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The North American yoga therapy workforce survey

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ABSTRACT

Objective: To describe the personal, professional, practice, service and consumer characteristics of the North American yoga therapy workforce.
Design: Cross-sectional, descriptive survey developed and informed by the contemporary workforce literature. A link to the e-survey was distributed to members of the International Association of Yoga Therapists.
Results: 367 members responded (~20% of eligible participants). Most were aged 40–69 years (88%) and female (91%). Almost half (42%) identified as a "seasoned yoga therapist" and few (9%) graduated from an accredited 800-h yoga therapy program. An average of 8 h/week was spent in clinical practice with many (41%) earning an annual income of <US$10,000 from yoga therapy. Practice was informed by twenty different styles of yoga. Urban (39%) and suburban (38.1%) regions were the most common locations of practice. Most therapists conducted therapeutic yoga classes (91%) and 1:1 sessions (94%), with more than half delivering 1–10 therapeutic classes/month (53%) and 1–10 1:1 sessions/month (52%). Conditions seen most frequently were anxiety (77%), back/neck pain (77%) and joint pain/stiffness (67%).
Conclusion: While yoga therapists shared demographic characteristics with other complementary and integrative health (CIH) providers, they tended to work less and earn less than their CIH counterparts. Yoga therapists were less likely to work in rural settings, possibly contributing to the underutilization of yoga in underserved populations. Improving access to yoga therapy services, identifying common core components across the various styles of yoga, and building a stronger evidence-base for key health indications may increase acceptance of, and demand for, yoga therapy.

1. Introduction

1.1. Background

Yoga is an ancient mind-body practice encompassing ethical and lifestyle principles, physical postures, breathwork and meditation.[1] Yoga Therapy stems from this ancient tradition and has an explanatory model of health and disease that is distinct from that of biomedicine. The International Association of Yoga Therapists (IAYT), whose mission it is to "establish yoga as a recognized and respected form of therapy", distinguishes yoga therapy as the "appropriate application of these [yoga] teachings and practices in a therapeutic context".[2,3] In the IAYT's definition of yoga therapy there are several ways in which yoga therapy may be seen to differ from general yoga teaching, including: specialized training in supporting the therapeutic relationship, "eliminating, reducing or managing symptoms that cause suffering", "improving function", preventing underlying causes of illness, and changing the "relationship to and identification with their [the client's] condition".[2] Of course, as Yoga Therapy is an emerging profession, the definition of this discipline continues to evolve; over time, the distinction between yoga and yoga therapy should become clearer.

Yoga therapy, as an emerging therapeutic discipline, has recently introduced accredited training programs and scope of practice guidelines influencing significant change in the discipline and workforce.[3] These processes have followed the release of the educational competencies by IAYT in 2012, which included guidelines for educational programs in yoga and biomedical foundations, therapeutic skills, yoga therapy tools, and professional practice.[2] Grandparenting and certification processes have also been initiated since the implementation of this survey. Understanding the practitioners who self-identify as yoga therapists, regardless of their credentials, is an important step in understanding the base of this emerging discipline.

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The evolution of yoga therapy parallels the growing body of yoga research for both general health and specific medical conditions.[4] A recent review of this research found an almost nine-fold increase in the number of publications, from 28 publications between the years of 1999 and 2003, to 243 publications between 2009 and 2013.[4] Studies supporting the effectiveness of yoga are increasingly being published in mainstream medical journals, suggesting that there may be growing acceptance of yoga amongst the medical community.[4–12]

Evidence also points towards increased acceptance of yoga by the general public.[13–16] In the most recent (2012) US National Health Interview Survey, yoga was identified as the most frequently used mind-body practice, with use increasing from 5.1% of adults in 2002–9.5% in 2012.[13] The 2016 Yoga in America Survey estimates that over 36 million Americans practice yoga.[15] Although half of these consumers report using yoga to improve health,[15] evidence indicates that the motivation for using yoga extends beyond improving overall health and wellness, to alleviating or managing specific health conditions.[16–19] These results suggest that healthcare consumers are turning to yoga to address specific health concerns, and are creating a space for yoga therapists as an important component of their health care team. As research in yoga grows, and public interest in the utilization of yoga for health reasons continues, it will serve the field of yoga therapy to distinguish itself from general yoga practice for greater public and healthcare understanding. A first step towards this understanding is characterizing the currently practicing yoga therapist workforce.

1.2. Objectives

Despite the large growth in the interest, practice and professionalization of yoga therapy, the increasing evidence-base, and an indication of rising acceptance within the medical community, little is known about the yoga therapy workforce. To meet the training and continuing education needs of this growing workforce and to ensure the provision of a competent yoga therapy workforce capable of servicing the needs of consumers, the characteristics of currently practicing yoga therapists should be understood. This study aimed to describe the North American yoga therapy workforce, including training, practice characteristics, demographic profile, clientele and work environment, in order to better inform future policy, education, research and practice.

2. Methods

2.1. Design

The study utilized a cross-sectional, descriptive survey design.

2.2. Objectives

The aim of the study was to profile the North American Yoga Therapist workforce by describing:

1. Personal and professional characteristics (i.e. age, gender, education, training, experience and income)
2. Practice characteristics (i.e. yoga therapy styles, clinical setting, regional and geographical location)
3. Service characteristics (i.e. frequency, duration, size and cost of classes and 1:1 sessions), and
4. Consumer characteristics (i.e. client conditions, client age-groups).

2.3. Sample

Participants were a convenience sample of self-identified, practicing yoga therapists in North America (i.e. the U.S. and Canada), who were members of IAYT. As of October 27th 2015, IAYT had 5163 North American members, of whom 4772 resided in the US and 391 resided in Canada. IAYT membership is open to a wide variety of yoga professionals, including yoga therapists and yoga teachers. While it is estimated that only one third of IAYT members were practicing yoga therapists eligible to participate in the survey (Pers comm., IAYT Director, 2016), this could not be confirmed as yoga therapy certification had not yet commenced at the time the survey was administered; as such, the sample size was calculated conservatively on the entire 5163 members. Based on this target population, the study needed to survey at least 358 therapists to achieve at worst ±5% margin of error with 95% confidence for any individual survey item (SurveyMonkey Sample Size Calculation Software, California, USA).

2.4. Data collection

2.4.1. Description of questionnaire

The questionnaire was designed to address the four objectives of the current study. The development of the survey began with the research team brainstorming potential survey items, followed by the extraction of pertinent questions from existing health workforce surveys.[20–24] Potential research questions were then pooled together and the research team tasked with reaching consensus on each of the survey items and response options.[20–24] The survey was sent to professionals in the field for pilot testing and feedback was integrated into the final version. The final product was a 27-item questionnaire divided into four constructs: personal and professional, practice, service, and consumer characteristics. Response items were primarily categorical (including both ordinal and nominal variables), with few items capturing continuous data (i.e. hours worked, fees charged).

2.4.2. Administration of questionnaire

Invitations to participate in the study were emailed to 5163 IAYT members in October 2015, including detailed information about the study (e.g. purpose of the study, description of involvement, participant rights, researcher contact details) and a link to the online survey, which was administered using the SurveyMonkey™ web-based platform. A reminder email was sent two weeks later. The workforce questions were accompanied by a questionnaire evaluating attitudes, skills, and use of evidence-based practice among yoga therapists; [22] the findings of the latter survey will be reported elsewhere. The combined questionnaire took approximately 15 min to complete, with the workforce component alone taking approximately 5 min. The survey was open for 5 weeks, between October and November 2015.

2.5. Data analysis

Survey responses were downloaded from SurveyMonkey™ into SPSS (v.21.0) for data cleaning and statistical analysis. Partially-completed surveys were excluded from the analysis if the first two sections of the survey (i.e. at least 33% of survey items) were not completed. The management of missing data was not required as almost all survey items necessitated a response; the only missing data (e.g. demographic information) were deemed unsuitable for imputation. Categorical data were analyzed using frequency distributions and percentages. Measures of central tendency and variability were used to describe normally distributed

data. Medians and interquartile range were used where data were not normally distributed.

2.6. Ethical considerations

The Institutional Review Board (IRB) of the Maryland University of Integrative Health reviewed and approved the study protocol. The study was determined to be exempt from IRB oversight due to the anonymity of participants and minimal risk. All data were collected anonymously (IP addresses not recorded), and consent was implied by completion of the survey.

3. Results

The workforce survey was circulated to 5163 members of IAYT; 367 of these members responded to the survey. Respondents had to self-identify as yoga therapists before completing the survey and, as discussed previously, the eligible respondents within the membership were estimated at only one third of the members. Therefore, while the absolute response rate was 7.1% based on the entire North American IAYT membership, the likely response rate was approximately 20%.

3.1. Personal and professional characteristics

Most yoga therapists were aged between 40 and 69 years (87.7%), with the greatest proportion (37.1%) between 50 and 59 years (Table 1). The vast majority of therapists were female (91.3%). A large proportion of yoga therapists held either a Bachelor degree (28.9%) or Master's degree (37.9%) as their highest education (Table 1). One in eight (13.1%) respondents held a doctoral degree. In terms of yoga therapy training, almost one-half (41.7%) of respondents identified themselves as 'seasoned therapists' (i.e. someone who has practiced yoga therapy for ≥10 years, with 700 h of experience). This was followed by 27.5% who had completed a 500-h Registered Yoga Teacher (RYT) program and 8.7% who graduated from an accredited 800-h yoga therapy program.

Most participants (67.5%) had practiced as a yoga therapist for less than 10 years, with one-third (34.3%) reporting 1–5 years of experience, and one-quarter (27.8%) reporting 6–10 years of experience (Table 1). Respondents worked, on average, 8 (IQR 4, 15.3) hours per week as yoga therapists, with very few working in a research (Median 0; IQR 0,1) or training capacity (Median 0; IQR 0,2).

The gross income generated from yoga therapy was low, with three-quarters (76.6%) of respondents earning less than US$40,000 per year (Table 1). More than one-third (40.9%) of therapists earned less than US$10,000 annually from yoga therapy related work.

Most therapists indicated that therapeutic applications for the management of specific health problems, symptoms or conditions were covered in their yoga teacher training to a large extent (59.4%), followed by 27.2% reporting it was somewhat covered and only a few (7.1%) reported it was not covered. In 6.3% of cases, participants had not completed a 200- or 500-h yoga teacher training program.

3.2. Practice characteristics

Twenty different styles of yoga were reported to inform yoga therapy practice, with the Iyengar (43.9%) and Desikachar/Krishnamacharya styles (40.1%) used by most (Table 2). Whilst yoga therapy was delivered across a variety of settings, the majority of respondents practiced yoga therapy primarily within a sole practice (40.6%) or yoga studio (22.9%). These settings were primarily located in an urban (39.2%) or suburban (38.1%) location, and in the Western (24.8%) or Northeastern (24.3%) United States. Many yoga therapists reported utilizing other modalities to complement their practice, including licensed healthcare practices such as nutrition, psychotherapy, physical/recreational/occupational therapy and nursing.

3.3. Service characteristics

A large majority (91%) of respondents conducted yoga therapy classes, with more than half (53.1%) delivering between 1 and 10 classes per month (Table 3). For more than two-thirds of therapists, class sizes averaged between 1 and 10 people (73.3%), and ran for 60–75 min (64.9%). The median cost of these classes was US$15 (IQR 10,25) per person, with the greatest proportion (42.2%) of respondents charging between US$11 and US$20.

Almost all participants (94%) provided 1:1 yoga therapy services (Table 4). One-half (52%) of therapists conducted between 1 and 10 1:1 yoga therapy sessions per month. The duration of initial sessions ranged between 60 and 90 min for most (70.8%), with follow-up sessions lasting between 60 and 75 min for two-thirds (66.3%) of respondents. The median cost of an initial 1:1 consultation was US$80 (IQR 59,100) per person, with two-thirds (66%) of therapists charging between $51 and US$199 per person. For the follow-up consultation, the median cost was US$75 (IQR 50,95), with most (65.1%) charging between $51 and US$199.

3.4. Consumer characteristics

Consumers attending yoga therapy classes or 1:1 sessions presented with a wide range of physical and psychological complaints. The conditions observed most frequently were anxiety (76.6%), back/neck pain (76.6%) and joint pain/stiffness (66.5%) (Table 5). Adults (84.7%) and older adults (66.2%) were most likely to attend yoga therapy sessions; very few adolescents (11.4%), children (6.5%) or infants (0.5%) participated in such sessions.

4. Discussion

4.1. Summary of findings

This is the first known study to describe the yoga therapy workforce in North America. The study reveals a predominantly female, middle-aged and highly educated workforce, working mostly part-time across multiple urban or suburban settings, and earning less than US$40,000 gross per year from yoga therapy related work. Consumers of these yoga therapy services were largely adults or older adults with psychological or musculoskeletal conditions, or fatigue.

4.2. Shared characteristics with CIH practitioners and consumers

North American yoga therapists shared many characteristics with other complementary and integrative health (CIH) providers including age, sex and highest level of education.[24,25] Respondents reported a similar time intensive nature to their work as the CIH professions of acupuncture, naturopathy and massage, which reflects a potential similarity in the outlook for income generation and client workload between these fields.[24–26] Yoga therapists also shared attributes with people seeking CIH treatment and those practicing yoga, with all three groups most likely to be aged between 40 and 69 years, female, and college-educated.[13,15–19,23–25] This homogenous profile of yoga therapists and yoga consumers may have implications for the utilization and accessibility of these practices among racially, ethnically and socioeconomically diverse populations. This matter warrants further investigation; specifically, to determine to what extent the yoga therapist workforce contributes to this inequitable access to

Table 1
Personal and Professional characteristics of sample (n = 367).

Variable	Subcategory	Result
Age, *n* (%)	<20 years	0 (0.0)
	20–29 years	3 (0.8)
	30–39 years	39 (10.6)
	40–49 years	93 (25.3)
	50–59 years	136 (37.1)
	60–69 years	93 (25.3)
	70+ years	3 (0.8)
	Missing	0 (0.0)
Sex, *n* (%)	Female	335 (91.3)
	Male	32 (8.7)
	Missing	0 (0.0)
Highest qualification, *n* (%)	High school diploma	13 (3.5)
	Associate degree	31 (8.4)
	Bachelor degree	106 (28.9)
	Master's degree	139 (37.9)
	Professional doctorate	18 (4.9)
	PhD	30 (8.2)
	Other	30 (8.2)
	Missing	0 (0.0)
Years since receiving highest qualification, *n* (%)	<1 year	24 (6.5)
	1–5 years	39 (10.6)
	6–10 years	50 (13.6)
	11–15 years	36 (9.8)
	16+ years	212 (57.8)
	Not applicable	6 (1.6)
	Missing	0 (0.0)
Yoga teacher status, *n* (%)	200 h RYT or equivalent	29 (7.9)
	200 h E-RYT or equivalent	35 (9.5)
	500 h RYT or equivalent	71 (19.3)
	500 h E-RYT or equivalent	192 (52.3)
	1000 h RYT or equivalent	2 (0.5)
	1000 h E-RYT or equivalent	3 (0.8)
	Other training	35 (9.5)
	Missing	0 (0.0)
Yoga therapy training, *n* (%)	500 h RYT plus <500 h experience	50 (13.6)
	500 h RYT plus ≥500 h experience	51 (13.9)
	Enrolled in accredited 800 h YT program	26 (7.1)
	Graduated from accredited 800 h YT program	32 (8.7)
	Seasoned therapist (practiced for 10 years & 700 h)	153 (41.7)
	Enrolled in other YT training program	6 (1.6)
	Received no formal YT training	26 (7.1)
	None of the above	23 (6.3)
	Missing	0 (0.0)
Years practiced as a yoga therapist, *n* (%)	<1 year	20 (5.4)
	1–5 years	126 (34.3)
	6–10 years	102 (27.8)
	11–15 years	66 (18.0)
	16+ years	53 (14.4)
	Missing	0 (0.0)
Hours per week in clinical practice, research and education, *Median* (*IQR*)	Yoga therapy (Practice)	8.0 (4.0,15.3)
	Participating in research (Research)	0.0 (0.0,1.0)
	Training yoga therapists (Education)	0.0 (0.0,2.0)
Gross annual income from yoga therapy related work only (US Dollars), *n* (%)	<$10,000	150 (40.9)
	$10,000–$19,999	63 (17.2)
	$20,000–$39,999	68 (18.5)
	$40,000–$59,999	28 (7.6)
	$60,000–$79,999	13 (3.5)
	≥$80,000	14 (3.8)

E-RYT – Experienced Registered Yoga Teacher; IQR – Interquartile range; RYT – Registered Yoga Teacher; YT – Yoga therapy.

Table 2
Practice characteristics of sample.

	Subcategory	Result
Styles of yoga informing yoga therapy practice[a], *n* (%)	Iyengar	161 (43.9)
	Desikachar/Krishnamacharya	147 (40.1)
	Integrative yoga therapy	118 (32.2)
	Viniyoga	118 (32.2)
	Structural	75 (20.4)
	iRest	74 (20.2)
	Anusara	69 (18.8)
	Integral yoga	64 (17.4)
	Ashtanga	60 (16.3)
	Kundalini	47 (12.8)
	Phoenix rising	33 (9.0)
	Ananda	18 (4.9)
	Kripalu	16 (4.4)
	Svaroopa	12 (3.3)
	Triyoga	10 (2.7)
	Other	24 (6.5)
Additional modalities practiced[a], *n* (%)	Nutrition	115 (31.3)
	Ayurveda	106 (28.9)
	Aromatherapy	85 (23.2)
	Tactile therapies	71 (19.3)
	Do not use other therapies	69 (18.8)
	Psychotherapy	59 (16.1)
	Physical therapy	47 (12.8)
	Recreational therapy	17 (4.6)
	Reiki	16 (4.4)
	Nursing	14 (3.8)
	Occupational therapy	13 (3.5)
	Somatic therapy	11 (3.0)
	Other	76 (20.7)
Clinical setting in which yoga therapy is primarily practiced, *n* (%)	Solo practice	149 (40.6)
	Yoga studio	84 (22.9)
	Within an institution	26 (7.1)
	With a group of orthodox providers	15 (4.1)
	Community/religious centre	14 (3.8)
	With a group of CIM providers	12 (3.3)
	Specialised facility	8 (2.2)
	With CIM & orthodox providers	7 (1.9)
	Client's home	6 (1.6)
	With a partner	6 (1.6)
	Other	9 (2.5)
	Missing	31 (8.4)
Number of settings practicing as a yoga therapist, *n* (%)	0	3 (0.8)
	1	92 (25.1)
	2	91 (24.8)
	3	87 (23.7)
	4	35 (9.5)
	5	14 (3.8)
	6 or more	14 (3.8)
	Missing	31 (8.4)
Regional location of practice, *n* (%)	Urban	144 (39.2)
	Suburban	140 (38.1)
	Rural	52 (14.2)
	Missing	31 (8.4)
Geographical location of practice, *n* (%)	West US	91 (24.8)
	Northeast US	89 (24.3)
	Midwest US	59 (16.1)
	South US	58 (15.8)
	British Columbia, Canada	12 (3.3)
	Ontario, Canada	11 (3.0)
	Alberta, Canada	8 (2.2)
	Other, Canada	5 (1.4)
	Other, not further specified	2 (0.5)
	Alaska	1 (0.3)
	Missing	31 (8.4)

CIM – Complementary and integrative medicine; US – United State.
[a] Multiple response question.

Table 3
Service characteristics of sample – Yoga therapy classes.

Variable	Subcategory	Result
Number of yoga therapy classes taught per month, *n* (%)	None	33 (9.0)
	1–5	120 (32.7)
	6–10	75 (20.4)
	11–15	45 (12.3)
	16–20	36 (9.8)
	21–25	20 (5.4)
	Over 25	38 (10.4)
Average number of people participating in yoga therapy classes, *n* (%)	None	1 (0.3)
	1–5	118 (32.2)
	6–10	151 (41.1)
	11–15	43 (11.7)
	16–20	7 (1.9)
	21–25	6 (1.6)
	Over 25	2 (0.6)
	Missing	39 (10.6)
Average duration of yoga therapy classes, *n* (%)	Less than 45 min	2 (0.5)
	45 min	13 (3.5)
	60 min	131 (35.7)
	75 min	107 (29.2)
	90 min	57 (15.5)
	120 min	12 (3.3)
	More than 120 min	1 (0.3)
	Other	5 (1.4)
	Missing	39 (10.6)
Average fee charged to people participating in a yoga therapy class (US dollars), *n* (%)	None	25 (6.8)
	$1–$10	59 (16.1)
	$11–$20	155 (42.2)
	$21–$30	31 (8.5)
	$31–$40	6 (1.6)
	$41–$50	10 (2.7)
	$51–$99	26 (7.1)
	$100 or more	16 (4.4)
	Missing	39 (10.6)

yoga therapist services in North America, and how changes to the workforce might facilitate access to these services by marginalized groups.

4.3. Geographical location

The geographical location of yoga therapists may also impact access to yoga therapy. This study found that most yoga therapists practiced in urban and suburban settings, aligning with findings that yoga is practiced more in urban settings, and women in urban settings are more likely to consult with a yoga professional than women in non-urban areas.[27] This is a departure from other CIH practices, with previous studies in the US and Australia revealing a higher prevalence of CIH use in rural and non-urban regions than urban areas.[28] CIH use has served as an important healthcare option in rural areas particularly amongst older populations and ethnic minority groups where the reasons for greater use have been theorized to include: lack of availability, poor access and dissatisfaction with conventional healthcare.[27–29] Since yoga has been found to be both cost-effective and safe, it could serve as an important component of healthcare in rural and socioeconomically diverse populations.[30,31] Yoga therapy accreditation bodies and training institutions may help cultivate diversity and improve access in these underserved populations by encouraging yoga therapists to establish practices in these areas.

4.4. Accreditation and credentialing

The accreditation and credentialing of yoga therapy schools and yoga therapists, respectively, have been relatively recent occurrences. This survey reflects this new and evolving process as almost half of respondents had identified themselves as "seasoned practitioners" (i.e. eligible to become certified under the grandparenting pathway). Only a small percentage reported being graduates of, or currently enrolled in, an accredited 800-h yoga therapy program, with the remaining respondents mostly holding a 500-h RYT or equivalent qualification. The new standard for the credentialing of yoga therapists (i.e. the 800-h program) and the emergence of a master's level program in yoga therapy parallels similar patterns of increasing training requirements observed in other CIH disciplines.[24]

4.5. Integration with other healthcare modalities

More than one-third of respondents reported utilizing conventional healthcare modalities in addition to yoga in their practice, although the extent to which yoga therapy was used in conjunction with or separate from these other modalities was not ascertained. Whilst earlier studies point toward disillusionment with conventional health care and the attraction of CIH therapies as key motivations for therapists exiting conventional health care disciplines in order to pursue private CIH practice,[32] it is not clear if these motivations apply to the practice of yoga therapy.

Table 4
Service characteristics of sample – 1:1 yoga therapy sessions.

Variable	Subcategory	Result
Number of 1:1 yoga therapy sessions conducted per month, *n* (%)	None	22 (6.0)
	1–5	111 (30.2)
	6–10	80 (21.8)
	11–15	48 (13.1)
	16–20	34 (9.3)
	21–25	22 (6.0)
	Over 25	38 (10.4)
	Missing	12 (3.3)
Average duration of an initial 1:1 yoga therapy session, *n* (%)	Less than 45 min	2 (0.5)
	45 min	13 (3.5)
	60 min	95 (25.9)
	75 min	65 (17.7)
	90 min	100 (27.2)
	120 min	41 (11.2)
	More than 120 min	1 (0.3)
	Other	6 (1.6)
	Missing	44 (12.0)
Average duration of a follow-up 1:1 yoga therapy session, *n* (%)	Less than 45 min	5 (1.4)
	45 min	23 (6.3)
	60 min	198 (54.0)
	75 min	45 (12.3)
	90 min	36 (9.8)
	120 min	7 (1.9)
	Other	9 (2.5)
	Missing	44 (12.0)
Average fee charged to people participating in an initial 1:1 yoga therapy session (US dollars), *n* (%)	None	27 (7.4)
	$1–10	4 (1.1)
	$11–20	5 (1.4)
	$21–30	3 (0.8)
	$31–40	7 (1.9)
	$41–50	26 (7.1)
	$51–99	143 (39.0)
	$100–199	99 (27.0)
	$200 or more	9 (2.5)
	Missing	44 (12.0)
Average fee charged to people participating in a follow-up 1:1 yoga therapy session (US dollars), *n* (%)	None	22 (6.0)
	$1–10	5 (1.4)
	$11–20	5 (1.4)
	$21–30	3 (0.8)
	$31–40	14 (3.8)
	$41–50	33 (9.0)
	$51–99	170 (46.3)
	$100–199	69 (18.8)
	$200 or more	2 (0.6)
	Missing	44 (12.0)

The incorporation of yoga therapy by practitioners of conventional healthcare may illustrate the creation and greater marketability of integrative practices. Differences in the average number of hours spent per week in clinical practice between yoga therapists (i.e. 8 h a week) and other CIH professionals (i.e. 15–35 h per week)[24,25] and the relatively lower income derived from yoga therapy compared to other CIH professions,[24] are important distinctions. Further market analysis, and the dissemination of evidence and potential benefits from integration with conventional medicine, may help to foster yoga therapy as a fulltime career choice.

4.6. Heterogeneity and clarification of practice

Yoga therapists report being informed by twenty different styles of yoga, with some using more than one approach; this reflects substantial variability and heterogeneity of practice. Though positive results have been found for the effects of yoga for various conditions regardless of the style,[5] there are substantial differences in the emphasis, composition and teachings of yoga practices between styles; this complicates the establishment of best practices for specific conditions, as well as clarity for public usage and referral guidelines for healthcare providers.[33–36] Analogously, barriers to yoga in adults with low back pain have been reported as inadequate, inaccurate information and misunderstandings of the practice,[37] while healthcare practitioners report basing referrals to yoga practitioners on personal practice over any other factor.[36] Furthermore, the variability in styles and inadequate reporting of research interventions is problematic for building a strong evidence-base to inform yoga professionals, the public, and healthcare providers.[4] Identification of common core principles and practices, as well as the creation of a shared language among yoga therapists, may help in building a clearer identity for yoga therapy, developing a stronger

Table 5
Characteristics of consumers that consult participating yoga therapists.

Variable	Subcategory	Result
Conditions generally seen in clients participating in yoga therapy classes or 1:1 sessions[a], *n* (%)	Anxiety	281 (76.6)
	Back/neck pain	281 (76.6)
	Joint pain/stiffness	244 (66.5)
	Chronic pain	236 (64.3)
	Arthritis	225 (61.3)
	Depression	222 (60.5)
	Insomnia/Difficulty sleeping	199 (54.2)
	Muscle pain or strain/tendonitis	199 (54.2)
	Fatigue/lack of energy	193 (52.6)
	Fibromyalgia	171 (46.6)
	Headaches/migraines	161 (43.9)
	Neurological disorders (incl. MS, PD)	158 (43.1)
	Stomach/intestinal illness (incl. IBS)	142 (38.7)
	Nerve damage (incl. CTS)	134 (36.5)
	Cancer	134 (36.5)
	Hypertension	100 (27.2)
	Diabetes	74 (20.2)
	Menopause/erectile dysfunction	61 (16.6)
	Menstrual problems	47 (12.8)
	Gynaecologic problems	47 (12.8)
	PTSD	19 (5.2)
	Addiction	10 (2.7)
	Heart disease	8 (2.2)
	Eating disorders	4 (1.1)
Client groups typically participating in yoga therapy classes or 1:1 sessions, *n* (%)	Infants (aged <1 year)	2 (0.5)
	Children (aged 1–11 years)	24 (6.5)
	Adolescents (aged 12–17 years)	42 (11.4)
	Adults (aged 18–59 years)	311 (84.7)
	Older adults (aged ≥60 years)	243 (66.2)

CTS – Carpal tunnel syndrome; IBS – Irritable bowel syndrome; MS – Multiple sclerosis; PD – Parkinson's disease.
[a] Multiple response question.

evidence-base for yoga therapy, and improving understanding of the benefits of yoga practice.

Contributing to the heterogeneity of yoga therapy practice and the lack of clarity regarding the role of this emerging profession, is the need for a clearer distinction of yoga therapy from general yoga teaching. Generating a clear explanatory framework and definition of yoga therapy practice will assist the discipline in becoming a recognized complementary and integrative health profession; this will also help in building the evidence base of the field.

4.7. Conditions seen

Adding to the complexity of yoga therapy practice are the myriad conditions for which yoga therapists report providing care. While the conditions yoga therapists report commonly working with are aligned with the literature demonstrating the public's use of yoga, there is an inconsistency between these conditions and the yoga therapy evidence base. Both yoga therapists and consumers report musculoskeletal and mental health conditions as the most commonly addressed, while cardiovascular and neurological conditions are less frequently seen by yoga therapists or sought by the public.[15–19,33,35] In contrast, most yoga research to date, according to a recent bibliometric analysis of studies published between 1967 and 2013, indicates a focus on mental health and cardiovascular disease, often with positive results.[4] Recent work has also demonstrated relatively strong evidence for the use of yoga in low back pain.[9,11,38–42] This highlights a possible gap between the interests of knowledge producers (i.e. researchers) and the needs of knowledge users (i.e. therapists and consumers). This perceived gap may be narrowed by directing research efforts towards the effectiveness of yoga therapy for the less studied areas of neurological and musculoskeletal pain conditions (other than low back pain), and improving education of yoga therapists, consumers and other healthcare professionals about the evidence for the better researched areas of cardiovascular health, mental health and low back pain.

4.8. Limitations

Despite an adequately-sized and demographically-diverse sample, the study had limitations. First, the use of the IAYT mailing list as the sampling frame may not have enabled the survey to reach all yoga therapists across North America; this may limit the representativeness of the sample. Second, as there was limited representation from Canada and no representation from other countries, the findings may only be generalizable to US yoga therapists. Third, the survey required people to self-identify as a yoga therapist at a time when the credentialing of yoga therapists had not yet commenced. While there is a process underway to certify and grandparent yoga therapists, the survey was administered prior to the commencement of that process; this was intentional as it served to characterize the current yoga therapist workforce before the implementation of these formal certification processes. This information will provide a useful foundation for future studies exploring the impact of credentialing on the yoga therapy profession.

Asking participants to distinguish the teaching of yoga therapy from the teaching of yoga classes may have presented a challenge for practitioners within an emerging profession where the definition of the discipline continues to evolve. The difficulty and ambiguity in making a distinction between yoga therapy and general yoga teaching is acknowledged as a limitation of this study, and

the development of the field in general. Another limitation is that few participants did not respond to a small number of questions; this missing data provides some uncertainty about the characteristics of these respondents. As a final point, this survey did not gather information about race nor ethnicity of respondents. This information might have helped to explore the extent the demographic make-up of the yoga therapist workforce contributes to yoga underutilization and inequitable access by underserved or marginalized groups.

5. Conclusion

This study reveals for the first time the personal, professional, practice and service characteristics of the North American yoga therapy workforce; it also extends current understanding of yoga therapy consumers. The findings allude to a predominantly middle-aged, part-time, low-income workforce, which for many may not be a first career choice. Whilst yoga therapy is an evolving discipline, induced by the recent introduction of therapist credentialing and program accreditation, it faces a number of obstacles to being fully embraced by health consumers and other health care providers; these include the substantial diversity of practice styles, possible suboptimal access by underserved populations, and the probable gap between research findings and clinical practice. These obstacles present important opportunities for yoga therapy to grow as an esteemed, evidence-based health profession.

Author disclosure statement

No competing financial interests exist for ML and JS. MS reports personal fees from yoga teacher and yoga therapy trainings outside the submitted work and trains yoga professionals in academic and continuing education settings. SM reports personal fees from Yoga for Arthritis, outside the submitted work; and trains yoga professionals in academic and continuing education settings.

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