A MULTIDISCIPLINARY SURVEY OF HOME MODIFICATION PROFESSIONALS: A SNAPSHOT ON THE STATE OF PRACTICE

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ABSTRACT

There has been a paucity of published research on home modifications over the past decade. The current study reports the results of an online survey of 96 home modification practitioners, including therapists, architects, and contractors. The purpose was to assess the state of key service delivery elements, including: continuing education, advanced certifications, caseload, assessment tools, follow-up, and needed improvements. All three participant groups reflected a high prevalence of continuing education experiences in home modification. Many had acquired advanced certifications in home modifications, with the Certified Aging in Place Specialist being most frequently reported among these. Due to the multiplicity of funding options, there is often confusion about the services and interventions that will and will not be funded. Most practitioners do not use a standardized assessment tool, choosing instead to create their own. Practitioners in all three disciplines do not routinely collect follow-up data on the impact of their home modification services. As a field of practice, consensus standards of practice are needed. In addition, a concise outcomes measurement tool is needed to support regular capture of impact data.

BACKGROUND

Home modifications are adaptations to the home environment intended to improve the functional independence and safety of people with disabilities and older adults seeking to age-in-place. The model for delivering home modification services often involves a mix of professionals that can include architects, therapists, contractors, and case managers (Pynoos, Steinman, & Nguyen, 2010; Steinfeld & Maisel, 2012; Wahl, Fänge, Oswald, Gitlin, & Iwarsson, 2009).

The literature from the early 2000's indicated that the home modifications service delivery sector faced a number of challenges, including: disparate funding sources with diverse consumer eligibility criteria; lengthy non-standardized assessment tools, limited numbers of knowledgeable service delivery professionals (Gitlin, 2003; Pynoos & Sanford, 2002; Pynoos, Perelman, & Nishita, 2001) that resulted in considerable variation in service quality experienced by consumers (Barras, 2005). Although there have been some advancements over the past decade – including suggested practice guidelines for occupational therapists (Siebert, 2005) and certifications such as Certified Aging-in-Place Specialist (CAPS) – there are yet no overarching standards for home modification service delivery that describe: (a) who is qualified to perform these services; (b) role delineation among multidisciplinary service delivery team members; (c) the best-practice methods that should be deployed in order to render these services; or (d) the outcome measures that should be prioritized for evaluating the effectiveness of these services.

In response to the paucity of research in home modifications published over the past decade, the purpose of the current study was to assess the state of key service delivery elements for three practitioner disciplines: therapists, architects, and contractors.

METHOD

An online survey approach was used in order to overcome the geographic dispersion of home modification practitioners and obtain data that were not region-specific.

Participants

The data reported in this paper were gathered as part of a larger survey that sought responses from six groups associated with home modification service delivery: therapists, architects, contractors, case managers, program supervisors, and consumers. Participants were recruited through home modification listservs and social networking sites related to home modifications. The current conference paper reports a sub-set of data reported by respondents who were therapists, architects, and contractors.

Instrument

The survey consisted of four sections: (a) participant demographics, (b) service delivery processes, including funding sources and assessment tools; (c) follow-up conducted with consumers after completion of modifications; and (d) challenges and barriers to provision of modification services. Survey items included a mix of closed-form and open-ended response options. The initial version of the survey was uploaded to the SurveyMonkey platform and revised subsequent to pilot testing conducted with several architects and therapists at our Center.

	Architects n=26		Contractors n=27		Therapists n=43	
U.S. Region (n=96)						
Northeast (n=30)	10	38.5%	8	29.6%	12	27.9%
Midwest (n=16)	2	7.7%	6	22.2%	8	18.6%
South (n=27)	8	30.8%	6	22.2%	13	30.2%
West (n=13)	3	11.5%	5	18.5%	5	11.6%
No response (n=10)	3	11.5%	2	7.4%	5	11.6%
Continuing education (n=96)						
None (n=3)	1	3.8%	0	0.0%	2	4.7%
1-2 (n=15)	3	11.5%	4	14.8%	8	18.6%
3-5 (n=14)	2	7.7%	2	7.4%	10	23.3%
>5 (n=64)	20	76.9%	21	77.8%	23	53.5%
Advanced certifications (n=96)						
Yes (n=72)	15	57.7%	25	92.6%	32	74.4%
No (n=24)	11	42.3%	2	7.4%	11	25.6%
Caseload (n=96)						
0-6 per year (n=23)	6	23.1%	2	7.4%	15	34.9%
7-20 per year (n=38)	12	46.2%	11	40.7%	15	34.9%
21-50 per year (n=17)	4	15.4%	7	25.9%	6	14.0%
>50 per year (n=18)	4	15.4%	7	25.9%	7	16.3%
Assessment tool usage (n=96)						
Yes (n=44)	7	26.9%	15	55.6%	22	51.2%
No (n=51)	18	69.2%	12	44.4%	21	48.8%
No response (n=1)	1	3.8%	0	0.0%	0	0.0%

* Percentages are within discipline

Analysis

Reponses to closed form items were exported from SurveyMonkey to SPSS for quantitative analysis. Narrative responses to the open-ended questions were qualitatively analyzed for key themes and explanatory insights.

RESULTS

Participant Demographics

In total we received 302 responses, of which 74 were not usable because the respondent had completed less than 60% of survey items. Among the remaining 228 respondents, 43 were physical or occupational therapists, 26 were architects, and 27 were contractors from regions throughout the United States.

Continuing Education

More than 75% (n=33) of therapists reported attending at least three continuing education programs related to home modifications. Approximately 85% of the architects (n=22) and contractors (n=23) reported attending at least three continuing education programs related to home modifications.

Advanced Certifications

A majority of respondents in each discipline possessed at least one advanced professional certification related to home modifications: 74% of the responding therapists, 93% of the contractors, and 58% of architects. Among the certifications reported, the Certified Aging-in-Place Specialist (CAPS) was most prevalent for each of the three disciplines: 28/41 responding therapists, 18/25 responding contractors, and 8/26 responding architects. In addition, 8 contractors, 6 therapists, and 3 architects reported earning the Executive Certification in Home Modifications (ECHM). The Assistive Technology Professional (ATP) certification had been earned by 5 therapists, 2 contractors, and 1 architect.

Caseload

Among therapists surveyed, 65% (n=28) participated in at least 1-2 home modification cases per month. Among architects surveyed, 77% were involved with at least 1-2 cases or more per month. Among contractors, over 92% were involved with at least 1-2 cases per month.

Ages Groups Served

Two-thirds of therapists (n=28) reported working with older adults (>65 years) “most of the time”, and all worked with adults (21-65 years) at least “some of the time”. Almost two-thirds (n=25) of the therapists reported “almost never” rendering home modification services to children under 21. One-half (n=13) of the architects worked “most of the time” with adult clients, and approximately 80% worked with children (n=20) and older adults (n=21) at least “some of the time”. Among contractors, over 60% (n=16) worked with older adults “most of the time”, and approximately one-half worked with children and adults at least “some of the time”.

Funding Sources

Participants rated their funding sources on a three-point scale associated with frequency (1=almost never, 2=some of the time, 3=most of the time). Private funding was most frequently reported by all three groups, with 62% of contractors and 43% of therapists and architects reporting it as their funding source “most of the time”. Among therapists, the Veteran’s Administration (n=16) and State Medicaid waiver programs (n=20) were used at least “some of the time”. Among contractors, the VA (n=20) and State waiver programs (n=19) were utilized at least “some of the time”. For architects, the most common funding sources used at least “some of the time” were State waiver (n=20) programs and insurance (n=15).

Assessment Tool(s)

Assessment tools were used by a majority of contractors (n=15/27) and therapists (n=22/43) and a minority of architects (8/26). Self-created assessment tools were used by the many respondents for each of the three groups: therapists (n=10), architects (n=8), and contractors (n=4). Standardized assessment tools were mentioned by a minority of participants. Four therapists reported using the SAFER (Safety Assessment of Function and Environment for Rehabilitation), three contractors and one therapist reported using the CASPAR (Comprehensive Assessment and Solution Process for Aging Residents).

Follow-Up

Participants used a four-point scale (1=rarely/never; 2=sometimes; 3=frequently; 4=almost always) to rate the frequency at which they conducted three types of follow-up activities:

(a) *Seeing the client's home after the modification is completed.* Sixteen of 41 responding therapists, 17/26 responding architects, and 14/26 responding contractors reported seeing the home "frequently" or "almost always" after completion of the modification.

(b) *Obtaining feedback on the client's satisfaction with your services*. Sixteen of 26 responding therapists, 16/26 responding architects, and 21/26 responding contractors obtained client satisfaction feedback "frequently" or "almost always".

(c) *Obtaining the impact of the modification on the client's functional independence or safety.* Twenty-five of 42 responding therapists, 14/26 responding architects, and 17/26 responding contractors reported obtaining the impact of modifications on functional independence or safety "frequently" or "almost always".

Service Delivery Challenges

In response to an open-ended question about the greatest challenges and/or barriers encountered in home modification projects, *funding limitations* were the most frequently reported service delivery challenge for therapists (58%) and contractors (52%) and the second most frequently reported challenge for architects (46%). Among architects, 50% reported *design and construction problems* as their biggest challenge.

Improving Quality of Services

Among therapists, 64% felt that *better understanding funding policies* would be "extremely helpful" toward improving their services, while 44% felt that *better outcome measurement tools* would be extremely helpful toward overall quality improvement. Many contractors (42%) and architects (39%) also indicated that *better understanding of funding policies* would be extremely helpful toward overall quality improvement.

DISCUSSION

This is the first study of home modification practitioners that explores insights regarding their expertise and service delivery experiences. The overall sample was geographically dispersed and currently active in providing services. All three participant groups reflected a high prevalence of continuing education experiences in home modification. Many had acquired advanced certifications in home modification, with the CAPS being most frequently reported among these. However, there is no consensus certification that is meeting the needs of all in the field. Anecdotally, practitioners described the CAPS program as inadequate for teaching individuals how to provide home modifications effectively.

In terms of service delivery, those who provide home modification services are similar to many peers in other areas of assistive technology. Due to the multiplicity of funding options, there is often confusion about the services and interventions that will and will not be funded. Most practitioners do not use a standardized assessment tool, choosing instead to create their own. Anecdotally, respondents reported that existing standardized assessments are often "lengthy" and "time-consuming". In a similar manner, practitioners in all three disciplines do not routinely collect follow-up data on the impact of their home modification services. Although many are obtaining verbal feedback, this is not typically being documented in a manner that will establish a base of outcomes evidence that can be utilized by others in the field.

Limitations

Although we attempted to gather the largest possible sample, the data and interpretation of results should be contextualized by the relatively small sample size.

Future Research

There is a clear need for clarification of funding policies across all funding agencies involved with supporting home modification services and interventions. As a field of practice, there needs to be a concerted effort to arrive at a consensus expectations for advance certification, as well expectations for assessment practices. In addition, a concise outcomes measurement tool is needed to support more regular capture of home modification impacts.

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