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Abstract

Hybrid education, which combines face-to-face and online learning, is being implemented in an increasing number of graduate schools. However, there is limited research on the outcomes of graduates of hybrid programs. The purpose of this study was to a) examine the employment characteristics, professional characteristics, and education perceptions of graduates from an entry-level doctor of occupational therapy program; and b) investigate differences in these variables between graduates of the on-campus and hybrid pathways. A cross-sectional online survey was completed by 146 graduates of an occupational therapy program that includes on-campus (n=111) and hybrid (n=35) pathways. Data were analyzed using an independent t-test and thematic analysis. There were no significant differences in levels of perceived preparedness for the certification exam or to enter the workforce between on-campus and hybrid alumni. No significant differences were found between groups in reported sense of belonging and skills learned throughout the program, or in practice settings or leadership roles held after graduation. There was a significantly greater number of hybrid alumni who were members in state occupational therapy associations. Qualitative data yielded differences in why alumni chose their pathway. In conclusion, graduates were active members of state and national associations, held various leadership and professional roles, felt prepared to begin employment, and experienced positive learning environments. Hybrid pathway graduates were similar in their professional characteristics, employment characteristics, and professional education perceptions compared to their on-campus counterparts, suggesting hybrid education is a suitable educational delivery model for occupational therapy students.

Keywords

Hybrid education, occupational therapy, employment characteristics, professional characteristics, graduate outcomes

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Outcomes and Perceptions of Graduates of an On-Campus and Hybrid Occupational Therapy Program

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ABSTRACT

Hybrid education, which combines face-to-face and online learning, is being implemented in an increasing number of graduate schools. However, there is limited research on the outcomes of graduates of hybrid programs. The purpose of this study was to a) examine the employment characteristics, professional characteristics, and education perceptions of graduates from an entry-level doctor of occupational therapy program; and b) investigate differences in these variables between graduates of the on-campus and hybrid pathways. A cross-sectional online survey was completed by 146 graduates of an occupational therapy program that includes on-campus (n=111) and hybrid (n=35) pathways. Data were analyzed using an independent t-test and thematic analysis. There were no significant differences in levels of perceived preparedness for the certification exam or to enter the workforce between on-campus and hybrid alumni. No significant differences were found between groups in reported sense of belonging and skills learned throughout the program, or in practice settings or leadership roles held after graduation. There was a significantly greater number of hybrid alumni who were members in state occupational therapy associations. Qualitative data yielded differences in why alumni chose their pathway. In conclusion, graduates were active members of state and national associations, held various leadership and professional roles, felt prepared to begin employment, and experienced positive learning environments. Hybrid pathway graduates were similar in their professional characteristics, employment characteristics, and professional education perceptions compared to their on-campus counterparts, suggesting hybrid education is a suitable educational delivery model for occupational therapy students.

Introduction

In 2016, three million graduate students in the United States pursued some form of higher education (National Center for Education Statistics [NCES], 2018). Of these students, 649,000 were enrolled in health care programs and about 325,000 were enrolled in a distance education program (NCES, 2018). *Distance education* is a broad term used to describe the teaching and learning process where participants are geographically separated and technology is used to facilitate communication (NCES, 2019). Distance education programs have increased by 312,000 students over the past decade (NCES, 2018). Demographic data of these students show they are older, employed either part-time or full-time, or may even be raising families (Bower et al., 2015; Drew et al., 2015; McCoy, 2018; Sturgill et al., 2016). Students searching for graduate professional programs, such as in health professions, require flexible hours, open communication with professors and classmates, and the ability to participate in courses electronically (Drew et al., 2015; McCoy, 2018; Sturgill et al., 2016). Healthcare and human services (counseling, psychology, social work) were found to be in the top five areas of anticipated growth in distance education for 2019, with 52% of students choosing distance learning instead of traditional campus-based programs due to convenience and flexibility (Best Colleges, 2020).

The demand for new distance education programs is not only coming from students but also employers and institutions of higher education. Employers are beginning to prefer the freedom and flexibility distance programs offer employees while allowing them to remain productive and increase their skills for the consistently changing workplace (Calonge et al., 2019). Educational institutions rank convenience and flexibility as their primary motivation to offer more distance programs. While students appreciated face-to-face interactions and opportunities to socialize with classmates and peers, many found weekly on-campus attendance difficult (Bower et al., 2015), so the availability of distance programs aids in student recruitment and retention. Recent improvements in technology have allowed educators to re-examine the learning platforms used in higher education to meet the demands of prospective professional students (Bower, 2015; Palmer et al., 2014; Roseth et al., 2013).

Hybrid education, a type of distance education, is defined as a program containing both online and face-to-face components (Allen et al., 2016). In hybrid education, also called *blended education*, 39-70% of content is delivered online, with the remaining content delivered face-to-face (Allen et al., 2016). The online component focuses on introducing and reinforcing content by providing instructions and resources in a convenient, flexible manner (Kendall & Pogue, 2006; Palmer et al., 2014). The face-to-face component allows students to receive clarification of questions, participate in hands-on activities, and engage in discussion with others (Kendall & Pogue, 2006; Palmer et al., 2014). In comparison, the definition of *online education* is that 80-100% of content is delivered online (Allen et al., 2016). Hybrid learning, compared to entirely online environments, is well-suited for health professional programs in which students must acquire both knowledge and hands-on training for skills relevant to their profession.

Previous research on hybrid education programs and their graduates has been conducted in multiple health professions including pharmacy, dental hygiene, education technology, and psychology (Cotter et al., 2015; MacKain et al., 2002; Mu et al., 2014; Sensabaugh et al., 2016; Sumpradit et al., 2014). These studies found hybrid learning to be effective and lead to similarities in satisfaction and learning outcomes between on-campus and hybrid students, both during and after completion of their programs. For example, students in a doctoral psychology distance program reported equal access to participation in online discussion and interaction with on-campus colleagues, which led to high satisfaction (Cotter et al., 2015). Additionally, a hybrid master's in education technology program produced high levels of graduate satisfaction and career success (MacKain et al., 2002). Comparable successes have been found from graduates of hybrid pharmacy and dental hygiene programs (Sensabaugh et al., 2016; Sumpradit et al., 2014). When examining academic performance of on-campus and hybrid occupational therapy students, Mu and colleagues (2014) found comparable grade point averages, clinical performance evaluations, practice board exam scores, and board exam pass rates.

Hybrid education programs have been found to provide students with greater educational access by offering more inclusive and equitable learning experiences when students cannot physically be in class, increasing diversity of remote students (Bower et al., 2015). Difficulties with a sense of belonging and communication between peers and instructors were also found (Cotter et al., 2015; MacKain et al., 2002; Sensabaugh et al., 2016; Sumpradit et al., 2014). However, there is limited research on the successes, benefits, challenges, and outcomes of graduates from occupational therapy hybrid programs when compared to their on-campus counterparts.

The purpose of this study was to a) examine the employment characteristics, professional characteristics, and education perceptions of graduates from an entry-level doctor of occupational therapy program; and b) investigate differences in these variables between graduates of the on-campus and hybrid pathways.

Methodology

The Institutional Review Board at the university affiliated with the authors and the occupational therapy program that was investigated approved this study in October 2019. Voluntary consent and full understanding of the study's risks and potential benefits were obtained by each participant.

Procedure

This cross-sectional study used a survey to collect data. No survey existed that could address the research questions, so an original survey was created by the authors. Face validity was evaluated by inviting a faculty mentor, a research course instructor, and an expert in the field of survey research to review and provide feedback on the instrument. The survey included both open-ended and closed-ended questions and was comprised of four categories: demographic information, employment characteristics, professional education perceptions, and professional characteristics. Demographic information included questions regarding gender, race, ethnicity, program attended, and graduation

year. The employment characteristics section included 13 items related to current employment status in occupational therapy and location of employment. The professional education perceptions section included 11 questions about how participants viewed how the university prepared them for careers in occupational therapy and reasons for choosing their pathway. Finally, the professional characteristics section was comprised of 12 questions about professional organization involvement, leadership roles, and scholarship in occupational therapy. The survey was created in and delivered through Qualtrics, a survey software program.

In November 2019, the online survey was emailed to a convenience sample of alumni from an entry-level doctor of occupational therapy program at a private university in the Midwest. This program offers both on-campus and hybrid pathways for students to earn their degree. In the hybrid pathways, 53% of the total credit hours are delivered online, leaving 47% delivered face-to-face through on-campus and community-based labs, service-learning experiences, and fieldwork. The inclusion criterion was alumni who graduated between 2011 to 2018. This timeframe was selected as 2011 was the first year the program graduated hybrid students in addition to on-campus students, and graduates from 2018 would have one year of experience since their graduation. A list of graduates who met this criterion was obtained from the university's Office of Alumni Relations and included all graduates for whom an email was listed. A total of 513 emails were sent. A first reminder email was sent to potential respondents two weeks after launch of the survey, followed by a second reminder email to potential respondents four weeks after initiation of the survey.

Data Collection and Analysis

Surveys were collected and stored in Qualtrics. Quantitative data was exported from Qualtrics to IBM SPSS Statistics. Frequency distribution described demographic information, along with other nominal data collected. An independent t-test through SPSS software evaluated differences between on-campus and hybrid graduates. Researchers used thematic analysis to evaluate open-ended survey questions (Bernard et al., 2017). These themes were determined using cutting and sorting of repetitions found within the responses to the open-ended questions (Setia, 2016). Themes and subthemes were placed into hierarchies based on importance to the project.

Results

Survey Response

A total of 165 responses were received (32% response rate) for the online survey, including 111 alumni from the on-campus pathway and 35 from the hybrid pathway. All respondents successfully graduated from the doctor of occupational therapy program and passed the National Board for Certification in Occupational Therapy exam, permitting practice as an occupational therapist.

Demographic Characteristics

The majority of alumni for both hybrid and on-campus pathways indicated they were female, non-Hispanic, and white. The average age for on-campus respondents was 30.22 and the average age for hybrid respondents was 31.41. Further demographic data are provided in Table 1. There was a statistically significant difference in graduation years between pathways with a significantly higher proportion of on-campus students (41.4%, $n = 46$) who graduated between 2011 and 2014 responding to the survey than hybrid students (20.0%, $n = 7$) who graduated during the same period ($p = 0.021$).

Table 1

Participant Demographics

	Pathway		P-value (ns= not Significant)
	On-campus $n = 111$ Frequency (%)	Hybrid $n = 35$ Frequency (%)	
Gender			ns
Male	8 (7.2)	3 (8.6)	
Female	87 (78.4)	29 (82.9)	
Prefer not to answer	1 (.9)	0 (0)	
Self-Describe	1 (.9)	0 (0)	
Missing	14 (12.6)	3 (8.6)	
Race (choose all that apply)			ns
White	90 (81.1)	30 (85.7)	
Black or African American	2 (1.8)	1 (2.9)	
Asian	2 (1.8)	0 (0)	
Hawaiian or Pacific Islander	1 (.9)	0 (0)	
Other	1 (.9)	0 (0)	
Prefer not to answer	2 (1.8)	1 (2.9)	
Missing	13 (11.7)	3 (8.6)	
Ethnicity			ns
Hispanic	1 (.9)	3 (8.6)	
Non-Hispanic	92 (82.9)	27 (77.1)	
Prefer not to answer	2 (1.8)	1 (2.9)	
Missing	16 (14.4)	4 (11.4)	
Graduation Year			0.021
2011-2014	46 (41.44)	7 (20)	
2015-2018	65 (58.56)	28 (80)	

Employment Characteristics

The highest percentage of both on-campus and hybrid graduates reported working in a hospital setting (47.7%, $n = 53$ and 42.9%, $n = 15$, respectively). The second highest percentage of on-campus graduates indicated working in long-term care and skilled nursing facility settings (25.2%, $n = 38$), while the second highest percentage of hybrid graduates reported working in freestanding outpatient clinics (40.0%, $n = 14$). Nearly 23% ($n = 8$) of hybrid graduates and 12.6% ($n = 14$) on-campus graduates reported working in academia, as shown in Table 2. The highest reported role in the academic setting for graduates of both pathways (6%, $n = 2$ of hybrid, and 4.5%, $n = 5$ of on-campus graduates) was adjunct, affiliate, or special faculty. However, there was no significant difference between the number of on-campus graduates compared with hybrid graduates who reported working in academia in any capacity.

Other reported employment characteristics for graduates of the on-campus and hybrid pathways were practice ownership and location of practice. Nearly 5% of on-campus graduates ($n = 5$) and 5.7% of hybrid graduates ($n = 2$) reported owning or co-owning a private practice. Finally, there were significant differences in graduate-reported location of practice, with significantly more hybrid graduates staying in the same city or state in which they completed their degree (48.5%, $n = 16$) compared to on-campus graduates (25.8%, $n = 25$; $p = .015$).

Table 2

Alumni-Reported Practice Settings

Practice Setting	Pathway	
	On-campus $n = 111^*$ Frequency (%)	Hybrid $n = 35^*$ Frequency (%)
Academia	14 (12.6)	8 (22.8)
Community	12 (10.8)	5 (14.2)
Early Intervention	11 (9.9)	9 (25.7)
Freestanding Outpatient	23 (20.7)	14 (40.0)
Home Health	15 (13.5)	3 (8.6)
Hospital (ICU, Acute, Inpatient, Outpatient)	53 (47.7)	15 (42.9)
Long-Term Care/Skilled Nursing Facility	38 (25.2)	3 (8.6)
Mental Health	9 (8.1)	2 (5.7)
Schools	6 (5.4)	5 (14.2)
Other	8 (7.2)	3 (8.6)

Note. * n may not be equivalent to total responses due to a “select all that apply” answer option

Professional Characteristics

There were no significant differences between on-campus and hybrid graduates' self-reported activities, leadership roles, or professional roles in any capacity. Lead occupational therapist was the highest reported leadership role for both pathways, followed by the role of committee or task force chair, then student fieldwork coordinator, and lastly manager or director role, as reflected in Table 3. Leadership roles which emerged from the "other" option included driving rehabilitation specialist ($n = 1$), manager of a non-profit organization ($n = 1$), and leader of facility trainings ($n = 1$). The highest reported professional role in both on-campus and hybrid graduates was membership in a committee or task force ($n = 52$ and $n = 19$, respectively). The highest reported activity completed by campus graduates was presentation at a national conference ($n = 11$) while the highest reported activity by hybrid graduates was presentation at a local conference ($n = 6$).

One survey item asked respondents about their participation in professional occupational therapy associations. No statistically significant differences were found between the number of on-campus and hybrid graduates who were members of the American Occupational Therapy Association (AOTA) or World Federation of Occupational Therapists. However, hybrid pathway graduates were significantly more likely to participate in a state occupational therapy organization (51.4%, $n = 18$) compared to on-campus graduates (32.4%, $n = 36$; $p = .042$). Respondents also reported membership in the American Society of Hand Therapists ($n = 5$), the Brain Injury Association of America ($n = 3$), the American Burn Association ($n = 1$), and the American Hippotherapy Association ($n = 1$).

Table 3

Activities, Professional Roles, and Leadership Roles

Reported Roles and Activities	Pathway	
	On-campus $n = 111^*$ Frequency (%)	Hybrid $n = 35^*$ Frequency (%)
Leadership Roles		
Student Fieldwork Coordinator	13 (11.7)	4 (11.4)
Manager or Director	9 (8.1)	1 (2.9)
Committee or Task Force Chair	17 (15.3)	6 (17.1)
Lead Occupational Therapist	30 (27.0)	9 (25.7)
Professional Roles		
Committee or Task Force Member	52 (46.9)	19 (54.3)
Volunteer in Community	50 (45.1)	14 (40.0)
AOTA Occupational Therapy Fellowship Program (formerly known as residency)	3 (2.7)	1 (2.8)
Other Certifications	57 (51.4)	20 (57.1)

Activities		
Submitted to a peer reviewed, scientific journal for publication	9 (8.1)	3 (8.6)
Published by a peer-reviewed, scientific journal	7 (6.3)	3 (8.6)
Presented at a national conference	11 (9.9)	3 (8.6)
Presented at a state conference	9 (8.1)	3 (8.6)
Presented at a local conference	10 (9.0)	6 (17.1)

Note. *n may not be equivalent to total responses due to a “select all that apply” answer option

Professional Education Perceptions

Alumni were asked a series of questions to better understand their perceptions of their chosen pathway and how their education prepared them for entering the workforce. When alumni were asked to rank their reasoning for choosing their pathway, on-campus respondents’ top three themes were: a) good fit with preferred learning style, b) reputation of pathway, and c) close to family and friends. Some respondents indicated they chose the on-campus pathway because they “cannot learn well from watching lectures online” or they wanted to maximize on-campus time due to an expectation that the doctorate program would be challenging.

Hybrid respondents’ top three themes were: a) flexibility, b) good fit with preferred learning style, and c) close to family and friends. Flexibility ranking was significantly higher in hybrid alumni (average rank of 2.71, with a ranking of 1 being the top reason) compared to on-campus alumni (average rank of 4.72; $p < 0.001$) with frequent comments about how the hybrid pathway allowed respondents to continue to work while earning their degree. For reputation of the pathway, ranking was significantly higher in on-campus alumni (average rank of 3.36) as compared to hybrid alumni (average rank of 5.51; $p < 0.001$).

When comparing between the two groups of respondents, 82% ($n = 91$) of on-campus respondents and 91.4% ($n = 32$) of hybrid respondents answered “yes” to feeling a sense of belonging. The alumni’s responses highlighted how positive interactions with educators and peers affected their sense of belonging with the themes of “having an inclusive and personal relationship with professors and staff” and “being able to develop friendships/support” emerging for both hybrid and on-campus alumni. As one on-campus respondent said, “professors appeared to care about me as a person not just as a student. I felt like my future interests were looked out for.” Another on-campus respondent said, “I always felt like everyone in the program was willing to help each other out in any way they could. They may not all be your best friends, but they were always (and still are) willing to consult on a case, assignment, or life event.” Being off campus did not affect abilities to build relationships with faculty and students on campus, with one hybrid alumni commenting, “the campus students were diligent about including us in lecture as much as possible and answering our questions. The instructors also did a good job of making the distance students feel included as well!”.

Out of 99 on-campus respondents, 71.2% ($n = 79$) said they would recommend their pathway to future students based on access to faculty and resources, in-person learning, and a positive student and school involvement. For hybrid respondents, 68.6% ($n = 24$) would recommend to future students based on flexibility and the fostering of independence and autonomy. Twenty-two percent ($n = 8$) of hybrid respondents and 15.3% ($n = 17$) of on-campus respondents answered “it depends” to the question of recommending their pathway to future students, citing consideration of the learning needs for each individual student. One hybrid alumnus stated a student would be appropriate for a hybrid pathway if they were disciplined and able to initiate learning due to the flexibility of a distance pathway making it “...a lot easier to get behind or not engage as much in lecture.” An overarching theme for both on-campus and hybrid respondents on not recommending the pathway was the cost of higher education/doctoral programs in general. Respondents from both pathways commented that they would recommend the doctorate program for the “knowledge and experience” but inform people about the high cost of a doctor of occupational therapy program.

When asked about perceived preparation for entering the workforce, both groups had a strong sense of perceived preparation with all ranking at or above a rating of 4, which indicated “prepared”, on a 5-point Likert scale as reported in Table 4. When asked to rank what skills learned throughout the program they now incorporate in their practice, on-campus alumni’s top three rankings were interpersonal communication, adaptability, and teamwork, while hybrid alumni were interpersonal communication, self-directed learning, and time management. When comparing how their education helped them achieve their professional goals as occupational therapists, on-campus alumni mentioned they learned leadership skills, research and clinical skills, and a wide range of didactic educational and experiential opportunities. Hybrid alumni also mentioned their wide range of didactic educational and experiential opportunities as well as their advocacy skills and overall confidence and ability in skills.

Table 4*Graduates' Perceived Preparation by Pathway*

Pathway	Take the NBCOT exam	Begin occupational therapy practice after graduation	Serve in a leadership role	Take part in IP practice	Utilize problem-solving skills	Satisfaction with educational experience
On-campus						
N	98	99	99	99	98	99
Mean rating on a 5-point Likert scale*	4.62	4.43	4.13	4.54	4.6	4.45
Std. Deviation	0.547	0.731	1.027	0.69	0.605	0.674
Hybrid						
N	31	31	31	31	31	33
Mean rating on a 5-point Likert scale*	4.58	4.58	4.23	4.48	4.71	4.67
Std. Deviation	0.502	0.564	0.717	0.508	0.529	0.479

Note. *Rating: 1= not prepared at all to 5= very prepared

Discussion

Previous literature supports the equality of outcomes among healthcare professional program graduates of both on-campus and hybrid pathways, citing similar standardized test outcomes, grade point averages, fieldwork rotation student evaluations, and overall program satisfaction (Mu et al., 2014). This research study aimed to expand on current data of outcomes of hybrid students compared to their on-campus counterparts in an entry-level doctor of occupational therapy program. Data collected in this study supports prior research indicating that graduate outcomes from hybrid models are consistent with on-campus graduates and can be an effective mode of educational delivery. Furthermore, this research highlights the unique outcomes of graduates from both the hybrid and on-campus pathways in employment characteristics, professional characteristics, and professional perceptions of a graduate school education.

Demographic Characteristics

Overall, there were not significant differences in demographic characteristics studied between on-campus and hybrid pathway respondents. The one exception was a difference in graduation years of respondents, with a significantly higher proportion of on-campus students who graduated between 2011 and 2014 responding to the survey than hybrid students who graduated during the same period. This may be because the occupational therapy program studied had only one hybrid pathway until the 2013-2014 academic year, with relatively few graduates of that pathway. A second hybrid pathway was added to the program in 2013, and a third in 2015, with students in those additional pathways first graduating in 2016 and 2018, respectively. Quality improvements in alumni outreach and communication were enacted as the program added additional hybrid pathways.

Employment Characteristics

Results to survey questions regarding employment characteristics suggest that hybrid pathway graduates remain in the same city and state in which they completed their graduate program significantly more than on-campus graduates. This finding is consistent with previous research which found that graduates from a distance program in Hawaii were still living and working in their respective areas (Stotzer, 2012). This finding may have implications for institutions looking to increase the population of skilled health care professionals in areas with insufficient access to these resources (e.g., rural communities). Additionally, data reveal the highest percentage of both on-campus and hybrid graduates work in the hospital setting, supporting previous literature that employment characteristics of graduates in varying educational delivery models are similar (Richardson, 2009).

Professional Characteristics

Results demonstrated no significant difference in the leadership or professional roles reported by on-campus and hybrid graduates. This finding demonstrates that the type of delivery method used, hybrid or on-campus learning, has no significant impact on the overall leadership accomplishments of graduate students. Data results from this study found that graduates from a hybrid pathway were significantly more likely to participate in their respective state professional association compared to on-campus graduates. The results may indicate that students learning in a hybrid environment may have more investment in advocacy for and involvement with their professional organization because they plan on practicing in some capacity in that particular state in the long term. This finding also builds on previous literature that found distance students were more likely to volunteer than on-campus students (Kendall & Pogue, 2006).

Professional Education Perceptions

Contrary to prior studies, hybrid alumni did not experience isolation or difficulties with relatedness while being a distance student without typical face-to-face contact with peers and faculty (Bolliger & Halupa, 2012; Owens et al., 2009; Potts & Kleinpeter, 2001). In fact, hybrid alumni developed significant relationships with both pathway peers and faculty while valuing the opportunities to have both hybrid and on-campus faculty as resources. Hybrid alumni who reported feeling an overall sense of belonging in their

respective pathways cited several reasons, including smaller cohort sizes and emphasis on group projects throughout the curriculum. The smaller cohort sizes of the hybrid pathways may foster connectedness among peers, professors, and faculty despite decreased face-to-face contact. Additionally, many hybrid alumni responses to this survey question illuminated the emphasis faculty and staff at their institution placed on being available to students. This was particularly promoted by faculty and staff during program orientation, which established a foundation for connection throughout the program. Similar to previous studies, hybrid alumni valued the flexibility and fostering of independence and autonomy while also wanting to have positive interactions with faculty and peers like their on-campus counterparts (Blakelock & Smith, 2006; Palmer et al., 2014; Schaber et al., 2015). Independent of the individual reasoning for choosing their pathway, students must feel connected to the program in order to succeed (Blakelock & Smith, 2006).

The perceptions of hybrid alumni indicated they were just as prepared through their education as their on-campus counterparts which is consistent with previous literature (Chen et al., 2018; Nguyen, 2015; Slover & Mandernach, 2018). Collectively, respondents from both hybrid and on-campus pathways ranked their perceived level of preparedness at or above a 4 on a 5-point Likert scale in all areas. Both hybrid and on-campus respondents felt they were most prepared in interpersonal communication. Working and communicating with other healthcare professionals outside of one's discipline is not only needed for success in healthcare but also facilitates skill development and understanding of scopes of practice (Coppola et al., 2019). Both groups credited their education for bettering their research and clinical skills and with providing didactic educational and experiential opportunities to increase their success as occupational therapists. Clinical skills are crucial for effective care. Through performing and being evaluated on clinical skills in school, future healthcare professionals will be able to provide more effective care (Khan et al., 2014). Hybrid alumni ranked their ability to initiate self-directed learning and time management skills as two of their highest areas of preparedness, which aligns with previous literature (Cherry & Blackinton, 2017; Kendall & Pogue, 2006; Richardson, 2009). Results were congruent with Mu and colleagues (2014) that the value of education does not decrease when presented through a hybrid model.

Limitations and Future Research

Participation in the study's survey was voluntary. Therefore, the sample of this study does not represent all alumni from both pathways of the program. Respondents may consist of graduates who were highly motivated and interested in advocating for their on-campus or hybrid models of occupational therapy education. Findings from this study may be less generalizable to all occupational therapy practitioners and occupational therapy doctoral programs. Lastly, the sample was from one occupational therapy program, hence presenting a possible gap in levels of preparedness, employment characteristics, and professional characteristics of graduates from other programs.

Alumni's responses indicated that both hybrid and on-campus pathways' learning experiences adequately prepared them for successful futures in occupational therapy. There continues to be a need for further research on hybrid educational models for healthcare professionals. Future studies should incorporate a greater sample number from multiple universities to gain a greater diversity of respondents.

Implications for Occupational Therapy Education

Flexible and diverse learning opportunities for graduate programs in occupational therapy are growing in importance for potential students. Results of this research indicate minor significant differences between the employment characteristics, professional characteristics, and professional education perceptions of graduates from on-campus and hybrid occupational therapy pathways. These results indicate that the fulfillment of a flexible option for graduate students pursuing a degree in occupational therapy can be implemented successfully into programs. Occupational therapy graduate programs that aim to expand the diversity of students and bring the profession to areas in need, such as rural and underserved communities, may consider implementing hybrid programs that produce graduate outcomes similar to graduates of on-campus programs.

Conclusion

The purpose of this study was to examine employment characteristics, professional characteristics, and professional education perceptions of graduates from an entry-level Doctor of Occupational Therapy program. This research also investigated if graduates of the on-campus and hybrid pathways from this program differed in terms of these variables. The data collected in this research found no significant differences between groups in reported sense of belonging, skills gained during practice, or leadership roles held after graduation. Graduates from both the on-campus and hybrid programs felt prepared for practice following graduation; participated in local, state, and national associations; and held various leadership and professional roles in practice. The results of this study added to the body of knowledge that hybrid pathway graduates have similar outcomes as on-campus graduates. The evidence found in this research is valuable because it informs other occupational therapy programs that it is possible to implement a hybrid education model while producing similar graduate outcomes as an on-campus model. The implementation of hybrid models may be necessitated by intrinsic student factors such as a desire for flexibility and extrinsic environmental variables such as the need for viable virtual learning environments in the case of pandemics limiting face-to-face interactions. The limitations of the sample size used for this research should be considered when studying the results. Future research should aim to increase the diversity of students participating in the survey.

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