Talking the talk in junior interprofessional education: Is healthcare terminology a barrier or facilitator?

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Abstract

Background: Use of jargon and complex healthcare terminology is a potential barrier to interprofessional education (IPE). Healthcare terminology can be separated into two categories: inclusive terminology shared amongst professions, and exclusive terminology unique to one profession. We sought to understand how terminology is perceived by junior learners in an IPE setting.

Methods: We conducted a mixed methods study involving medical, nursing, and physician assistant students attending IPE simulation workshops. Students reviewed scenarios used in the workshops and identified terminology they considered “inclusive” or “exclusive”. Then, students participated in focus group discussions surrounding attitudes/perceptions towards healthcare terminology.

Results: 23 students analyzed 14 cases, identifying on average 21 terms per case as healthcare terminology (29% of overall word count). Of the 290 terms identified, 113 terms were classified as healthcare terminology, 46 as inclusive and 17 as exclusive by >50% of participants. Analysis of focus group transcripts revealed 4 themes: abbreviations were commonly perceived as complex terminology, unfamiliarity with terminology was often attributed to being early in training even if exclusive, simulation was considered a safe space for learning, and learning terminology was a valued objective in early IPE.

Conclusions: Students perceive a lot of healthcare terminology in learning materials, which is recognized as a valuable learning objective in their early IPE experiences, but also a challenge. Categorization of healthcare language is inconsistent among students and may reflect individual differences in prior experiences. Overall, healthcare terminology is a valued desirable difficulty among junior learners, and should not be avoided in IPE.

Introduction / Background

Interprofessional education (IPE) involves individuals from multiple health professions learning with, from, and about one another in order to improve health outcomes [1]. Most frameworks for IPE emphasize effective interprofessional communication, which requires shared language between professions [18,19]. Among the many challenges associated with bringing individuals with different educational backgrounds together, use of jargon and complex healthcare terminology has been cited as a potential barrier to IPE [2-4]. In fact, healthcare terminology was identified as one of 10 key challenges of IPE in a recent large systematic review [4].

Several studies have identified terminology, particularly terminology not easily understood by learners including acronyms and pharmacological names, as a detractor from learning [5,6] and barrier to effective interprofessional collaboration [3]. In addition, previous research by our team into the perceptions of pre-licensure trainees’ readiness for IPE identified this as a local issue, as students commented that some of the terminology they experienced in IPE sessions involved advanced domain knowledge [7]. It is often time-consuming to ask for clarification of confusing or unfamiliar terminology

[8]. Furthermore, it can impact the way that healthcare professionals understand and relate to one another and work towards a unified goal [3,9].

Healthcare terminology can be especially challenging for pre-licensure trainees. These learners have little knowledge of healthcare terminology due to their limited workplace exposure. They are often less experienced in the healthcare field and may not have a fully formed professional identity [10]. Language is a critical component to socialization within any community [11] and an important component of professionalization and role formation [12-14]. This makes it particularly important to consider how healthcare terminology is integrated into interprofessional learning for this trainee population.

Past studies have looked at healthcare terminology under the label of jargon. Jargon carries with it an implicit negative connotation, as a unique technical sublanguage that is not well-recognized by out-group members [15-17]. However, upon close examination of these studies, it seems that healthcare terminology is used to describe two sets of language: language shared by multiple healthcare professions, and language unique to specific healthcare professions [3]. These types of healthcare terminology can be described as “inclusive” and “exclusive” language, respectively. Exclusive language is more often cited as an IPE challenge than inclusive language [2,3,5,6,8]. For example, during a program evaluation of a British model of IPE known as the Leicester Model, researchers observed that nursing and social work students struggled with terms that seemed to be geared towards medical students [5]. They identified specific terms such as ‘management plan’ and ‘history taking’ as exclusive. Another study found that during a series of IPE sessions for nursing and medical students, professional jargons, such as nursing qualification acronyms, were a source of confusion [2]. A third study aiming to specifically reduce usage of profession-specific terminology among speech-language pathologists identified terms such as ‘articulation’, ‘graphemes’, ‘intelligible’, and orthography’ as exclusive language that hindered collaboration and communication with educators in school communities [8]. In response to this literature, several IPE guides and handbooks warn against the use of heavy use of discipline-specific language, as it can be a barrier to interprofessional interactions [20,21], and could impair trainees ability to clarify their professional roles effectively [20,21].

Despite the literature focus on the harms of exclusive language, even inclusive language could be a barrier to learning for pre-licensure trainees in the early stages of training. Students participating in IPE sessions may not all be in the same year of training and do not share the same profession-specific curricula. Profession-specific curricula may introduce different vocabulary at different timepoints, impairing the ability of these junior trainees to find common ground to communicate, collaborate and define their professional roles relative to each other.

This study focuses on understanding how pre-licensure trainees perceive terminology when they encounter it in their early IPE experiences. Through our study, we seek to understand if undergraduate learners actually observe a difference between “inclusive” and “exclusive” language and reliably categorize healthcare terminology as one or the other. We conducted a mixed-methods study to explore the following research questions:

- To what extent is healthcare language reliably identified by pre-licensure healthcare trainees, particularly undergraduate medical, nursing, and physician assistant students, in IPE learning materials?
- To what extent are “inclusive” and “exclusive” terms universally perceived and distinguished from one another by students of different healthcare backgrounds? Is one more problematic than the other?
- How is healthcare terminology perceived and valued by pre-licensure healthcare trainees in an IPE setting?

Methods

Participants

Participants included 45 students currently enrolled in the undergraduate medical education program (MD students), nursing program (RN students), and physician assistant program (PA students) at McMaster University. MD, RN, and PA students represent three unique groups of healthcare profession trainees, who differ in the nature of their clinical experiences and classroom training. All students were recruited before licensure or graduation. The online survey component of the study (Part 1) and focus group discussions (Part 2) involved different participants. 7 RN, 15 MD, and 1 PA students participated in Part 1, while 7 RN, 14 MD, and 1 PA students participated in Part 2.

Recruitment

Part 1: MD, RN, and PA students who have previously participated in educational activities at McMaster University’s Centre for Simulation-Based Learning (CSBL), were notified via e-mail of the opportunity to participate in a 15-30 minute online, and were asked to respond if they were interested. Students who completed the survey received a $10 Amazon gift card as a reimbursement for their time.

Part 2: MD, RN, and PA students who were registered to participate in a simulation case-based IPE workshop at the CSBL were asked to participate in a 1-hour post-workshop focus group session following the workshop. Participation in the study was optional and had no impact on their experience within the workshop itself.

Consent

Students were informed of the nature of the study in a consent form detailing the risks and benefits of participation. They were asked to sign the consent form and were offered a copy for their records.

Content Delivery and Data Collection

Part 1: Participants were e-mailed a form comprised of 14 written scenarios taken from the CSBL’s existing IPE courseware. These scenarios existed as educational content for three years prior to the study. The material came from recurring workshops held at the CSBL, and were created by developers from

different backgrounds, including educators, healthcare professionals, and trainees. Minor revisions were made from year to year by educational facilitators, but all revisions pre-existed the study. No details of the scenarios were changed for the purpose of the study. Prior to distribution of the form, it underwent pilot testing by four CSBL staff members of different professional backgrounds including educators, healthcare workers, and trainees. The results of the pilot test confirmed that the questions were understandable, no training or additional information was required for use, and that the task was feasible in a short time frame. The scenarios encompassed a variety of clinical settings and disciplines (Table 1). Participants were also provided with clear definitions of healthcare terminology and its two subgroups (inclusive and exclusive language), and were prompted to describe their understanding of these terms in their own words. Then, they were asked to (a) highlight all words they considered to be “inclusive language”, and (b) circle all words that they perceived to be “exclusive language”.

Participants’ responses were anonymized and compiled.

Part 2: MD, RN, and PA students attended an optional 2-hour case-based IPE workshop, pre-existing this study, anchored around the CIHC framework, related to either transitions to workplace learning or handover of care. The workshops were developed by a team of faculty educators and students from both undergraduate nursing and medicine. The workshops were offered to all RN, MD, and PA students. At the end of each workshop, students were asked to participate in a 1-hour focus group in order to better understand perceptions and attitudes surrounding healthcare terminology and jargon, and their consent was obtained at this time. The focus group was facilitated by three members of the research team (A.A. posed questions, while S.N. and D.U. took notes), and consisted of a few open-ended questions. Focus group dialogue was transcribed, and participant’s names were replaced with non-identifying codes.

Data Analysis

Descriptive statistics were utilized to analyze the online survey responses. The most common healthcare terms were identified, as well as the frequency they were identified by participants. Quantitative methods included calculating the percentage of words coded as healthcare terminology identified in total and its division into inclusive and exclusive terminology, tabulated as a function of all words present. Qualitative analysis of focus group discussion transcripts was informed by content analysis and the Colazzi method [22,23]. Three investigators independently read and reread all transcripts identifying key themes using a constant comparative approach. Consensus discussion resulted in iteration of the themes, with finalization of selection of quotes by the research group. Member checking, informed by the synthesized member checking method [24], was performed with a group of 9 students, after the consolidation of themes, to add rigour to the data.

Ethics

This project was approved by the Hamilton Integrated Research Ethics Board on October 15, 2019 (project #7821).

Results

Online Survey

23 students (15 MD, 7 RN, 1 PA) analyzed 14 cases taken from the CSBL's IPE courseware (Table 2). The cases covered a range of healthcare settings (e.g. obstetrics, emergency, internal medicine) and medical conditions. Students were asked to identify words they perceived as inclusive vs. exclusive. In total, 290 terms (28% of total word count) were identified as healthcare language (inclusive or exclusive), 285 terms as inclusive, and 196 terms as exclusive by at least one participant (Table 3). 4 terms were classified as healthcare terminology by 100% of participants, although no terms were classified unanimously as inclusive or exclusive

(Appendix A-C). Of the 290 total words identified, 113 words were classified as healthcare terminology, 46 as inclusive, and 17 as exclusive by >50% of participants (Figure 1).

Focus Group

22 students (14 MD, 7 RN, 1 PA) participated in focus groups following participation in the IPE simulation workshops (see Table 2). Participants shared perspectives that highlighted both the challenges and benefits of introducing terminology in early IPE experiences. They shared insights from their clinical experiences and made comparisons between these experiences and the current workshop. Several key themes emerged from the focus group discussion.

Theme #1 – Abbreviations and acronyms as a form of complex healthcare language

When prompted to reflect on their experiences with healthcare language, many participants pointed to the heavy use of abbreviations in the clinical setting. Abbreviations were largely regarded as a barrier to interprofessional and interdisciplinary communication, particularly when the same abbreviation had multiple meanings depending on the clinical setting or profession. Rather than improving the efficiency of communication, students felt that abbreviations resulted in a greater amount of time spent attempting to decipher the language and ensure the term is interpreted correctly.

One of the (cases) said ROM…I was like, "Oh, that's probably ruptured membranes," but, is it? And having to take the time to search the rest of the chart data, to see if that's what I'm thinking it is, probably takes longer than someone just actually writing out ruptured membranes.

I don't remember what it was, but it was a three letter kind of thing. And to the nursing students it meant one thing and to the medical students it meant a completely different thing, but it was the exact same three letters. It's really interesting that we have things like that, and for people that work so close together, that we have such confusing terminology…it obviously can lead to a lot bigger issues.

Theme #2 – Unfamiliar terminology: product of being an early learner or exclusionary?

Participants found it challenging to decide whether a term was exclusionary as they were unsure of whether to attribute it to a lack of clinical experience or professional differences.

One specific example I could think of was about the MAR... I'm only three months into my program, so I have no idea what it was, but it was interesting hearing how much each type of professional used it, and under what context they did.

However, two individuals commented specifically on the potential value of encountering exclusionary, profession-specific terminology in early IPE experiences, explaining that as long as it continues to exist in the workplace, it might be beneficial to gain exposure to it early on.

I think as long as it's continued in hospital…until it's fully changed I think it is beneficial to have here because realistically, as it will continue to be used in hospital, it does help to put this into clinical setting now, whether we fully believe if it should be used or not long term.

Theme #3 – Simulation as a safe space

Participants commented on the comfortable, safe nature of this early simulation-based IPE experience. They felt that it was easier to ask for help from facilitators and peers and learn complex terminologies compared to in the clinical setting. They appreciated that this was a setting devoted to learning, where mistakes could be made without consequences and in the absence of patient care responsibilities.

This is a learning space. I think one of the facilitators actually mentioned that explicitly. She was like "This is a safe space. You're not expected to know everything and that's okay, just ask."

Participants drew comparisons to clinical settings where they commonly encounter new medical jargon but find it difficult to ask for help, due to the fast-paced environment where stakes are higher, and where healthcare professionals may play a role in evaluation of the individual. In the clinical setting, students were more likely to conduct an internet search in order to learn terminology, rather than asking for help.

A lot of times during horizontals, you don't get the chance to ask questions, because everyone's really busy with their own thing. So I think it's really helpful to learn about it in more of an academic setting as opposed to a clinical setting.

Theme #4 – Value of complex terminology as a desirable difficulty in early IPE

Participants pointed out the additional cognitive effort required in integrating complex terminology early, and the ways in which it could be challenge learning.

I just felt like it took me a lot of effort to read everything, internalize it, and then regurgitate it. And then to have to decipher it on top of all that.

However, participants pointed out specific benefits of utilizing healthcare terminology, perhaps terminology with even greater complexity what is taught in their respective programs, in early IPE

experiences. They appreciated that the cases were reflective of their real clinical experience.

I definitely don't think that the cases should be dumbed down, even though I'm in first year and I don't know a lot, but it's just because, they weren't so complicated that we couldn't get the big picture, or the main points at all. Even though there are some words that we didn't know, the big picture is very clear in each case, and because we read these cases, thought about it, and thought about how to do the hand-over in this slightly stressful situation, I don't think I'm gonna forget any of the new terms I learned here. So I think it's actually beneficial to have it a little bit more advanced than what we're learning in school.

At the end of each discussion, the participants were prompted to address the question of when in one's training would it be most optimal to introduce complex healthcare terminology in the interprofessional setting. The individuals who responded to this question and engaged in discussion suggested that it should be introduced as early as possible, perhaps even prior to any clinical exposure.

I actually think that people should do it as many times throughout their schooling as possible, because what you get in first year is gonna be very different than what you get in second year…it's gonna be very, very different, what you're able to take away and maybe contribute to other members in your group of varying learning levels as well.

Discussion

Through our study, we explored two types of healthcare language: inclusive language that is shared amongst healthcare professions, and exclusive language which is profession-specific. Our mixed method approach allowed triangulation and exploration of underlying constructs in a robust manner. We found that healthcare terminology in IPE educational materials was easily identified and categorized by pre-licensure trainees, although they frequently disagreed in what they perceived as inclusive or exclusive. Focus group discussions revealed that, although challenging, students valued encountering healthcare terminology early in their training, particularly in the interprofessional setting. They emphasized the importance of a safe and comfortable environment to facilitate learning. Our study has broad implications for both researchers and educators in the field of pre-licensure trainee IPE.

The inconsistencies noted in categorizing healthcare language among undergraduate healthcare students may relate to individual differences in depth and length of prior clinical exposure, or systemic differences in curriculum across training programs. It is possible that jargon is part of the hidden curriculum [25], becoming more recognizable over time as individuals socialize into their respective professions, and identify more easily their in-group versus out-group language. Nevertheless, focus group participants demonstrated a strong grasp of the constructs of “exclusive” versus “inclusive” language, and how the use of exclusive terminology impacts collaboration in the workplace. Recognition of terminology was often perceived as a ‘desirable difficulty’ of interprofessional learning. While the words themselves are identified as inclusive or exclusive during learning, they blend into regular lexicon as students spend more time learning in an interprofessional environment.

A key theme that emerged was the value of learning terminology in a “safe space”, such as the optional simulation workshops the participants attended. Elective simulation opportunities were recognized as unique spaces where students can learn terminology with more opportunity than workplace settings to clarify ambiguous or novel terms, and with less perceived identity and social risk. Other studies have also commented on the ability of simulation to provide a psychologically safe learning environment [26-29]. These studies also describe specific criteria that qualify simulation to be deemed safe, such as having approachable and accessible facilitators, allowing for mistakes to be made without consequences, including foundational components (e.g. orientation and preparation), and mandating that commitment be made by each participant to respect other learners [26,27]. The workshops attended by our study’s participants involved many of these characteristics. Participants commented that facilitators were particularly approachable, and contentedly deciphered challenging language. The workshop was entirely voluntary and separate from each program’s curriculum and evaluation, allowing students to feel comfortable making errors. Pre-workshop briefings gave students the necessary context to participate in the workshop, without the need to rely on prior knowledge. In addition, students agreed to a learning contract prior to participation in the workshop, which acted to preserve the psychological wellbeing of learners when asking questions.

Use of exclusive language is evidently a challenge not only in IPE settings, but in the workplace [30,31]. An interesting concept that arose through focus group discussions was the idea of systemic reinforcement of exclusive language, resulting in the need for junior trainees to know and understand exclusionary jargon, despite the implications of its usage for effective interprofessional collaboration. A study that surveyed dentistry students and faculty members found that 71.4% of participants learned jargon from their colleagues, and 38.25% learned jargon from their teachers, much of which involved non-standard abbreviations and terminology [32]. This suggests that the use of exclusive language is commonplace in the clinical setting, and can be passed colleague to colleague. In this study, students commented that exclusive terminology was worth learning through IPE workshops, because whether or not the terminology is appropriate, they are required to understand it in the workplace as it is used by others. They appreciated the opportunity to have discussions surrounding the usage and underlying meaning of exclusive terms.

Given this data, how should the educator approach healthcare terminology in IPE? One way is to treat healthcare terminology as an unwanted barrier or challenge that should be reduced. In the past educators have rewritten material that they felt contained confusing or exclusive terminologies [5]. However, our work lays foundation for another approach, which is to treat terminology as a learning objective in and of itself, and to allow time and facilitator guidance for students to decipher and learn the terminology themselves. In our study, students valued the opportunity to learn new vocabulary in a safe environment and did not want the scenarios to be simplified. They felt that the additional cognitive workload associated with learning terminology was manageable, and they were able to absorb terminology while simultaneously focusing on the workshop’s other learning objectives. They relied on one another and facilitators to learn this terminology collaboratively – ironically, this became a catalyst for true interprofessional learning in our workshops. Engineering this catalytic effect requires workshop

participants to have varied types of workplace exposures, allowing reliance on each other's unique experiences to decipher many unfamiliar terms.

In determining a framework to mitigate the challenges of terminology of IPE, we propose a spectrum of corrective action, where the intervention varies depending on contextual factors. On one end of the spectrum would be to remove all healthcare terminology from IPE learning materials, such as changing 'hypoglycemic' (see Appendix C) to 'having low blood sugar' and 'cellulitis' (see Appendix C) to 'skin infection'. Another method would be to provide the definitions of terminologies in advance [4]. On the other end of the spectrum, healthcare terminology would be treated as its own learning objective in addition to the session's existing goals, and to create a safe environment to learn terminology from interprofessional peers rather than eliminating it. Where the IPE session would sit on this spectrum is dependent on the participants, facilitators, and nature of the session's objectives.

Limitations

Through this study, we were able to gather data from trainees of three different healthcare backgrounds (medicine, nursing, and physician assistant programs). However, we had a disproportionate number of MD students participate in both the survey and focus group, and a significantly greater number of female than male students. A greater sample size and diversity in participants, including more RN and PA students in varied stages of their program, would allow for sub-analysis by program or program level. It would also be worth studying the perceptions and attitudes of other allied health professions including occupational therapists, physiotherapists, pharmacists, and social workers towards healthcare terminology.

In addition, we were only able to collect data from individuals in their early stages of healthcare training. While this carries validity from a learner perspective, we are unable to comment on the ability of more experienced healthcare professionals to reliably categorize terminology as inclusive or exclusive. Further studies could include this population in their analyses.

Finally, due to the voluntary nature of the workshop, survey, and focus group, we acknowledge an inherent bias as participants may have been more interested than their peers in participating in interprofessional learning activities.

Conclusion

Through our study, we learned that undergraduate trainees can easily engage in a conversation around healthcare terminology with facile understanding of the constructs of inclusive and exclusive language. These discussions were well-received even at an early stage of training. Elective simulation opportunities were perceived as unique spaces where students can learn the terminology with more opportunity to clarify ambiguous or novel terms than workplace settings with less perceived identity and social risk.

Existing literature that cautions against the use of jargon in IPE may need nuancing. Many students perceived healthcare terminology as a valued learning objective and facilitator of IPE. This work suggests that many more terms are considered inclusive than exclusionary, and even among exclusionary terms, there is poor agreement – perhaps all of these terms are reasonable to include in learning materials if the environment allows discussion of their underlying meaning. Educators should not simply remove all terminology from learning materials but consider carefully whether terminology adds to the learning objective.

Since there is little agreement on exclusive versus inclusive healthcare terminology, perhaps it is not as important to be concerned about these classifications and to instead focus on healthcare terminology as a whole. Thus, for educators we suggest: (1) making terminology a learning objective—this was well-received by students who recognize this as a genuine workplace challenge and not an artefact of educational materials; and (2) worry less about whether it is perceived as inclusive or exclusive. For researchers, we recommend: (1) studying how healthcare terminology perceptions change through the trajectory of training and (2) identifying the impact of terminology in sensitive healthcare processes such as handovers and transitions. Ultimately, it appears that for undergraduate healthcare trainees, healthcare language in general prompts students to learn with, from, and about one another, achieving the ultimate goal of IPE.

Abbreviations

IPE	interprofessional education
CIHC	Canadian Interprofessional Health Collaborative
MD	medical doctor
RN	registered nurse
PA	physician assistant
CSBL	Centre for Simulation-Based Learning

Appendix

Appendix A: List of Top 10 Healthcare Terms (and ties)

Term	Frequency Coded as Healthcare terminology
left thoracotomy	1.00
VE 6cms/100%/ +1	1.00
urosepsis	1.00
pleuritic pain	1.00
DVT	0.96
Tdap-IPV and MMRV	0.96
Kardex	0.96
s/p ex lap	0.96
exploratory laparotomy	0.96
splenectomy	0.96
sanguineous fluid	0.96
diuresis	0.96

Appendix B: List of Top 10 Exclusive Terms (and ties)

Term	Frequency Coded as Exclusive
s/p ex lap	0.78
VE 6cms/100%/ +1	0.77
left thoracotomy	0.70
Kardex	0.70
G1P0	0.70
G3P-0-0-2	0.64
exploratory laparotomy	0.61
splenectomy	0.61
external lead post explanation	0.59
pleuritic pain	0.57
MAR	0.57
6cm/100% effaced	0.57
early decelerations	0.57

Appendix C: List of Top 10 Inclusive Terms (and ties)

Term	Frequency Coded as Inclusive
hypoglycemic	0.78
edema	0.78
congestive heart failure	0.78
afebrile	0.74
asthma exacerbation	0.74
forehead laceration	0.70
poorly healing foot ulcer	0.68
diuresis	0.65
cellulitis	0.65
septic arthritis	0.65
nasal prongs	0.65
analgesia	0.65
oxygen saturation	0.65

Declarations

Ethics This project was approved by the Hamilton Integrated Research Ethics Board (project #7821). Consent was obtained from all participants.

Consent for publication Not applicable.

Availability of data and materials The datasets during and/or analysed during the current study available from the corresponding author on reasonable request.

Competing interests The authors declare that they have no competing interests

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Authors contributions SN and MS conceptualized the idea, and all authors were involved with data collection and analysis. SN drafted the manuscript with all authors contributing to revision. All authors have read and approved the final version of the manuscript.

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Tables

Table 1: Classification of scenarios contained in online survey.

Scenario	Discipline
1	Cardiology
2	Cardiology
3	Post-Operative Orthopedics
4	Internal Medicine
5	Pediatrics
6	Obstetrics
7	Geriatrics
8	Geriatrics
9	Internal Medicine
10	Internal Medicine
11	Cardiology
12	Emergency Medicine
13	Obstetrics
14	Endocrinology

Table 2: Demographic information of online survey and focus group participants

CATEGORY	NO. OF PARTICIPANTS (ONLINE SURVEY)	NO. OF PARTICIPANTS (FOCUS GROUP)
Program		
MD	15	14
RN	7	7
PA	1	1
Level/Year of Training[a]		
1	8	14
2	8	1
3	5	6
4	2	1
Age		
≤ 21	7	6
22 – 24	14	13
≥ 25	2	3
Gender		
Male	5	4
Female	18	18
Weeks of Clinical Exposure		
< 1 week	4	2
1 week – 1 month	3	10
> 1 month	16	10
TOTAL	**23**	**22**

[a]Program length varies by program. At McMaster University, the MD program is 3 years, the RN program is 4 years, and PA program is 2 years.

Table 3: Breakdown of healthcare language identified by at least one participant by case

Case	Total word count	# Healthcare terms[a] identified (% word count)	# Inclusive terms[a] identified (% word count)	# Exclusive terms[a] identified (% word count)
1	212	30 (32)	30 (32)	24 (25)
2	121	22 (45)	22 (45)	18 (40)
3	198	34 (29)	34 (29)	21 (16)
4	133	13 (17)	13 (17)	10 (12)
5	181	14 (17)	13 (14)	8 (9)
6	124	29 (42)	29 (42)	24 (36)
7	227	29 (30)	28 (29)	17 (20)
8	142	32 (38)	30 (37)	27 (32)
9	105	10 (16)	10 (16)	7 (11)
10	126	10 (17)	10 (17)	2 (4)
11	128	15 (18)	14 (18)	7 (10)
12	125	22 (43)	22 (43)	13 (18)
13	108	18 (40)	18 (40)	13 (27)
14	143	12 (15)	12 (15)	5 (7)
Total	**2073**	**290**	**285**	**196**
Average	**148**	**21 (28)**	**20 (28)**	**14 (19)**

[a]terms may be comprised of more than one word (e.g. oxygen saturation, two-person assist)

Figures

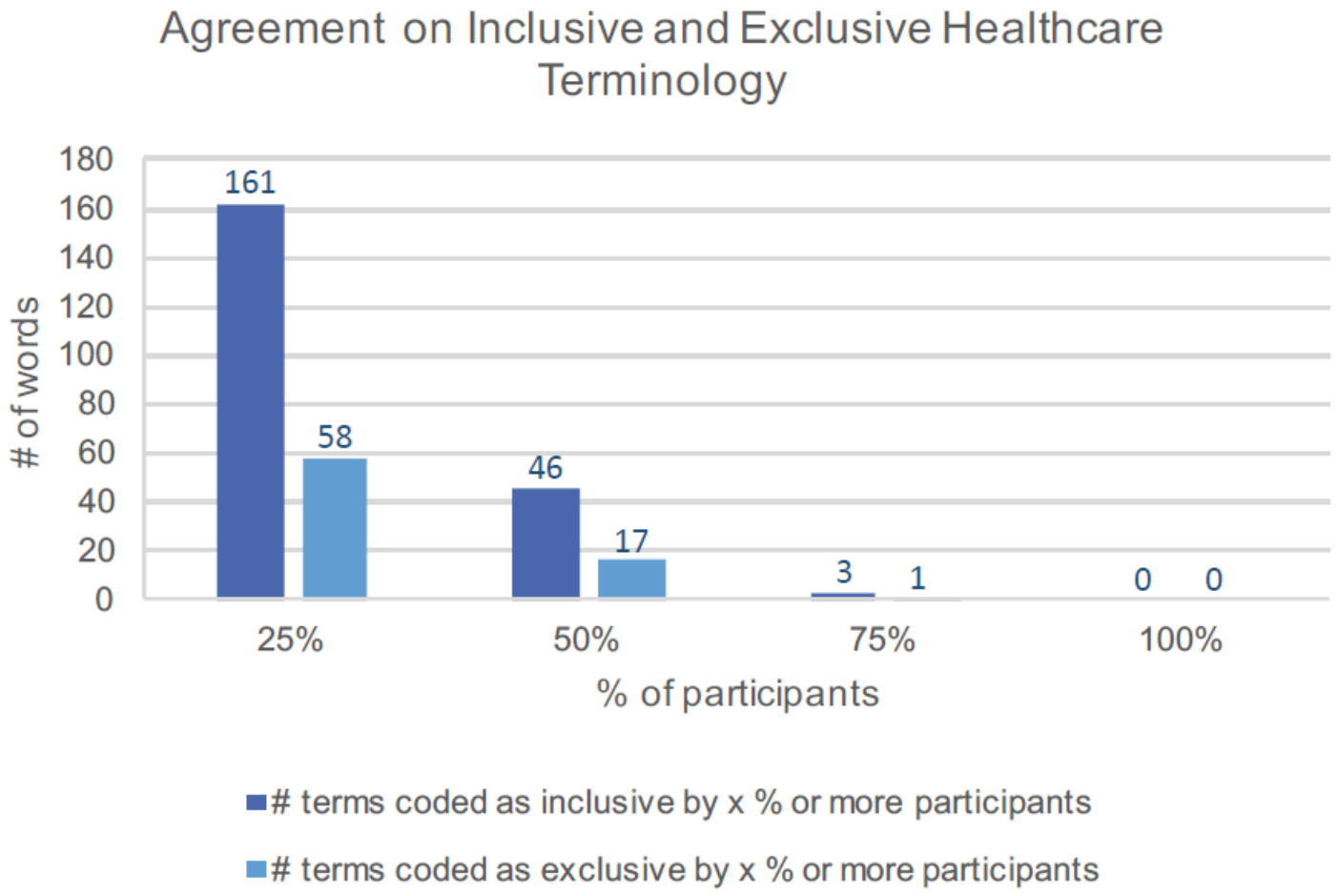

Figure 1

Agreement between participants on inclusivity or exclusivity of terms. Shown are the number of terms classified as inclusive or exclusive by 25%, 50%, 75% or more participants. No term was classified by all participants as either inclusive or exclusive.

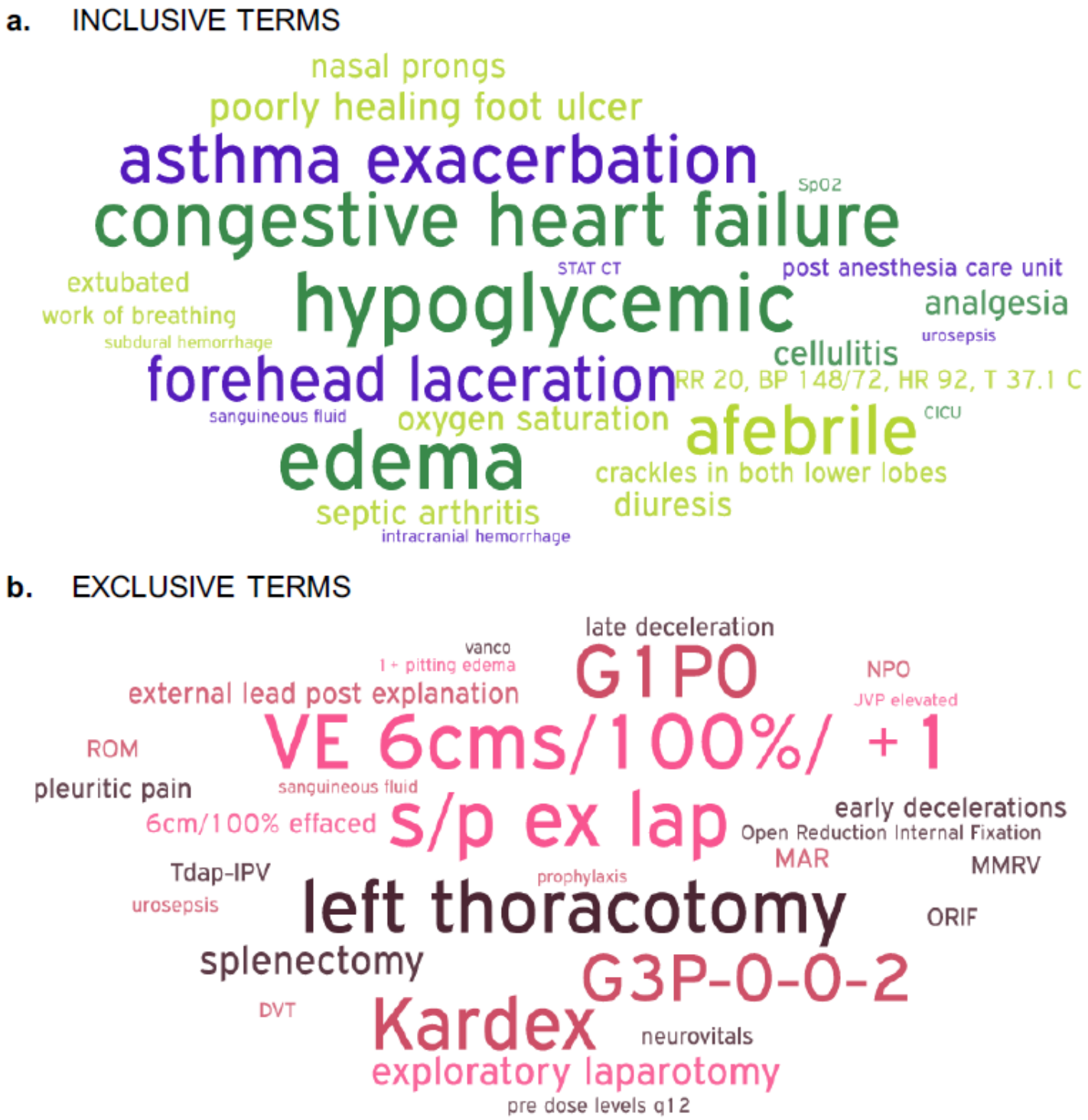

Figure 2

Word cloud of top inclusive (a) and exclusive (b) terms. Larger font size represents a greater frequency of categorization of a given word as exclusive or inclusive by the study participants.