parent/guardian training and intervention service area – arguably a service that strongly represents the essence of the CaPromise project.

With respect to the total and average number of parent/guardian training and information interventions, the summary in Table 1 suggests a pattern of possible underutilization of interventions that would otherwise appear to be central to the mission and goals of CaPromise. For example, the average number of documented FRC support interventions per family is only 4.43 for the entire life of family participation in CaPromise, which at the time of the study could have been up to a maximum of approximately four years. Further research regarding the decisions to deliver these interventions is recommended. This research should include conducting follow-up inquiries with service providers to attain their perspective on the frequency with which they used the three interventions that comprise the parent or guardian training and information services. Inquiries should include an examination of their perceptions regarding adequacy of staff training, comparison of the efficacy of each of the three interventions and the level of parent/guardian receptivity, appreciation of and confidence in these interventions.

The findings related to the frequency with which parent/guardian training and information interventions were provided suggest opportunities to strengthen the focus on family driven approaches with the participants and service providers. The findings of the first research question suggested that all of the parent or guardian training and information interventions were provided relatively infrequently. The education and engagement of the families at an early age is critical. This is both a conceptual shift as well as a service delivery shift. Engaging with and supporting the family unit as soon as possible will provide opportunities to shape expectations and highlight the importance of their active involvement in all aspects of their youth's education and rehabilitation.

An additional strategy to address the potential underutilization of parent or guardian training and information services involves emphasizing the importance of early transition discussions and interventions by exposing parents to adult service providers no later than the first year of high school in order to educate them about available supports and resources in high school and after high school. The ability to understand the supports available can increase expectations by boosting the parents' confidence and comfort level with future service providers (Pleet-Odle, Aspel, Leuchovius, Roy, Hawkins, Jennings & Test, 2016). Locating and understanding available services and supports can relieve doubts and fears parents have about the transition to adulthood.

Examining interventions by gender, age at enrollment and primary disability revealed no differences in interventions among the CaPromise participants by the student demographics of gender and age at enrollment. This is a potentially positive finding in that it may indicate relatively equitable treatment across gender and age groups in the delivery of interventions and services. Further research is recommended to examine other demographic characteristics including, but not limited to ethnicity and family size. Regarding student disability as defined by functional classification, the mobility/health group received a significantly lower number of coaching interventions than the cognitive/intellectual group. They also received significantly fewer FRC support interventions than the affective/emotional group. It may prove to be informative to conduct a follow-up inquiry to better understand the lower number of interventions provided to the mobility/health group. In a similar vein, we suggest conducting additional follow-up inquiries that focus on disability classification using other empirically validated and widely

used taxonomies. Such inquiries might yield valuable data that could provide guidance on service delivery training and resources as well as project monitoring.

Examining interventions by parent employment status and parent education level indicated that families of parents who reported working full-time received significantly fewer interventions than families of parents who were unemployed and not looking for work. There were no significant differences among any of the other parent employment status combinations. Regarding parent/guardian level of education, no significant differences were identified between the different parent education levels. In order to determine other possible factors associated with parent/guardian participation and confidence in the service delivery process, we believe it would be worthwhile to conduct follow-up inquiries focusing on parent/guardian demographics beyond employment status and level of formal education. The approach to conducting these inquiries would likely involve multivariate analytic approaches.

Examination of parent and student expectations about employment after high school yielded an interesting discrepancy. While there was not a significant difference in the mean number of interventions by parents' expectations, a significant difference was observed by the youths' expectations. Families of youth who expected to work after completing high school received significantly fewer parent/guardian training and information interventions than families of youth who did not expect to work.

With respect to expectations that the youth would attend college, significant differences were evident for both parents' expectations and youths' expectations. Families where the parent expected the youth to attend college received significantly fewer interventions. Likewise, families where the youth expected to attend college also received significantly fewer interventions. Is it possible that those who responded 'no' to the question about attending college represent a segment of the population that had greater needs and therefore received a greater average number of interventions? While significant findings were derived, it is not possible to assume causality between numbers of interventions received and stated expectations regarding college attendance.

These findings underscore the potential utility of conducting further inquiry with students and parents/guardians in order to more thoroughly understand their decision-making processes regarding post-high school plans to seek employment and/or attend college. These inquiries would focus on key

factors and time frames associated with these critical decisions that are intimately tied to CaPromise project goals. We expect that much could be learned by linking insights gained from these types of inquiries to the pattern of three interventions provided within this parent/guardian training and information service area and their perceptions of the value of each intervention.

The findings related to youth and parent expectations regarding work and college underscore the need to promote high expectations and involvement of families for their youth with disabilities by engaging parents in training and informational opportunities. At enrollment, only 50.2% of youth expected to get a job after completing high school while 49.4% of parents or guardians held that same expectation for their youth. Likewise, only 53.1% of youth expected to go to college after completing high school while 59.4% of parents or guardians held that same expectation for their youth. Using a variety of materials describing services and supports that are free of professional jargon, easy to understand, culturally sensitive, and accessible with and without technology (Whitehouse, Ingram, & Silverstein, 2016) may help to engage parents and guardians, many of whom are not high school graduates (40.3% in this study) or whose highest level of education completed is high school (40.5% in this study). It is important to ensure that flyers, brochures, website links, and contact information are provided to family members in accessible user-friendly formats, which includes using the primary language of the household. Practitioners may also consider referring families to local or state transition websites, and providing access to computers for families who do not have internet access (Pleet-Odle, Aspel, Leuchovius, Roy, Hawkins, Jennings & Test, 2016).

Strategies to address underutilization of parent training and information services (evident in the findings of the first research question) and the relatively low expectations about work and postsecondary education participation (evident in the findings of research questions six and seven) should involve engaging families in the design and delivery of training curriculum and promoting career development strategies to raise expectations and promote education and employment outcomes (Whitehouse, Ingram, & Silverstein, 2016). Continuing advocacy is essential to raising the relatively low work and postsecondary education expectations of youth and parents or guardians that were detailed in the findings of research questions six and seven. The sources of advocacy must not be limited to service delivery per-

sonnel. It is essential that students and their families are engaged in capacity-building activities to become their own effective advocates.

The findings of this inquiry provide a foundation of evidence that may serve as a platform for improving program practices and stimulating additional research efforts. It is hoped that these recommendations enhance the impact of parent/guardian training interventions and ultimately help strengthen the extent of family involvement in the pursuit of person-centered and family-driven expectations.

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Conflict of interest

None to report.

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