


Academic Paper

Communication Modalities and their Perceived Effectiveness in Coaching for Individuals with Attention-Deficit/Hyperactivity Disorder (ADHD)

Elizabeth Ahmann  (Maryland University of Integrative Health, Health and Wellness Coaching Department)

Micah Saviet (University of Maryland Baltimore School of Social Work)

Abstract

Coaching for individuals with Attention-Deficit/Hyperactivity Disorder (ADHD), an emerging coaching subspecialty, has demonstrated efficacy both as a stand alone behavioral support and as part of multimodal interventions. Little research to date has examined processes involved in ADHD coaching. This mixed-methods study: (1) reviewed extant literature on ADHD coaching outcomes for coaching communication modalities used; and (2) surveyed ADHD coaches to explore (a) frequency of use and perceived efficacy of varied modalities and (b) coaches' views of benefits and drawbacks of each. Results provide a preliminary suggestion of the effectiveness of varied communication approaches and suggest directions for future research.

Keywords

coach, communication, effectiveness, ADHD, Attention-Deficit/Hyperactivity Disorder,

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Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) is a brain disorder characterized by symptoms of inattention (difficulty staying focused) and/or hyperactivity-impulsivity affecting an individual's functioning and/or development (National Institute of Mental Health, 2016). Coaching focused on individuals with ADHD is increasingly valued for providing support to individuals both on its own (e.g., Schrevel, Dedding, & Bourse, 2016) and as part of a multimodal approach to intervention (e.g., Barkley, 2015; Kooij, 2013; Murphy, 2015; Pehlivanidis, 2012; Pfiffner & DuPaul, 2015; Prevatt & Levrini, 2015; Sarkis, 2014).

Coaching for individuals with ADHD is an emerging subspecialty in the coaching field, built on a foundation of life coaching and requiring both specialized education in ADHD and training in specific coaching skills for that population. While there is no single definition of this specialized type of coaching (hereinafter referred to as ADHD coaching) the following two definitions capture the focus of this subspecialty:

- ADHD Coaching is a collaborative, supportive, goal-oriented process in which the coach and the client work together to identify the client's goals and then develop the self-awareness, systems, skills, and strategies necessary for the client to achieve those goals and full potential (ADHD Coaches Organization; <https://www.adhdcoaches.org/>)
- ADHD coaching is a specialty skill set that empowers clients to manage their attention, hyperactivity, and impulsivity (Professional Association for ADHD Coaches; <https://paaccoaches.org/learn-about-adhd/>).

The ADHD Coaches Organization also outlines the following criteria for a “Professional ADHD Coach”:

In order to be recognized as a Professional ADHD Coach, one must either have completed a fully integrated ADHD Coach Training Program, or completed at least 60 hours of ICF-compliant life coach training plus at least 35 hours of ADHD coach training from recognized sources. (<https://www.adhdcoaches.org/policies/adhd-coach-training-programs/>)

To date, 19 studies examining ADHD coaching outcomes have been reported (Ahmann, Saviet, & Tuttle, 2017; Ahmann, Tuttle, Saviet, & Wright, 2018) as well as two studies directly exploring the processes involved in ADHD coaching (one examining between-session “assignments” and, another, client motivation and goal completion; Prevatt, Lampropoulos, Bowles, & Garrett, 2011; Prevatt et al., 2017). However, no study of ADHD coaching has directly examined coaching communication modalities (“delivery” methods) used (e.g., in person, telephone, videoconferencing, or a combination) or their effectiveness. Given the attentional, planning, and time management challenges of this client population, choice of coaching modality may be of particular importance.

Background

“Telepsychiatry” treatment for ADHD is being used as one way to address lack of access to specialty psychiatric care in various geographic areas. This modality was being implemented as early as 2010, and at that time, ADHD was the most common disorder being treated via telepsychiatry (Palmer et al., 2010). Research on telepsychiatry has demonstrated provider and client satisfaction and beneficial outcomes (Myers, Vander Stroup, Zhou, McCarty, Katon, 2015; Palmer et al., 2010; Rockhill, Tse, Fesinmeyer, Garcia, & Myers, 2016). For example, Rockhill et al. (2016) found that a telepsychiatry service delivery mode - utilizing six video conference sessions in which a psychiatrist partnered with a child's caregiver in decision making, followed by caregiver behavioral training in the local community - demonstrated both high fidelity to evidence-based protocols and significantly greater effectiveness in symptom reduction as compared to a control group in which a single “telepsychiatrist” consultation was followed by ongoing care with a primary care provider.

A 2005 literature review of 35 studies of counseling services delivered at a distance, using varied technologies including phone and videoconferencing, reported mostly positive outcomes and significant client improvement across a variety of measures (Mallen, Vogel, Rochlen, & Day, 2005). Kanatouri and Geissler (2017) reported on several studies of telephone-based mental health interventions indicating client satisfaction with both the process and outcomes of these interventions, and equal effectiveness to comparable in-person interventions.

As early as 2009, a trend towards coaches also using “distance” methods in working with clients was reported (Peltier, 2009). More recently, in both 2012 and 2016, surveys by the International Coach Federation found that telephone was the most used coaching communication modality in the United States (ICF, 2012; ICF, 2016).

While there are some contradictory results (e.g., see overview in Kanatouri & Geissler, 2017; Palmer et al., 2018; Steventon, 2013), numerous studies report that telephone coaching is associated with positive coach and client perceptions, and positive outcomes (e.g., Ghods, 2009, as cited in Kanatouri & Geissler, 2017; McLaughlin, 2013). Many coaches feel that telephone coaching offers as good or better quality relationships as in-person coaching (e.g. Berry, Ashby, Gnilka, & Matheny, 2011), and many clients find it useful and satisfying, and in some circumstances even preferable to in-person coaching (see Kanatouri & Geissler, 2017). Numerous studies have reported positive behavioral, psychosocial, physiological, and/or health outcomes with telephone coaching (e.g., Dennis et al., 2013; Harter et al., 2016; Hutchison & Breckon, 2011; Kivelä, Elo, Kyngäs, & Kääriäinen, 2014; McCusker et al., 2012; Swoboda, Miller, & Wills, 2017). Among studies of health coaching by telephone, some health conditions appeared more amenable to benefit than others (Palmer et al., 2018).

Among studies of coaching that have compared outcomes of in-person intervention and telephone coaching, sometimes with an added in-person component, telephone coaching has compared favorably (e.g., Munoz Obino, Pereira & Caron-Lienert, 2017; Sforzo, Kaye, Avers, Talbert, & Hill, 2014).

The limited research to date on coaching by videoconference has also demonstrated positive outcomes (e.g. Alley, Jennings, Plotnikoff, & Vandelanotte 2016; Alencar, et al., 2017, Das et al., 2017), although some studies have used it in conjunction with other educational or self-monitoring interventions. In this regard, Alley et al. (2016) found only small improvements when video-coaching was added to computer-tailored advice in a physical activity intervention. A study comparing in-person and video-conference coaching for obesity demonstrated similar positive outcomes in the two groups (Das et al., 2017).

Use of a combination of in-person and telephone coaching is reported to be common (Munoz Obino et al., 2017) and may increase client motivation (Charbonneau, 2002, as cited in Kanatouri & Geissler, 2017; Kivelä et al., 2014); a number of studies have reported on this combined approach, demonstrating positive outcomes (e.g., Munoz Obino et al., 2017). Success has also been reported with interchangeable use of telephone and videoconference coaching (Pande et al., 2015; Dennis et al., 2013). At least one study has examined a combination of telephone and text-based coaching (Geissler, Hasenbein, Kanatouri, & Wegener, 2014) finding positive results. Additionally, email coaching has demonstrated positive outcomes (Bus et al., 2018), and there is a recent trend toward “coaching” through use of mobile digital systems and apps (Klaassen, Bul, van der Burg, Kato, & Di Bitonto, 2018).

Despite the existing research to date on varied methods of coaching delivery, no study has specifically examined communication modalities used in coaching for individuals having ADHD.

Methods

This mixed methods exploratory study of communication modalities used in ADHD coaching was comprised of three separate components: 1) an examination of communication modalities used in the literature exploring outcomes of ADHD coaching; 2) a survey of ADHD coaches to identify the frequency of use of varied communication modalities and their perceived effectiveness; and 3) as part of the survey, an exploration of qualitative data on coaches’ perceived benefits and drawbacks of varied modalities. This report addresses the first two components.

Literature Review

A recent literature review (Ahmann et al., 2017; Ahmann et al., 2018) identified 19 studies of ADHD coaching outcomes, 13 of which reported outcomes of coaching for individuals (as distinct from groups) with ADHD. Each of these studies found improvement in ADHD symptoms and/or Executive Functioning (EF), and some found other benefits as well. Study designs, coach training, age groups studied, and statistical significance of study findings were varied. The authors of the present study (EA and MS) independently reviewed these 13 studies to identify the communication modality(ies) used both in coaching sessions and for between-session accountability check-ins, a common feature used in ADHD coaching. An inter-rater reliability of 94.8% was achieved, and discrepancies were resolved by joint re-examination of the study reports in question.

Survey: Quantitative and Qualitative

IRB approval was obtained for a survey of self-identified ADHD coaches. Informed consent was a prerequisite for participation in the 57-question anonymous online survey, comprised of both quantitative and qualitative questions. The survey was administered via SurveyMonkey and took participants an average of 11 minutes to complete. Survey questions gathered descriptive information about the coaches as well as data on the frequency of use of the following communication modalities: only in-person, only by telephone, only by videoconferencing, and by a combination of approaches. Seven-point Likert scales (1 = “not at all effective”; 7 = “completely effective”) were used to measure coaches’ perceived effectiveness of each modality. Qualitative questions were used to explore perceived benefits and drawbacks of each modality. Finally, the survey included several quantitative and a qualitative questions about between-session coach-client communication.

Box 1

Calling all ADHD Coaches!

Your voluntary participation is needed for a brief, anonymous online survey to explore methods of ADHD coaching (e.g. in-person, phone, videoconferencing).

To complete the survey, please visit [HERE](https://www.surveymonkey.com/r/adhdcoach)
<https://www.surveymonkey.com/r/adhdcoach>

The survey does not ask for information about individual clients. Your help will be much appreciated and will contribute important information for advancing the field of ADHD Coaching. You'll also have a chance to win an Amazon gift card!

ACO is not conducting this study, but is advertising it for the researchers.

For any questions, contact:
ADHDCoachingResearch@gmail.com
Feel free to share this survey invitation with other ADHD Coaches!

Sample Recruitment

An attempt was made to obtain as large and broad a convenience sample of self-identified ADHD coaches as possible to participate in the survey. To this end, coaches were recruited over an 11-week period in the Fall of 2018 through the website and at least weekly through postings on the varied social media platforms (listserv, newsletter/blog, Facebook, and Twitter) of the ADHD Coaches Organization (ACO). (See Box 1 for an example of a social media post.) ACO is the single largest organization of ADHD coaches, with a social media presence reaching numbers significantly beyond its membership. Additionally, during week nine of the data collection, flyers inviting participation in the online survey were distributed at the ADHD Professionals Institute/International ADHD Conference, which draws large numbers of ADHD coaches. Coaches were also invited to share the survey invitation with colleagues. Additional efforts to recruit a large sample size included: suggesting that the study would be a worthwhile contribution to research on ADHD coaching; informing potential participants of its general purpose; indicating that the survey was anonymous; and expressing that there was no personally identifying data collected. Furthermore, participants were offered the optional opportunity to enter a random drawing for one of three \$20 Amazon gift cards after completing the survey.

Data Analysis

Several steps were taken to analyze quantitative survey data. Correlations between select variables were explored. Also, one-way ANOVAs were used to determine whether there were statistically significant differences in the frequency with which coaches used the communication modalities studied, as well as their perceptions of the effectiveness of each modality.

Results

Literature Review

Communication modalities used in the 13 extant outcome studies of coaching for individuals with ADHD (Ahmann, Saviet & Tuttle, 2017; Ahmann, Tuttle, Saviet & Wright, 2018) were reviewed. Seven of the 13 studies of individual coaching reported use of in-person coaching, three indicated the use of telephone coaching, and three described a combination of modalities. Of those using a combination, two indicated use of in-person or telephone coaching, and one used “individualized combinations of face-to-face, email, and/or phone contacts” (Parker & Boutelle, 2009, p. 206). In the report of this particular study, it was difficult to determine whether email and phone were used for appointments or, instead, only for between-session check-ins. None of the 13 studies utilized video conferencing as a method of coaching. Because of the varied study designs, numbers of participants, and outcome measures in these 13 studies, a direct comparison of outcomes of phone and in-person coaching among these studies was not possible. Six of the 13 studies reported on modality used for between-session communication: either phone or email (n=3), or phone, email or text (n=3).

Survey (Quantitative Data)

One hundred and seventeen coaches participated in this survey of coaching communication modalities. Among individuals beginning the survey (117), the completion rate was 74%. However, response rates varied by question, as not every question applied in all circumstances, so completing all questions was not necessary for the survey to yield usable and useful data. The completion rate for individual questions varied and was sometimes higher than 74%.

Table 1: ADHD Coach Characteristics

Coach Characteristic (Respondents)	N (%)
Total survey respondents	117
ADHD coach credentials	
Coach credentials ^a (n=67)	49 (73%)
Meets ACO ADHD coach criteria ^b (n=86)	75 (87%)
Meets PAAC ADHD coach criteria ^c (n=86)	84 (98%)
Meets both ACO & PAAC criteria ^{b,c} (n=86)	71 (61%)
Numbers of years as ADHD coach (n=86)	
<1 year	6 (7%)
1-4 years	21 (24%)
5-10 years	31 (36%)
>10 years	28 (33%)
Occupational status (n=87)	
Full-time	41 (47.13%)
Part-time	46 (52.87%)
Geography (n=86)	
Urban	20 (23.26%)
Suburban	54 (62.79%)
Rural	12 (13.95%)
Type of coaching clients ^d (n=116)	
Individuals	115 (99%)
Families	48 (41%)
Groups	28 (24%)

Notes:

^a 48 respondents reported having credentials from one or more external credentialing body; additional coaches hold credentials only from coach training programs.

^b The ADHD Coaches Organization (ACO) defines a professional ADHD coach at: <https://www.adhdcoaches.org/policies/adhd-coach-training-programs/>

^c The Professional Association of ADHD Coaches (PAAC) defines ADHD coaching at: <https://paaccoaches.org/learn-about-adhd/>

^d Some coaches work with more than one client arrangement.

Table 2: Client Characteristics of ADHD Coaches Surveyed

Client Characteristics	Respondents N (%)	Client N (%)
Age of clients coached	100	1,066 ^{a,b}
Grades 1-8	37 (37%)	88 (8%)
Grades 9-12	48 (48%)	136 (13%)
College students	62 (62%)	231 (22%)
Graduate students	37 (37%)	44 (4%)
Young adults (not in school)	32 (32%)	52 (5%)
Adults	82 (82%)	461 (43%)
Older adults	32 (32%)	54 (5%)
Frequency of coaching sessions by client	101	1,063 ^b
More than once a week	46 (46%)	41 (4%)
Once a week	89 (88%)	665 (63%)
Once every other week	59 (58%)	163 (15%)
Once a month	33 (33%)	41 (4%)
Variable	40 (40%)	132 (12%)

Notes:

^a The number of clients per coach varied: range from 1-30; mean of 9; mode of 8.

^b This total differs from the 964 reported in Table 2, likely due to varied numbers of respondents for different survey questions.

Coach and client characteristics

Characteristics of the survey respondents are detailed in Table 1. Forty-eight (41%) of the coaches reported working with families, 28 (24%) with groups, and overall 115 (99%) of coaches reported working with individual clients. As the numbers indicate, some coaches worked with individuals as well as families and/or groups. However, this survey primarily focused on the use of specific coaching communication modalities with individual clients. Table 2 describes individual client characteristics reported by participating coaches; of note is the broad age range. Once weekly coaching was the most commonly reported session frequency.

Use of communication modalities

This survey examined use of the following communication modalities among coaches working with clients individually: in person, telephone, videoconference, and a combination approach. Many coaches reported use of more than one modality depending on various factors. As indicated in Table 3, a slightly higher number of coaches reported using telephone (61 of 93) than in-person (59 of 93) as a communication modality with individual clients. Fewer reported using videoconference (51 of 93) or a combination of modalities (34 of 93).

Table 3 also reports the number of clients that coaches worked with using each of these modalities. Although more coaches used telephone than other modalities, in-person was the communication modality coaches used with the highest average number of clients (6.17). Phone and videoconference were used with approximately the same average number each (4.48 and 4.56, respectively); and a combination of modalities was used with the lowest (3.07). Overall, there was a statistically significant difference between the average number of clients that coaches worked with using each of the different modalities, as determined by a one-way ANOVA ($F(3, 201) = 3.110, p = .03$). The effect was not large enough to result in significant post-hoc contrasts.

Table 3: Number of Individual Clients by Coaching Communication Modality^a

Communication Modality	Respondents	Individual clients (%)	Mean	Variance	Mode	Range
Total individual clients coached	93	964 ^b				
In person only	59	364 (37%)	6.17	33.63	1	1-28
Telephone only	61	274 (28%)	4.48	26.53	1	1-30
Videoconference only	51	232 (24%)	4.56	17.69	2	1-20
Combination approach	34	105 (10%)	3.08	9.88	1	1-15

Note.

^aThere is a significant difference in the average number of clients that coaches works with using each modality, as determined by a one-way ANOVA, $F(3, 201) = 3.110, p = .03$.

^b964 is the denominator in calculating percentages by approach. This total differs from the 916 reported in Table 1, likely due to varied numbers of respondents for different survey questions.

Factors associated with use of modalities

The number of years a coach had worked with ADHD clients had a statistically significant positive correlation with the number of clients they coached by phone ($r(79) = .33, p < .01$); for other modalities, the correlations were close to zero and non-significant. Using one-way ANOVAs, no statistically significant differences were found between full-time and part-time coaches' use of each

communication modality. However, a statistically significant correlation ($p < .05$) was noted between the total number of clients a coach worked with and the use of each method.

Reasons for choice of modality

As illustrated in Figure 1, when coaches were offered six options, not mutually exclusive, indicating reasons for choice of communication modality, “geographic necessity (distant clients)” was the most common reason identified for choosing a specific approach. Additionally, client factors - i.e., “age of client (younger/school-age),” “client preference due to time management/time saving,” and “client prefers the approach for other reasons” - were much more common reasons for choice of communication modality than were coach considerations. Coach considerations included “personal (coach) time management,” “office space (availability or lack of)”. When coaches met with clients in-person, the coach’s office was the most commonly used location.

Perceived effectiveness of modalities

When responding to questions about their perceived effectiveness of various coaching modalities (in person, telephone, videoconference, and a combination), over 20% of coaches who responded about each particular modality perceived it as “completely effective” (range 20-27%). Each modality was perceived by between 60% and 78% of coaches as either “very” or “completely effective” (i.e., a score of six or seven on a seven-point Likert scale). No coaches reported any modality as “not at all effective.” As indicated in Table 4, while differing numbers of coaches reported on perceived effectiveness for each communication modality, on average, coaches perceived each modality as “very effective.” Using a one-way ANOVA, no statistically significant difference was found among coaches’ perceived effectiveness of the varied communication modalities ($F(3,261) = 1.642, p = .18$).

Figure 1: Percentage of Coaches by Factors Affecting Choice of Communication Modality

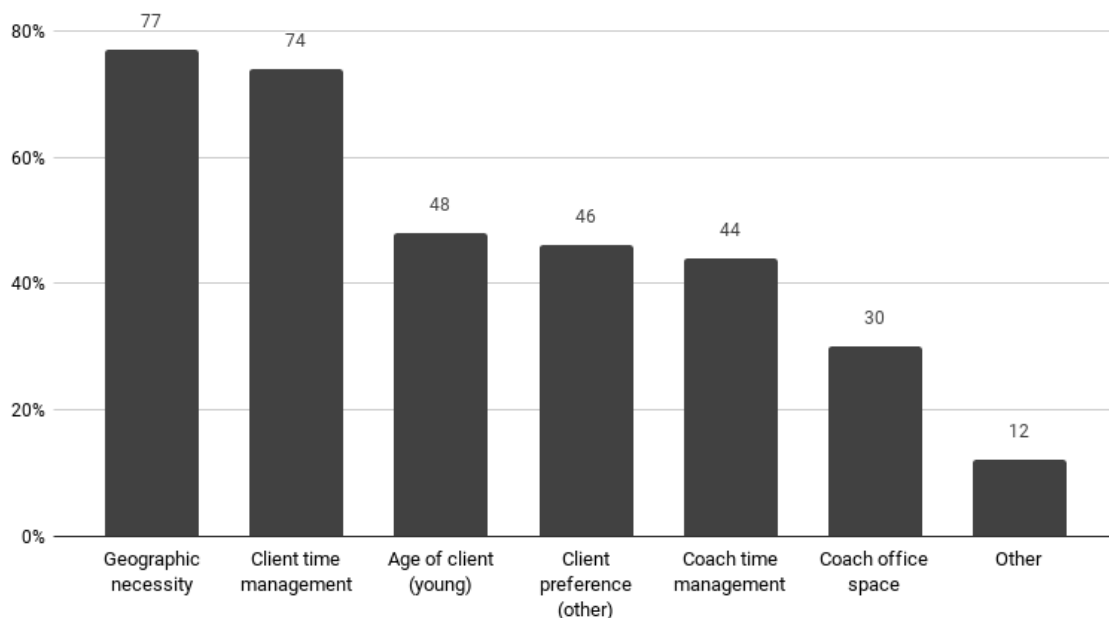


Table 4: Perceived Effectiveness of Coaching Modalities Used with Individual Clients^a

Communication Modality	Respondents	Mean ^b
In person only	75	5.75
Phone only	75	5.75
Videoconference only	70	5.94
Combination approach	45	6.13

Notes:

^a There was no statistically significant difference in perceived effectiveness of coaching modalities, as determined by a one-way ANOVA, $F(3, 261) = 1.642, p = .18$.

^b 7-point Likert scale (1 = not at all effective; 7 = completely effective)

Use of modality and perceived effectiveness

For coaches reporting use of a specific modality, the number of clients a coach worked with per week using each modality correlated positively with perceived effectiveness of that modality, although the correlation was only statistically significant for telephone ($r(59) = .36, p < .01$). However, when coaches were included in the analysis whether or not they used a given modality with clients, the number of clients coached in a week then had a statistically significant correlation with perceived effectiveness for each modality: in-person ($r(77) = .25, p < .05$); phone ($r(71) = .38, p < .01$); videoconference ($r(65) = .32, p < .01$); and a combination ($r(41) = .30, p < .05$).

There was also a positive correlation between the total number of number of clients a coach worked with per week, using any modality, and perceived effectiveness of each modality, although the correlation was only statistically significant for telephone ($r(59) = .34, p < .01$) and videoconference ($r(49) = .40, p < .01$) and was near zero for a combination approach.

Between session check-ins

Almost all coaches who responded to the survey questions about between-session contact with clients reported having such contact (97-98%), most commonly reporting having such check-ins at a variable frequency (58%), as opposed to at regular intervals. The most common communication modality coaches reported using for between-session contact was text messaging (85%), followed by email (72%), and, less commonly, other modalities.

Discussion

This report focuses on 1) a review of coaching communication modalities utilized in the ADHD coaching outcomes research to date and 2) an examination of the quantitative data from our survey of ADHD coaches about coaching communication modalities. The qualitative data will be examined and reported separately.

Frequency of Use of Varied Modalities

Among the thirteen studies to date examining outcomes of ADHD coaching, the most frequently used communication modality in use was in-person, followed by an equal use of telephone and a combination of methods; videoconferencing was not used in any of these studies. Each of these studies found positive outcomes of the coaching.

The survey used in this study examined use of the following communication modalities among ADHD coaches working with individual clients: in person, telephone, videoconference, and a combination. As distinct from reports of the International Coach Federation that the most common communication modality used by coaches in the United States is telephone (2012; 2016), in-person was the modality coaches reported using most frequently (38%) when working with clients having

ADHD. This is followed in order by telephone (28%), videoconference (24%), and a combination approach (10%).

A number of studies have examined comparative outcomes of different coaching communication modalities, for example in-person compared to telephone (Berry et al., 2011; Munoz Obino, Pereira, & Caron-Lienert, 2017; Sforzo, Kaye, Avers, Talbery & Hill, 2014) and in-person compared to videoconference (Das et al., 2017). With some exceptions, comparable outcomes have been demonstrated in these studies. To date, however, no study of ADHD coaching has compared outcomes related to the use of differing communication modalities.

Choice of Modality

Although in-person was the communication modality most frequently used by coaches in this study, paradoxically, geographic consideration was the reason the coaches identified as most frequently using for choice of a specific communication modality. Communication modalities enabling coaching at a distance make ADHD coaching services available to clients no matter where they are located. Interestingly, this finding is consistent with the rise of telepsychiatry treatment for ADHD (Rockhill et al., 2016).

Little prior research has examined the reasons coaches choose particular communication modalities when working with clients (see Frazee, 2008, as cited in Kanatouri & Geissler, 2017). In this survey, in addition to geography (distance) as a reason for choice of modality, coaches reported client considerations - i.e., age, client time management, age and preference for other reasons - as much more frequent reasons for choice of modality than coaches' personal considerations - e.g., personal time management or office space. This is perhaps not surprising given the collaborative, client-centered nature of coaching (see Bachkirova & Borrington, 2018; NBME, 2019, p. 9; Wright, 2014).

It is unclear why the number of years a coach has worked with ADHD clients has a statistically significant positive correlation with the number of clients coached by phone, but not by other modalities. One possible hypothesis is that the longer individuals have been coaching, the more likely they are to have been trained to coach by phone than by videoconference, a newer technology. The fact that number of years a coach has been working with individuals is not correlated with in-person coaching might possibly be explained by the fact that many coach training programs are, themselves, offered virtually, and, thus many coaches learn to coach via distance modalities; until recently, this was most often telephone. Whatever the explanations for these phenomena, Kanatouri and Geissler (2017) suggest that coaches may benefit from instruction in optimal strategies to use when coaching with new modalities. Mallen, Vogel & Rochlen (2005) review strategies useful for psychologists using varied modalities, many of which may be adapted for use in coaching.

Positive outcomes have been reported in a study of coaching that examined email as a communication modality (Bus et al., 2018). Several other studies have examined coaching via use of asynchronous text messaging, or via texting approaches in combination with audio or video approaches (Geissler, et al., 2014; Kanatouri & Geissler, 2017). The present study did not examine coaching via text or email, although, in the qualitative data gathered via the survey, one coach reported using only written communication, indicating the view that it better supported client accountability. Additional qualitative data from this study, exploring coaches perceptions of benefits and drawbacks of each communication modality examined, will be reported separately.

Perceived Effectiveness of Communication Modalities

In terms of coaches' perceived effectiveness of each communication modality (in person, telephone, videoconference, and a combination), on average, the coaches surveyed in this study

perceived all four modalities as “very effective.” This study’s exploration of coaches’ perceptions of the effectiveness of varied communication modalities provides a preliminary exploration of the comparative effectiveness of ADHD coaching by modality. While perceptions of effectiveness have not been studied elsewhere for all of these modalities, several studies have demonstrated positive coach perceptions of use of telephone as a communication modality (e.g. Berry and Ashby, 2011; McLaughlin, 2013); positive client perceptions of telephone coaching have also been reported (e.g. Ghods, 2009, as cited in Kanatouri & Geissler, 2017).

Of course, positive coach perceptions of the effectiveness of varied communication modalities do not necessarily indicate positive client perceptions; nor do they indicate the presence of measurable beneficial outcomes. Because this study did not measure coaching outcomes related to varied communication modalities, it cannot indicate overall or comparative effectiveness of these modalities. At the same time, several factors, taken together with the findings of this study offer a preliminary suggestion that in-person, telephone, videoconference and a combination of modalities might all be effective in coaching clients with ADHD. For example, in addition to the coaches’ perceptions of effectiveness identified in this study, thirteen studies of coaching for ADHD measured and reported beneficial outcomes with in-person, telephone or a combination of communication modalities (e.g., Dawson & Guare, 2012; Evans et al., 2014; Field et al., 2013; Maitland et al., 2010; Merriman & Coddington, 2008; Parker & Boutelle, 2009; Parker et al., 2011; Parker et al., 2013; Prevatt & Yelland, 2015; Reaser, 2008; Richman et al., 2014; Swartz et al., 2005; Wentz et al., 2012). Further, with some exceptions, the broader literature on outcomes related to the use of varied coaching communication modalities, including studies of health coaching, has generally found measurable positive outcomes.

As examples of this broader literature, numerous studies on coaching in general, and some on health coaching, specifically, have demonstrated positive outcomes with telephone coaching (e.g., Dennis et al., 2013; Frazee, 2008, as cited in Kanatouri & Geissler, 2017; Geissler et al., 2014; Kivelä et al., 2014; McCusker et al., 2012; Swoboda, Miller, & Wills, 2017). Fewer studies have explored outcomes of coaching by video conference; however, those that have done so demonstrate positive outcomes (e.g., Alley et al., 2016; Alencar, et al., 2017). Additionally, some researchers have suggested, and found, that a combination of methods - for example, an initial in-person appointment followed by the use of other modalities - is effective (e.g., Charbonneau, 2002, as cited in Kanatouri & Geissler, 2017; Dennis et al., 2013; Geissler et al., 2014; Kivelä et al., 2014; Munoz Obino et al., 2017; Pande et al., 2015).

In this study, the number of clients a coach worked with per week using a given modality correlated positively with perceived effectiveness of that method. This may not be surprising. Coaches might understandably make more frequent use of a modality they feel is most effective. It is also possible that coaches may have a bias toward perceiving as most effective whatever modality they preferentially use for other reasons (e.g. geographic distance, convenience). McLaughlin (2013, p.1) suggests that a coach’s satisfaction with a modality can be “complex and fluid” and may bear a relationship to their proficiency with the modality. Although this survey was not able to distinguish the reason(s) underlying the relationship between use of a modality and perception of its perceived effectiveness, the most frequent reasons coaches reported for selection of a modality were geography and other client-related factors (e.g. client time management, client age, and client preference for other reasons) rather than their own convenience (time management, office space).

Between-Session Communication

One study specifically examining the use of between-session contact for coaching with college students has identified between-session contact as an important aspect of ADHD coaching (Prevatt et al., 2011). In the current survey, nearly all of the coaches who responded about between-session contact with clients reported having such check-ins, over half of them reporting use of such contact at a variable frequency. The most common communication modality coaches reported using for

between-session contact was text messaging, followed by email, and, less commonly, other modalities. In contrast, studies to date of ADHD coaching outcomes that have mentioned between-session contact identified the use of phone or email more commonly. Some of these studies date back more than a decade, and the relatively newer availability of text messaging as a communication modality may explain the difference in findings regarding the most common modality.

Strengths and Limitations

Strengths

This study contributes new information to the coaching research literature in several realms. First, although it is not possible to be certain that survey respondents were a fully representative sample of ADHD coaches, this is the first study to report descriptive characteristics of a broad, albeit convenience, sample of self-identified ADHD coaches. Second, this is the first study to specifically examine the frequency of use of various communication modalities in ADHD coaching, thus establishing a preliminary knowledge base for both researchers and coaching practitioners. Also, no prior study of ADHD coaching has mentioned or explored the use of videoconference as a communication modality. Additionally, this study's exploration of coaches' perceptions of the effectiveness of varied communication modalities provides a preliminary exploration of the comparative effectiveness of ADHD coaching by modality, a topic that has not previously been explored in the research literature. Finally, this study's examination of reasons for coaches' choice of communication modality also contributes to the broader coaching literature, which has included little exploration of this important aspect of coaching.

Limitations

Most of the potential sources of bias in this study are common when using convenience samples and survey methodologies. Despite an attempt to encourage as many ADHD coaches as possible to participate in the study survey, no official count of ADHD coaches exists, and, consequently, it is not possible to assess what portion of the full population was sampled in the survey; for this reason, coverage error is a potential cause of bias. As with any convenience sample, the results reported could over- or under-represent varied coach characteristics and the use of different communication approaches.

Additional limitations common to survey research include the following: the possibility of non-response error; measurement error due to possible respondent misinterpretation of questions, despite an effort at clear construction; and/or respondent bias. Also, an inability to distinguish non-response from not-applicable for several questions, since skip logic was under-used, complicates the reporting of some of the data from this survey.

In terms of gaining a broader understanding about effectiveness of coaching communication modalities, this survey did not obtain clients' points of view regarding effectiveness of varied coaching modalities. Additionally, it lacks the increased rigor that would exist with use of a pre-post design and use of outcome measures for effectiveness. As a result of the varied potential limitations of this study, caution is necessary in interpretation and generalization of the study results.

Conclusions

ADHD coaches use a variety of communication modalities for coaching sessions, most frequently meeting with clients in-person and least commonly using a combination of modalities. Coaches also perceive all of the following four modalities to be effective in use with clients: in-person, telephone, videoconference and a combination approach. The choice of modality is most commonly driven by geographic considerations, and client factors impact the choice more often than coach-specific factors. Mallen, Vogel & Rochlen (2005) review strategies useful for psychologists using varied modalities, many of which may be adapted for use in coaching.

Although this study did not examine actual outcomes of coaching with each modality, several factors, taken together, suggest that in-person, telephone, videoconference and a combination of modalities may, in fact, all be effective in coaching clients with ADHD. These include, in this study, coaches' perceptions of the effectiveness of each modality study; in the ADHD coaching outcomes literature, findings of beneficial outcomes with ADHD coaching using in-person, telephone and a combination of modalities; and in the broader coaching literature, reports of generally positive outcomes with use of telephone, videoconference, and a combination of modalities. Research examining this possibility would be beneficial.

Research on outcomes of ADHD coaching via videoconferencing is lacking and would contribute to the literature. Research on ADHD or other coaching using synchronous or non-synchronous written communication (e.g. text messaging) could be explored as well. Research on client perceptions of the use of varied modalities would broaden understanding of the impact of these approaches. Further study on the reasons coaches select specific communications, and client or other factors that might beneficially be considered in that choice would be valuable. Additionally, research using objective outcome measures, as well as directly comparing different communication modalities, is needed in order to draw definitive conclusions about the comparative effectiveness of each modality in supporting optimal client outcomes in ADHD coaching.

References

- Ahmann, E., Saviet, M. and Tuttle, L. (2017) 'Interventions for ADHD in children and teens: A focus on ADHD coaching', *Pediatric Nursing*, 43(3), pp.121-131.
- Ahmann, E., Tuttle, L., Saviet, M. and Wright, S. (2018) 'A descriptive review of ADHD coaching research: Implications for college students', *Journal of Postsecondary Disability and Education*, 31(1), pp.17-39. Available at: <https://www.ahead.org/professional-resources/publications/jped/archived-jped/jped-volume-31>.
- Alencar, M.K., Johnson, K., Muller, R. and et al, (2017) 'The efficacy of a telemedicine-based weight loss program with video conference health coaching support', *Journal of Telemedicine and Telecare*, 25(3), pp.151-157. DOI: [10.1177/1357633X17745471](https://doi.org/10.1177/1357633X17745471).
- Alley, S., Jennings, C., Plotnikoff, R.C. and Vandelanotte, C. (2016) 'Web-based video-coaching to assist an automated computer-tailored physical activity intervention for inactive adults: A randomized controlled trial', *Journal of Medical Internet Research*, 18(8). DOI: [10.2196/jmir.5664](https://doi.org/10.2196/jmir.5664).
- Bachkirova, T. and Borrington, S. (2018) 'The limits and possibilities of a person-centered approach in coaching through the lens of adult development theories', *Philosophy of Coaching: An International Journal*, 3(1), pp.6-22. DOI: [10.22316/poc/03.1.02](https://doi.org/10.22316/poc/03.1.02).
- Barkley, R.A. (eds.) (2015) *Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment* (4th edn.). New York: Guilford.
- Bartels, S.J., Pratts, S.I., Aschbrenner, K.A. and et al, (2015) 'Pragmatic replication trial of health promotion coaching for obesity in serious mental illness and maintenance of outcomes', *American Journal of Psychiatry*, 172(4), pp.344-352. DOI: [10.1176/appi.ajp.2014.14030357](https://doi.org/10.1176/appi.ajp.2014.14030357).
- Berry, R.M., Ashby, J.S., Gnilka, P.B. and Matheny, K.B. (2011) 'A comparison of face-to-face and distance coaching practices: Coaches' perceptions of the role of the working alliance in problem resolution', *Consulting Psychology Journal: Practice and Research*, 63(4), pp.243-253. DOI: [10.1037/a0026735](https://doi.org/10.1037/a0026735).
- Bus, K., Peyer, K.L., Bai, Y. and et al, (2018) 'Comparison of in-person and online Motivational Interviewing-based health coaching', *Health Promotion and Practice*, 19(4), pp.513-521. DOI: [10.1177/1524839917746634](https://doi.org/10.1177/1524839917746634).

- Das, S.K., Brown, C., Urban, L.E. and et al, (2017) 'Weight loss in videoconference and in-person iDiet weight loss programs in worksites and community groups', *Obesity*, 25(6), pp.1033-1041. DOI: 10.1002/oby.21854.
- Dennis, S.M., Harris, M. and Lloyd, J. (2013) 'Do people with existing chronic conditions benefit from telephone coaching? A rapid review', *Australian Health Review*, 37(3), pp.381-388. DOI: 10.1071/AH13005.
- Geissler, H., Hasenbein, M., Kanatouri, S. and Wegener, R. (2014) 'E-coaching: Conceptual and empirical findings of a virtual coaching programme', *International Journal of Evidence Based Coaching and Mentoring*, 12(2), pp.165-187. Available at: <https://radar.brookes.ac.uk/radar/items/585eb4f9-19ce-49e1-b600-509fde1e18c0/1/>.
- Härter, M., Dirmaier, J., Dwinger, S. and et al, (2016) 'Effectiveness of telephone-based health coaching for patients with chronic conditions: A randomised controlled trial', *PLoS One*, 11(9). DOI: 10.1371/journal.pone.0161269.
- Hutchinson, A.J. and Breckon, J.D. (2011) 'A review of telephone coaching services for people with long-term conditions', *Journal of Telemedicine and Telecare*, 17(8), pp.451-458. DOI: 10.1258/jtt.2011.110513.
- International Coach Federation (2012) *Global Coaching Study: Final Report*. Available at: www.coachfederation.org/coachingstudy2012.
- International Coach Federation (2016) *2016 ICF Global Coaching Study*. Available at: <https://coachfederation.org/research/global-coaching-study>.
- Kanatouri, S. and Geissler, H. (2017) 'Adapting to working with new technologies', in Bachkirova, T., Spence, G. and Drake, D. (eds.) *The SAGE Handbook of Coaching*. London: Sage, pp.713-728.
- Kivelä, K., Elo, S., Kyngäs, H. and Kääriäinen, M. (2014) 'The effects of health coaching on adult patients with chronic diseases: A systematic review', *Patient Education and Counseling*, 97(2), pp.147-157. DOI: 10.1016/j.pec.2014.07.026.
- Klaassen, R., Bul, K., van der Burg, G.J. and et al, (2018) 'Design and Evaluation of a Pervasive Coaching and Gamification Platform for Young Diabetes Patients', *Sensors*, 18(2). DOI: 10.3390/s18020402.
- Kooij, J.S. (2013) 'Pharmacological treatment of ADHD in adults', *European Psychiatry*, 28(suppl 1).
- Krosnick, J.A. (1991) 'Response strategies for coping with the cognitive demands of attitude measures in surveys', *Applied Cognitive Psychology*, 5(3), pp.213-236. DOI: 10.1002/acp.2350050305.
- Lin, W.C., Chien, H.L., Willis, G. and et al, (2012) 'The effect of a telephone-based health coaching disease management program on Medicaid members with chronic conditions', *Medical Care*, 50(1), pp.91-98. DOI: 10.1097/MLR.0b013e31822dcedf.
- Mallen, M.J. and Vogel, D.L. (2005) 'Introduction to the major contribution: Counseling psychology and online counseling', *The Counseling Psychologist*, 33(6), pp.761-775. DOI: 10.1177/0011000005278623.
- Mallen, M.J., Vogel, D.L. and Rochlen, A.B. (2005) 'The practical aspects of online counseling: Ethics, training, technology, and competency', *The Counseling Psychologist*, 33(6), pp.776-818. DOI: 10.1177/0011000005278625.
- Mallen, M.J., Vogel, D.L., Rochlen, A.B. and Day, S.X. (2005) 'Online counseling: Reviewing the literature from a counseling psychology framework', *The Counseling Psychologist*, 33(6), pp.819-871. DOI: 10.1177/001100000527862.
- McCusker, J., Cole, M., Yaffe, M. and et al, (2012) 'A feasibility study of a telephone-supported self-care intervention for depression among adults with a comorbid chronic physical illness in primary care', *Mental Health in Family Medicine*, 9(4), pp.257-273. PMID: 24294301.
- McLaughlin, M. (2013) 'Less is more: The executive coach's experience of working on the telephone', *International Journal of Evidence Based Coaching and Mentoring*, pp.1-13. Available at: <https://radar.brookes.ac.uk/radar/items/496377b3-7e90-4288-851e-f4d9a62fe79a/1/>.
- Miether, T.D. (1985) 'The validity and reliability of value measurements', *The Journal of Psychology*, 119(5), pp.441-453. DOI: 10.1080/00223980.1985.10542914.
- Muñoz Obino, K.F., Pereira, C.A. and Caron-Lienert, R.S. (2017) 'Coaching and barriers to weight loss: an integrative review', *Diabetes, metabolic syndrome and obesity: Targets and therapy*, 10, pp.1-11. DOI: 10.2147/DMSO.S113874.
- Murphy, K.R. (2015) 'Psychological counseling of adults with ADHD', in Barkley, R.A. (eds.) *Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment* (4th edn.). New York: Guilford, pp.741-756.
- Myers, K., Vander Stoep, A., Zhou, C. and et al, (2015) 'Effectiveness of a telehealth service delivery model for treating attention-deficit/hyperactivity disorder: a community-based randomized controlled trial', *Journal of the American Academy of Child & Adolescent Psychiatry*, 54(4), pp.263-274. DOI: 10.1016/j.jaac.2015.01.009.
- National Board of Medical Examiners (NBME) and the International Consortium for Health & Wellness Coaching (ICHWC) (2019) *Health & Wellness Coach Certifying Examination Content Outline with Resources*. Available at: https://www.nbme.org/pdf/hwc/HWCCE_content_outline.pdf.
- Palmer, M., Sutherland, J., Barnard, S. and et al, (2018) 'The effectiveness of smoking cessation, physical activity/diet and alcohol reduction interventions delivered by mobile phones for the prevention of non-communicable diseases: A systematic review of randomised controlled trials', *PLoS One*, 13(1). DOI: 10.1371/journal.pone.0189801.

- Palmer, N.B., Myers, K.M., Vander Stoep, A. and et al. (2010) 'Attention-deficit/hyperactivity disorder and telemental health', *Current Psychiatry Reports*, 12(5), pp.409-417. DOI: [10.1007/s11920-010-0132-8](https://doi.org/10.1007/s11920-010-0132-8).
- Pande, R.L., Morris, M, Peters, A. and et al, (2015) 'Leveraging remote behavioral health interventions to improve medical outcomes and reduce costs', *American Journal of Managed Care*, 21(2). Available at: <https://www.ajmc.com/journals/issue/2015/2015-vol21-n2/leveraging-remote-behavioral-health-interventions-to-improve-medical-outcomes-and-reduce-costs>.
- Parker, D.R. and Boutelle, K. (2009) 'Executive function coaching for college students with learning disabilities and ADHD: A new approach for fostering self-determination', *Learning Disabilities Research & Practice*, 24(4), pp.204-215. DOI: [10.1111/j.1540-5826.2009.00294.x](https://doi.org/10.1111/j.1540-5826.2009.00294.x).
- Pehlivanidis, A. (2012) 'Awareness of adult attention-deficit/hyperactivity disorder (ADHD) in Greece', *Psychiatriki*, 23(suppl 1), pp.60-65. PMID: 22796974.
- Peltier, B. (2009) *The psychology of executive coaching: Theory and application*. New York: Routledge.
- Pfiffner, L.J. and DuPaul, G.J. (2015) 'Treatment of ADHD in school settings', in Barkley, R.A. (eds.) *Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment* (4th edn.). New York: Guilford, pp.596-629.
- Prevatt, F. and Levrini, A. (2015) *ADHD coaching: A guide for mental health professionals*. Washington, DC: American Psychological Association.
- Prevatt, F., Lampropoulos, G.K., Bowles, V. and Garrett, L. (2011) 'The use of between session assignments in ADHD coaching with college students', *Journal of Attention Disorders*, 15(1), pp.18-27. DOI: [10.1177/1087054709356181](https://doi.org/10.1177/1087054709356181).
- Prevatt, F., Smith, S.M., Diers, S. and et al, (2017) 'ADHD coaching with college students: Exploring the processes involved in motivation and goal completion', *Journal of College Student Psychotherapy*, 31(2), pp.93-111. DOI: [10.1080/87568225.2016.1240597](https://doi.org/10.1080/87568225.2016.1240597).
- Rockhill, C.M., Tse, Y.J., Fesinmeyer, M.D. and et al, (2016) 'Telepsychiatrists' medication treatment strategies in the children's attention-deficit/hyperactivity disorder telemental health treatment study', *Journal of Child and Adolescent Psychopharmacology*, 26(8), pp.662-671. DOI: [10.1089/cap.2015.0017](https://doi.org/10.1089/cap.2015.0017).
- Sarkis, E. (2014) 'Addressing attention-deficit/hyperactivity disorder in the workplace', *Postgraduate Medicine*, 126(5), pp.25-30. DOI: [10.3810/pgm.2014.09.2797](https://doi.org/10.3810/pgm.2014.09.2797).
- Schrevel, S.J.C., Dedding, C. and Bourse, J.E. (2016) 'Why do adults with ADHD choose strength-based coaching over public mental health care? A qualitative case study from the Netherlands', *SAGE Open*. DOI: [10.1177/2158244016662498](https://doi.org/10.1177/2158244016662498).
- Sforzo, G.A., Kaye, M., Ayers, G.D. and et al, (2014) 'Effective Tobacco Cessation via Health Coaching: An Institutional Case Report', *Global Advances in Health and Medicine*, 3(5), pp.37-44. DOI: [10.7453/gahmj.2014.029](https://doi.org/10.7453/gahmj.2014.029).
- Steventon, A., Tunkel, S., Blunt, I. and Bardsley, M. (2013) 'Effect of telephone health coaching (Birmingham OwnHealth) on hospital use and associated costs: Cohort study with matched controls', *BMJ*, 347. DOI: [10.1136/bmj.f4585](https://doi.org/10.1136/bmj.f4585).
- Swoboda, C.M., Miller, C.K. and Wills, C.E. (2017) 'Impact of a goal setting and decision support telephone coaching intervention on diet, psychosocial, and decision outcomes among people with type 2 diabetes', *Patient Education and Counseling*, 100(7), pp.1367-1373. DOI: [10.1016/j.pec.2017.02.007](https://doi.org/10.1016/j.pec.2017.02.007).
- Wright, S.D. (2014) *ADHD coaching matters*. College Station, TX: ACO Books.

About the authors

Elizabeth Ahmann (ScD, RN, PCC, NBC-HWC) is a faculty member in the Health and Wellness Coaching Department at Maryland University of Integrative Health. Her research interests focus on primarily on coaching for individuals with Attention-Deficit/Hyperactivity Disorder.

Micah Saviet (BS, CNA) is a student in the Masters of Social Work program at the University of Maryland School of Social Work. He is interested in exploring client-centered, behavioral-based strategies aimed at helping individuals with Attention-Deficit/Hyperactivity Disorder cope more effectively and thrive.