Interprofessional Continuing Education Partnership
UNIVERSITY OF WISCONSIN–MADISON

School of Medicine and Public Health
School of Nursing
School of Pharmacy

Digging Deeper: Examining the Results of Annual Evaluation Survey to Explore Diverse Perspectives About Interprofessional Learning

Barbara Anderson, MS[a], Marianna Shershneva, MD, PhD[a], James E. De Muth, PhD, RPh[b]
[a]Office of Continuing Professional Development, University of Wisconsin School of Medicine and Public Health, [b]Professor Emeritus, School of Pharmacy, University of Wisconsin
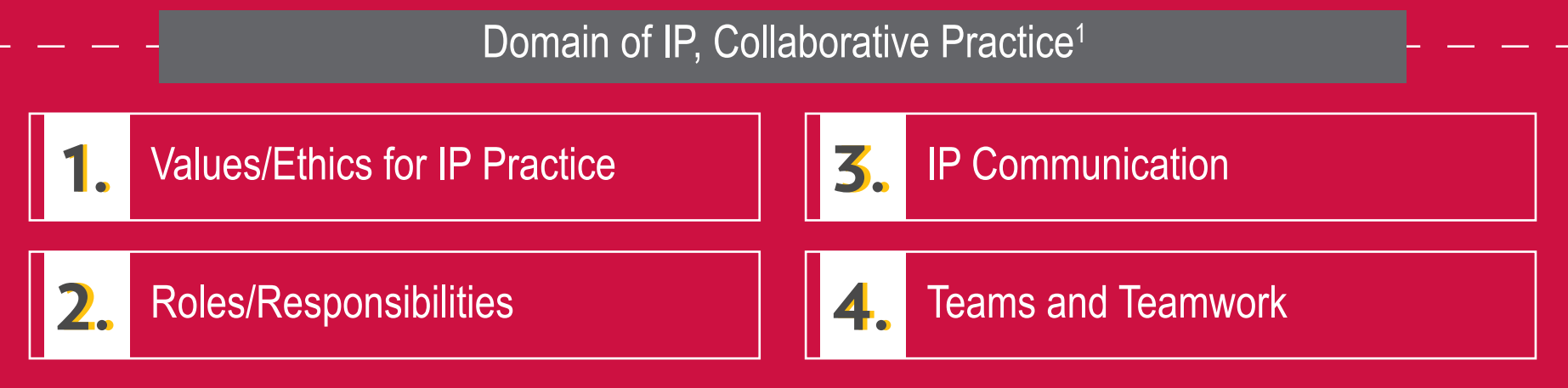
Introduction

The University of Wisconsin-Madison Interprofessional Continuing Education Partnership (ICEP) conducts an annual evaluation survey of participants in educational activities offered through the ICEP program. This survey was established four years ago and we continue to explore how to use the data in the most efficient and impactful way to inform the development of our overall interprofessional (IP) program and future IP activities.

Methods

We analyzed the results of 2019 survey focusing on responses to four questions that addressed learner perspectives about who are members of their healthcare team, definition of IP learning, value of IP education, and barriers to collaborative practice.

Theoretical Framework

Domain of IP, Collaborative Practice[1]	
1. Values/Ethics for IP Practice	3. IP Communication
2. Roles/Responsibilities	4. Teams and Teamwork

Data Analysis

We completed descriptive statistics of quantitative and categorical data, and evaluated differences by profession in responses about the value of IP education using t-tests and one-way analysis of variance and subsequent post hoc comparisons. We also conducted analysis of definitions of IP learning provided by the respondents to reveal key themes, and similarities/differences in responses by profession. The coding tree representing elements of the definition was developed through open coding of the first 50 definitions and refined in the course of subsequent coding. All definitions were coded, using qualitative software NVivo 12, and emerging themes were discussed among the authors. Qualitative analysis of the definitions was complemented by chi square comparing frequencies of the definition elements by profession. All statistical tests were conducted with an *a priori* Type I error of 0.05.

Disclosure

The authors of the poster have no relevant financial relationship to disclose.
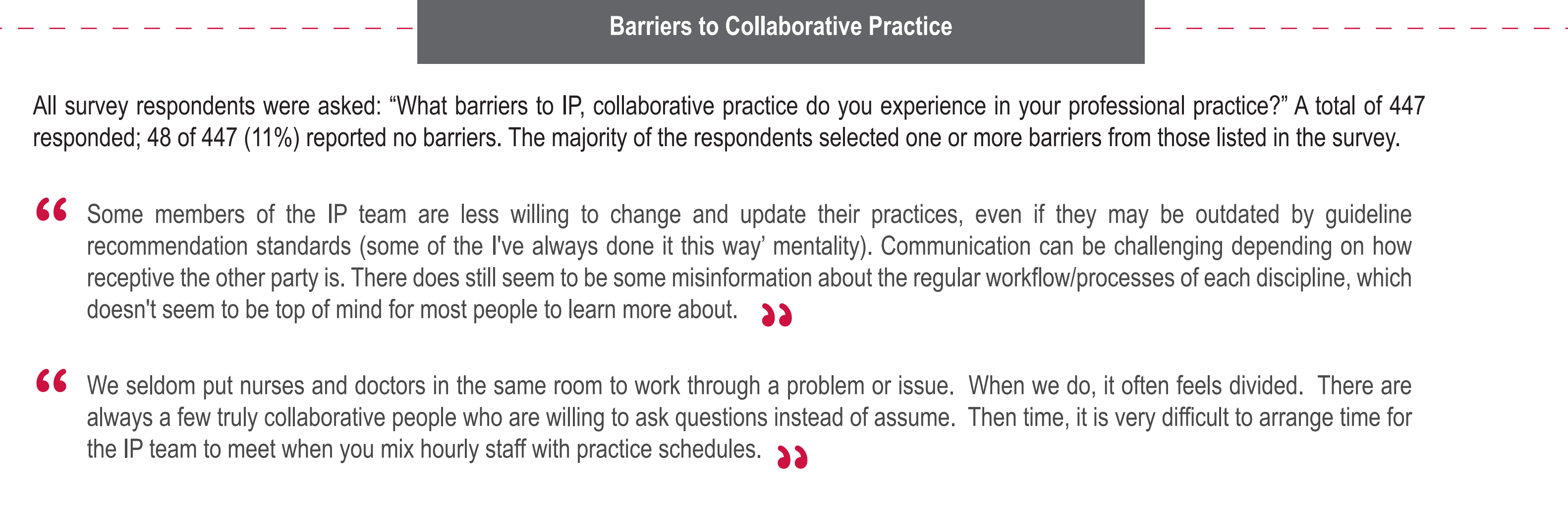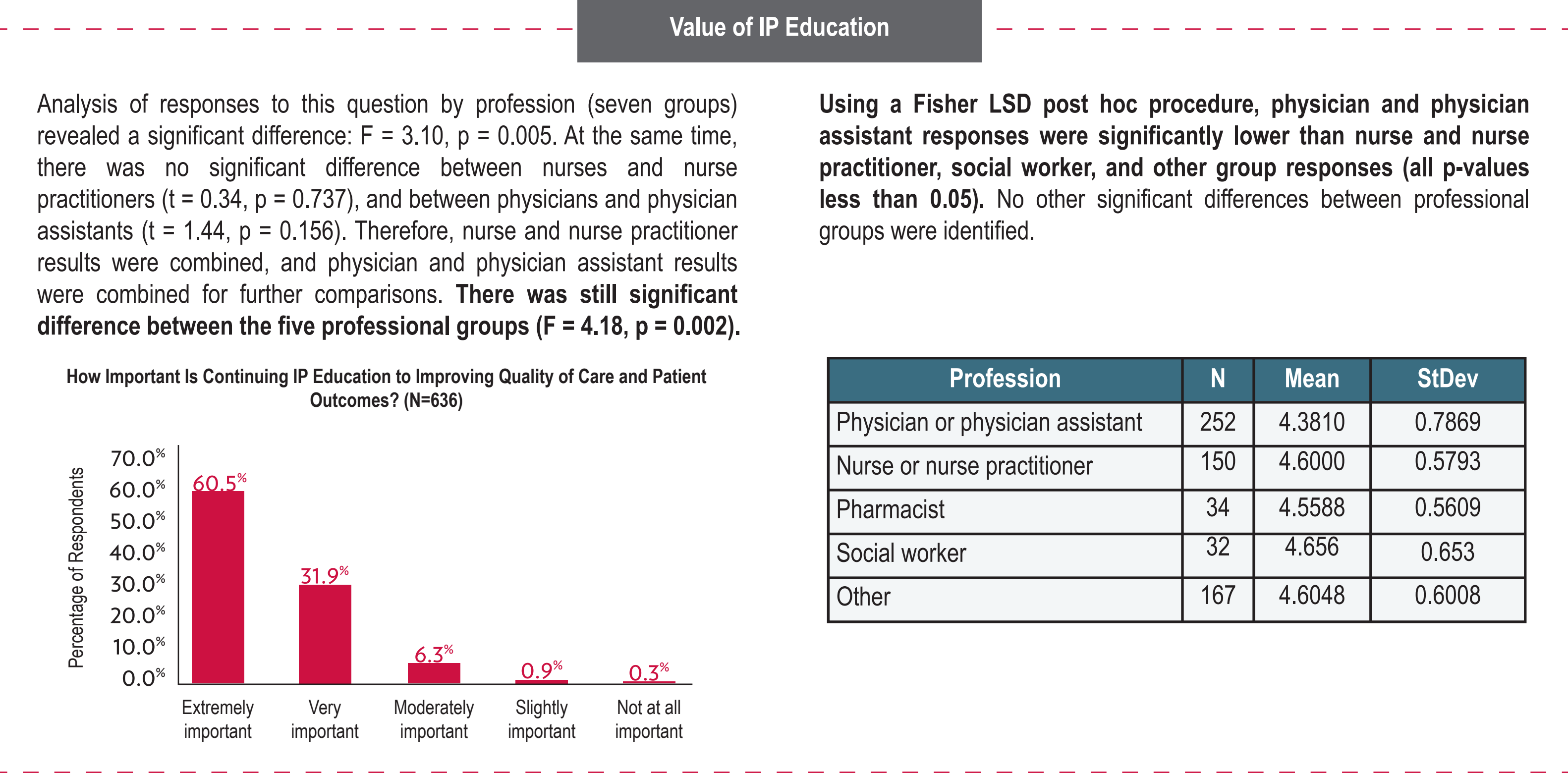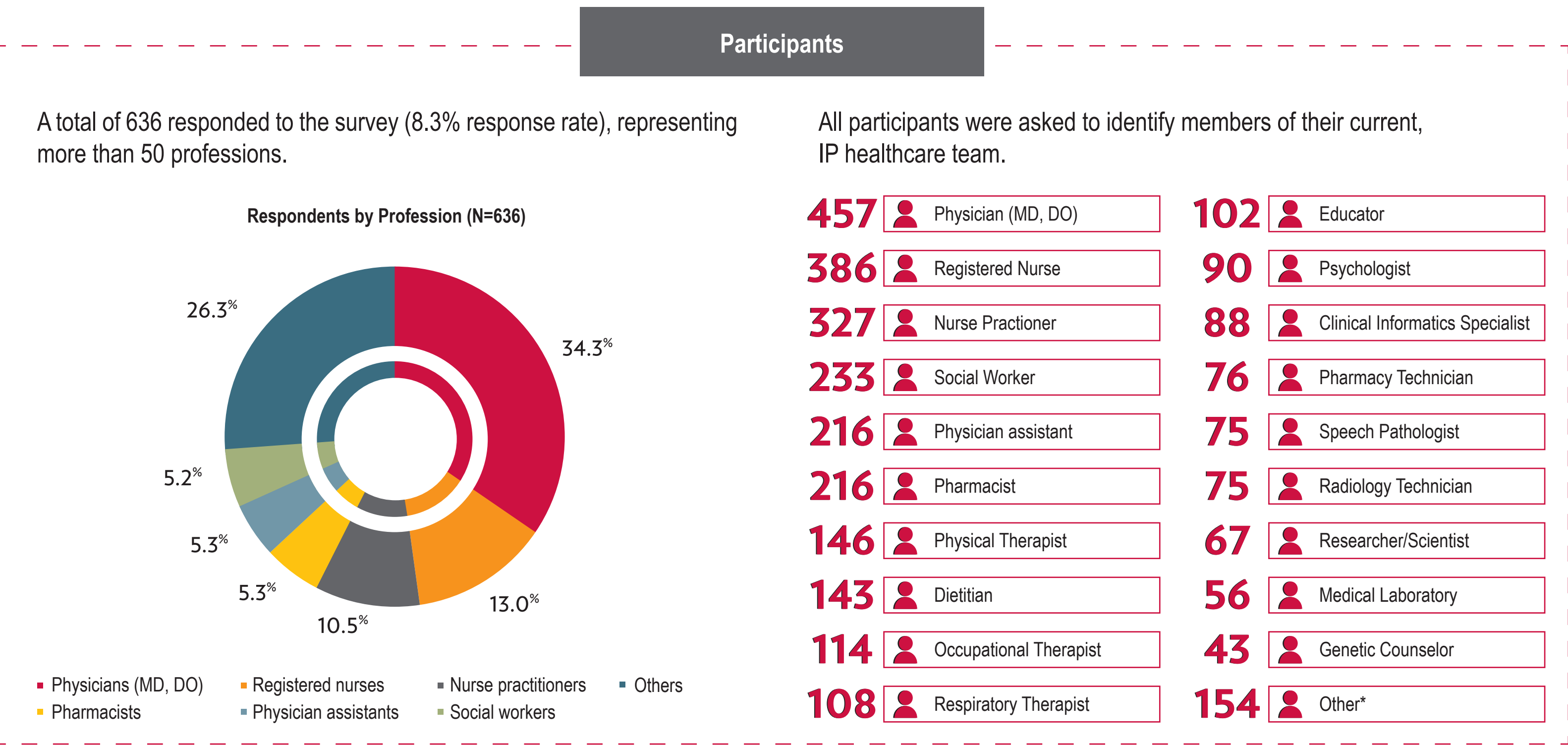
Acknowledgement

We would like to thank Brighin Kane-Grade for her contribution to qualitative analysis of IP learning definitions.

References

1. Interprofessional Education Collaborative Expert Panel. *Core Competencies for Interprofessional Collaborative Practice: Report of an Expert Panel.* Washington D.C.: Interprofessional Education Collaborative, 2011.
2. Sargeant J. Theories to aid understanding and implementation of interprofessional education. *J Contin Educ Health Prof.* 2009;29(3):178-184.
3. Sweeney K, Griffiths F, eds. *Complexity and Healthcare: An Introduction.* Oxford, United Kingdom: Radcliffe Medical Press; 2002.
4. Headrick LA, Wilcock PM, Batalden PB. Interprofessional working and continuing medical education. *Br Med J.* 1998;316(7133): 771–774.
5. Wranik WD, Price S, Haydt SM, et al. Implications of interprofessional primary care team characteristics for health services and patient health outcomes: A systematic review with narrative synthesis. *Health Policy.* 2019;123(6):550-563.

Results

Participants

A total of 636 responded to the survey (8.3% response rate), representing more than 50 professions.

Respondents by Profession (N=636)

34.3%
26.3%
5.2%
5.3%
5.3%
10.5%
13.0%

- Physicians (MD, DO)
- Registered nurses
- Nurse practitioners
- Others
- Pharmacists
- Physician assistants
- Social workers

All participants were asked to identify members of their current, IP healthcare team.

457 Physician (MD, DO)	**102** Educator
386 Registered Nurse	**90** Psychologist
327 Nurse Practitioner	**88** Clinical Informatics Specialist
233 Social Worker	**76** Pharmacy Technician
216 Physician assistant	**75** Speech Pathologist
216 Pharmacist	**75** Radiology Technician
146 Physical Therapist	**67** Researcher/Scientist
143 Dietitian	**56** Medical Laboratory
114 Occupational Therapist	**43** Genetic Counselor
108 Respiratory Therapist	**154** Other*

Value of IP Education

Analysis of responses to this question by profession (seven groups) revealed a significant difference: F = 3.10, p = 0.005. At the same time, there was no significant difference between nurses and nurse practitioners (t = 0.34, p = 0.737), and between physicians and physician assistants (t = 1.44, p = 0.156). Therefore, nurse and nurse practitioner results were combined, and physician and physician assistant results were combined for further comparisons. **There was still significant difference between the five professional groups (F = 4.18, p = 0.002).**

Using a Fisher LSD post hoc procedure, physician and physician assistant responses were significantly lower than nurse and nurse practitioner, social worker, and other group responses (all p-values less than 0.05). No other significant differences between professional groups were identified.

How Important Is Continuing IP Education to Improving Quality of Care and Patient Outcomes? (N=636)

- Extremely important: 60.5%
- Very important: 31.9%
- Moderately important: 6.3%
- Slightly important: 0.9%
- Not at all important: 0.3%

Profession	N	Mean	StDev
Physician or physician assistant	252	4.3810	0.7869
Nurse or nurse practitioner	150	4.6000	0.5793
Pharmacist	34	4.5588	0.5609
Social worker	32	4.656	0.653
Other	167	4.6048	0.6008

Barriers to Collaborative Practice

All survey respondents were asked: "What barriers to IP, collaborative practice do you experience in your professional practice?" A total of 447 responded; 48 of 447 (11%) reported no barriers. The majority of the respondents selected one or more barriers from those listed in the survey.

" Some members of the IP team are less willing to change and update their practices, even if they may be outdated by guideline recommendation standards (some of the I've always done it this way' mentality). Communication can be challenging depending on how receptive the other party is. There does still seem to be some misinformation about the regular workflow/processes of each discipline, which doesn't seem to be top of mind for most people to learn more about. "

" We seldom put nurses and doctors in the same room to work through a problem or issue. When we do, it often feels divided. There are always a few truly collaborative people who are willing to ask questions instead of assume. Then time, it is very difficult to arrange time for the IP team to meet when you mix hourly staff with practice schedules. "

- **16%** Time-related Issues — Count: 237
- **15%** Resistance to change — Count: 217
- **13%** Not understanding each other's roles and/or workflows — Count: 199
- **11%** Working in silos — Count: 161
- **11%** System barriers — Count: 156
- **11%** Professional bias/different perspectives — Count: 168
- **11%** Communication barriers — Count: 166
- **8%** Resource-related issues — Count: 125
- **1%** Other barriers — Count: 20
- **3%** No barriers — Count: 48

Respondents' Definitions of IP Learning

All participants were asked to define IP learning. A total of 360 participants responded to this question. Definitions varied (see examples below).

" *Method/Specific* — *Method/Together* — *Learners/Different*
Regular dialogue between professionals certified to work in different areas for the purpose of learning, understanding, expanding, and thinking through difficult concepts together. This includes discussion, reading research articles, reviewing patient cases and/or data, and sometimes working together on the same case.
Method/Working — *Method/Specific* "

" *What is learned/Related to IP domain/Roles and responsibilities* — *What is learned/Related to IP domain/Values and ethics*
Understanding the roles of other professions, learning perspectives and challenges of colleagues and working collaboratively to improve outcomes and overall patient care.
Method/Working — *Results/Practice or patient outcomes* "

Many definitions identified practicing clinicians as learners and, in particular, groups of practicing clinicians that are diverse by profession and/or specialty. Some definitions stated *where* IP learning occurs, indicating either workplace, classroom, or any environment where learners could interact. Definitions that specified *what* is being learned listed either content related to the four domains of IP practice (most commonly), content related to the clinical practice/research, or a combination of both. Of all the definition elements, *learning method* was mentioned most often. Many definitions had a *learning from other professionals* theme and/or a *learning together* theme. Also, many respondents identified IP learning as *working with others*. Some definitions described specific learning strategies, such as participating in grand rounds or daily huddles with best practice sharing. Notably, the words *"collaboration"* and *"sharing"* were commonly used when describing the learning method. Definitions that specified the *result of learning* often focused on improving clinical practice and/or patient outcomes, followed by statements about gained knowledge or other benefits to learners. Some definitions could be easily linked to one or more of the *domains of IP practice.* The roles/responsibilities domain was most represented in this respect.

Results of statistical comparisons of the frequencies of the following definition elements—*"what is learned", "learning method",* and *"results"*—revealed no significant differences by profession. The frequencies did not differ among the following groups: physicians, nurse practitioners, nurses, pharmacists, physician assistants, social workers, and others (χ^2= 8.335, p = 0.758).

Discussion

Value of IP education through the lens of different professions. In total, 92% of all survey respondents demonstrated high level of agreement regarding the importance of continuing IP education to improving quality of care and patient outcomes, saying it is "extremely important" or "very important." At the same time, they revealed relatively small but significant differences in responses to this question by profession. This could reflect traditional values embedded in education of different healthcare professions and variation in recognition of the importance of profession-specific content. These findings both encourage development of IP CME/CPD programs and strategic conversations of the meaning of IP education for achieving excellence within any given profession.

Many ways to define IP learning. We observed a great variation in definitions of IP learning provided by respondents, but our analysis suggested no differences among professions in the numbers of definition elements mentioned by different professional groups. Collectively, the respondents provided all-embracing and vibrant representation of IP learning that, in our opinion, should be celebrated by IP education advocates. We see many ways to utilize these definitions in IP educational activities—from creating an icebreaker to developing an exercise that engages participants in reflection and deep learning.

Connections to theory and published research. Our findings are consistent with several themes discussed in the literature:
- The *complexity theory* applied to IP education highlights the firm connection between IP practice and education.[2,3] This explains why many respondents defined IP learning as *working* in clinical environment with other professionals.
- One implication from theories of social identity, stereotyping, and professionalism is that focusing content on the patient and collaborative, patient-centered care should be an effective strategy in IP education that could reduce the concentration on self as professional.[2,4] Many survey respondents included improvements in clinical practice and/or patient outcomes resulting from IP learning in their definitions. These professionals seem to be ready for IP activities as they explicitly shifted the learning focus to what matters to their patients.
- Research continuously demonstrate importance of clarity about roles and responsibilities of the team members among critical characteristics of well-functioning, IP team,[5] Not surprisingly, of the four domains of IP practice, we could link the definitions most frequently to the roles/responsibilities domain.

Barriers to IP practice. Consistent with the results of surveys administered in the two previous years, the 2019 survey respondents reported barriers to IP, collaborative practice, many of which could be addressed by education, such as communication barriers and not understanding each other's roles and/or workflows.

Reflection on learning and practice. Reflection is integral to IP education.[2] Based on receiving many responses to open-ended questions and rich qualitative data, we speculate that our survey is a tool to facilitate reflection on learning and practice.

Implications for the survey. We have experienced lower survey rate compared to previous years and are implementing strategies to reverse this trend, such as dividing one annual survey into two surveys with shorter lists of activities for the respondent to choose from and shorter time intervals between the completion of the activity and the survey; and providing respondents with access to the survey results. We also consider adding more demographic questions and re-visiting the survey structure to identify the core questions to be asked each year *versus* "rotating" questions that could be included in the survey every other year or less frequently.

To conclude, our learner survey approach informs educational program improvement. There is value in conducting a focused, in-depth analysis of rich qualitative and quantitative data to develop insights into the culture shift in healthcare professionals' beliefs about and engaging in IP learning and collaborative practice.