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Exploring the Research Priorities for Occupational Therapy in India: A Descriptive Review

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Abstract

Background—Occupational therapists are considered an important workforce for the rehabilitation of persons with disabilities globally. However, in India, the profession is just beginning to gain recognition within the national and state-level systems for health care. One of the reasons for this could be the paucity of specific research related to the development of occupational therapy (OT) and its benefits to the health systems. Therefore, it is of immense public health importance to explore the priorities and gaps in OT research in India. A vast majority of the OT research in India is promoted and disseminated through the All-India Occupational Therapists Association (AIOTA) and its annual national conference (ANC).

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Conflicts of Interest

There are no conflicts of interest.

Objectives—The objective of this study is to descriptively review the conference abstracts of the AIOTA ANC published in the *Indian Journal of OT (IJOT)*, an official publication of the AIOTA, from 2017 to 2021.

Study Design—The study design was a descriptive, nonsystematic review.

Methods—Review of the abstracts selected for the AIOTA ANC published in the IJOT from 2017 to 2021. A data extraction form was developed and used to synthesize data related to the clinical and demographic characteristics of OT research in India.

Results—The search yielded 218 abstracts. State-level trends indicated that close to 85% of the research submissions were from four states and no submissions from the northeastern states until 2020. Nearly 60% of the abstracts were clinical research with OT interventions. About 40% of these research abstracts were related to pediatrics, followed by neurology (17%), musculoskeletal (15%), mental health (10%), and ergonomics and assistive technology (8%). There were 1%-2% of research abstracts submitted related to coronavirus disease-2019 (COVID-19) and geriatrics. About 85% of the research abstracts were related to impairment (39%), activity limitation (26%), and social participation (22%).

Conclusion—This review highlights the need for diversifying the research in OT in India. This is particularly important in relation to expanding from selected states to pan-India research and development, especially in the northeastern states. Furthermore, the focus of OT research must move beyond impairments and approach disability from the biopsychosocial perspective. It is also very important to diversify the research in OT to areas that are of public health importance such as COVID-19, geriatrics, noncommunicable diseases, and rehabilitation in health systems. Priority setting for research in OT in India is an important implication of this review.

Keywords

Disability; Health Systems; Occupational Therapy; Rehabilitation; Research

Introduction

Occupational therapy (OT) is a health profession concerned with promoting health and well-being through occupation.^[1] Its primary objective is to enhance independence in performing daily occupational tasks and promote their social participation.^[2] OT is a well-recognized, scientific health profession in high-income countries (HICs)^[3] where organized systems are evident to promote the science and development of the profession.^[4] For example, specific OT workforce, evidence-based OT service delivery, insurance coverage, policies, and pathways for the provision of evidence-based services have been developed, periodically reviewed, and implemented effectively with adequate funding, especially from government health systems in HICs.^[5] Continued efforts are underway to develop and retain the OT workforce in HICs.^[5,6]

Despite this, awareness and recognition for OT in India are just emerging, especially among people with disabilities (PWDs) who require such services.^[7] Interestingly, even among health-care providers in India, little awareness exists regarding OT.^[8] Not many government institutions in India have OT education or services.^[9] Given this situation, OT

as a profession and science is not as well-developed in India as other HICs.^[9] One of the potential reasons could be the paucity of specific research related to OT and its benefits to the health systems in India. A systematic review identified seven clinical trials with about 300 PWDs focusing primarily on interventions addressing impairments.^[10] In light of the lack of local, context-specific evidence in India, it is of enormous public health importance to comprehend OT research and how it impacts Indian health systems.^[8–10]

The All-India Occupational Therapists Association (AIOTA) conducts its Annual National Conference (ANC) every year to promote science and facilitate professional development in India. It uses its official publication, the *Indian Journal of Occupational Therapy* (IJOT) to disseminate the research presented in ANCs. It is important to note that the majority of the OT research conducted in India is either published in IJOT or presented in AIOTA ANC.^[10] Therefore, this review intends to explore OT research that has been conceptualized and conducted in India and for strengthening rehabilitation within the health systems of the country. Conducting this review could provide opportunities to understand priorities for OT research and to bridge the gaps in promoting OT as a science and profession in the world's second-most populous country that contributes significantly to the global burden of disability. Therefore, a descriptive review of OT research conducted and disseminated in India through IJOT during the past 5 years (2017–2021) is warranted.

Methods

A descriptive, nonsystematic review of all conference abstracts presented in the AIOTA ANC and published in the IJOT from 2017 to 2021.

Data Collection and Extraction

All the abstracts selected for the AIOTA ANC during the past 5 years from IJOT were retrieved, included, and reviewed. Five reviewers independently screened the abstracts included in the review. A data extraction form was developed for the review and each reviewer extracted data from one of the 5 years. The data extraction included information about study location, authors' affiliation, year, specific focus, details of the participants, intervention, outcome, results, and limitations. Two independent reviewers who were not part of the data extraction verified and confirmed data accuracy and consistency of the extracted data by all the reviewers. Disagreements if any, related to the data extraction were resolved through discussion and consensus.

Data Analysis and Synthesis

Extracted data were synthesized and analyzed descriptively. Given that data were extracted from the abstracts, it was decided during the conceptualization of the study that the data would not be analyzed for any associations/relationships. Data related to the methods sections of the included abstracts were synthesized separately for another review article describing the methodological details of these included abstracts.

Results

Two hundred and eighteen abstracts were identified from the AIOTA ANC abstract publications from 2017 to 2021 in the IJOT.^[11–15] State-level trends depicted in Figure 1 indicated that 182 (84%) research submissions were from Maharashtra 107 (49%), New Delhi 33 (15%), Karnataka 22 (10%), and Tamil Nadu 20 (9%). The number of submissions from these states has increased over the past years. The conference abstracts came from only 17 states and union territories out of the total 36 in India from 2017 to 2021. Notably, there was no submission from the northeastern states until 2020 [Figure 1]. Among the abstracts submitted, 137 (63%) were focused on clinical intervention research. Among these, 84 (39%) were clinical research focusing on OT interventions [Figures 2 and 3].

As shown in Figure 4, about 84 (39%) research abstracts published were related to pediatrics, followed by neurology 37 (17%), musculoskeletal 32 (15%), mental health 22 (10%), and ergonomics and assistive technology 17 (8%). There were only 1%-2% of research abstracts submitted related to coronavirus disease-2019 (COVID-19) and geriatrics. Most of the research abstracts were related to the International Classification of Functioning, Disability, and Health (ICF) domains, particularly impairment 85 (39%), activity limitation 57 (26%), and social participation 48 (22%), as can be seen in Figure 5.

Discussion

Findings from the review suggest that OT research in India is emerging over the years. There has been a gradual increase in the number of research submissions for the ANC from 2017 to 2021. Much of the OT research comes from academic institutions based in the state capital of four to five specific states. One research abstract was submitted from northeastern states in the past 5 years. Similarly, OT research abstract submissions from India's so-called poor performing (BIMARU) states in terms of the health systems, namely Bihar, Madhya Pradesh, Chhattisgarh, Rajasthan, and Uttar Pradesh, were also scarce.^[16] There is hardly any information on OT-related research from almost 50% to 60% of the states in India. Even in the states where OT research was conducted and submitted to the ANC from 2017 to 2021, the rural regions were not adequately considered.

Most of the OT research (63%) in India submitted to the ANC was clinical intervention research. It was about OT and non-OT interventions (interventions that are provided by professionals other than OTs and those that used techniques and approaches that professionals other than OTs use, for example, electrotherapy, massage, passive exercises, stretching, etc.) or understanding the associations and relationships of various clinical factors or specific diseases or health conditions. The remaining 37% of the submissions were nonclinical; however, their focus was very diverse. There was very little OT research related to the impact of the OT profession on the health systems of the country. Even some of the key clinical areas and conditions such as noncommunicable diseases (NCDs), geriatric health, disability, and national burden of diseases were not a part of the OT research submissions. However, these are important public health problems that the national and state health systems are targeting to improve the health outcomes of those who experience these health problems.

The results of this review clearly imply a few important aspects. First, the ANC research submissions' geography indicates a clear need for developing, implementing, and expanding OT research to a pan-India level. This could enable identifying key questions that need to be answered at every level of care in every state of India related to OT science and professional development. It could identify priorities for OT research in India, particularly in a state or the country as a whole. Second, the focus of OT research in India could move beyond the clinical aspects, for which there is already growing evidence from the HICs. The focus could undoubtedly be geared toward strengthening the systems for OT primarily and its contribution to the health systems of the state and the country. Given the lack of systems for disability and rehabilitation in the country, it is of huge significance to establish OT as a scientific profession in India and promote its development and impact on improving the effectiveness of the health systems. Finally, the domain of interest for OT research must expand from impairments to overall disability as defined by ICF.^[17] There are very few submissions that defined disability from a biopsychosocial perspective within the research submissions, where researchers considered disability as not only a biological problem (impairments) but something that implies psychological or social needs and issues.^[18] Therefore, exploring the benefits of OT interventions for overall disability is very pertinent.

This review has several strengths and limitations. To the best of our knowledge, this is the first exercise to understand the landscape and scope of OT research in India. The results of the review provide clear directions to researchers, academicians, and policymakers for OT as well as health and rehabilitation on what must be the priority and where precisely the gaps are. It also provides them with the opportunities to plan, secure, and allocate resources to bridge those gaps effectively. As every methodological expert would foresee, reviewing the abstracts of the ANC is a limitation of this review. This limitation impacted our findings, particularly regarding examining associations and relations among various findings in our review, and hence we had to summarize our findings descriptively. We recently completed a systematic review of the evidence for OT interventions in India using global databases.^[8] This experience helped us understand that not all OT researchers publish their research in the IJOT, the country's only national journal for OT. However, from a national perspective, we have observed that most OT research in India is submitted for the OT ANC by AIOTA. Hence, we decided to take this approach. We also had significant information from this review on the methodological aspects of the submitted abstracts, and we intend to publish those findings subsequently in a separate publication.

Conclusion

This review highlights the need for diversifying OT research in India, both in terms of its geographical coverage and its implementation for strengthening the health systems in the country. Results of this review are particularly important in relation to expanding from selected states to pan-India research and development, especially including the northeastern states. Furthermore, the focus of OT research must move beyond impairments and approach disability from the biopsychosocial perspective. It is also essential to diversify the OT research focusing on areas of public health importance and health systems such as

COVID-19, geriatrics, NCDs, and rehabilitation in health systems. Therefore, priority setting for research in OT in India is an important implication of this review.

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References

1. World Federation of Occupational Therapists. Position Statement on Client-Centredness in Occupational Therapy. WFOT; 2010. Available from: <https://wfot.org/assets/resources/Client-centredness-inOccupational-Therapy.pdf> [Last accessed on 2021 Sep 01]
2. Hammell KR. Client-centred practice in occupational therapy: Critical reflections. *Scand J Occup Ther.* 2013; 20: 174–181. [PubMed: 23256524]
3. World Federation of Occupational Therapists. Mackenzie L, Coppola S, Alvarez L, Cibule L, Maltsev S, et al. International occupational therapy research priorities. *OTJR (Thorofare N J).* 2017; 37: 72–81. [PubMed: 28081694]
4. Standards of practice for occupational therapy. *Am J Occup Ther.* 2015; 69 Suppl 3: 1–6.
5. Bolt M, Ikking T, Baaijen R, Saenger S. Occupational therapy and primary care. *Prim Health Care Res Dev.* 2019; 20: e27. [PubMed: 32799974]
6. World Federation of Occupational Therapists. Human Resources Project. 2014. Last accessed on 2021 Sep 03 Available from: <http://www.wfot.org/ResourceCentre.aspx>
7. Murthi KM. Evolution of occupational therapy practice in India: An overview of the historical foundation and current practice. *Ann Int Occup Ther.* 2019; 2: 141.
8. Mani K, Velan M. An investigation into medical practitioners' awareness of occupational therapy in South India: A survey. *Indian J Occup Ther.* 2020; 52: 12–18.
9. Kamalakannan S, Chockalingam M. The national commission for allied and health care professions bill 2020: Implications for occupational therapists and the AIOTA. *Indian J Occup Ther.* 2020; 52: 104–107. [PubMed: 34898824]
10. Kamalakannan S, Chockalingam M, Sethuraman L, Moorthy SD, Muthuvel T. Occupational therapy for reducing disabilities in persons with disabilities in India: A systematic review. *Indian J Occup Ther.* 2021; 53: 4–14. [PubMed: 34898825]
11. All India Occupational Therapists' Association. AIOTA conference abstracts 2017. *Indian J Occup Ther.* 2017; 49: 57–72.
12. All India Occupational Therapists' Association. AIOTA conference abstracts 2018. *Indian J Occup Ther.* 2018; 50: 51–64.
13. All India Occupational Therapists' Association. AIOTA conference abstracts 2019. *Indian J Occup Ther.* 2019; 51: 58–71.
14. All India Occupational Therapists' Association. AIOTA conference abstracts 2020. *Indian J Occup Ther.* 2020; 52: 61–78.
15. All India Occupational Therapists' Association. AIOTA conference abstracts 2021. *Indian J Occup Ther.* 2021; 53: 77–92.
16. Singh P, Yadav RJ. Immunisation status of children in BIMARU states. *Indian J Pediatr.* 2001; 68: 495–500. [PubMed: 11450377]
17. Kostanjsek N. Use of The International Classification of Functioning, Disability and Health (ICF) as a conceptual framework and common language for disability statistics and health information systems. *BMC Public Health.* 2011; 11 Suppl 4: S3.
18. Wade DT, Halligan PW. The biopsychosocial model of illness: A model whose time has come. *Clin Rehabil.* 2017; 31: 995–1004. [PubMed: 28730890]

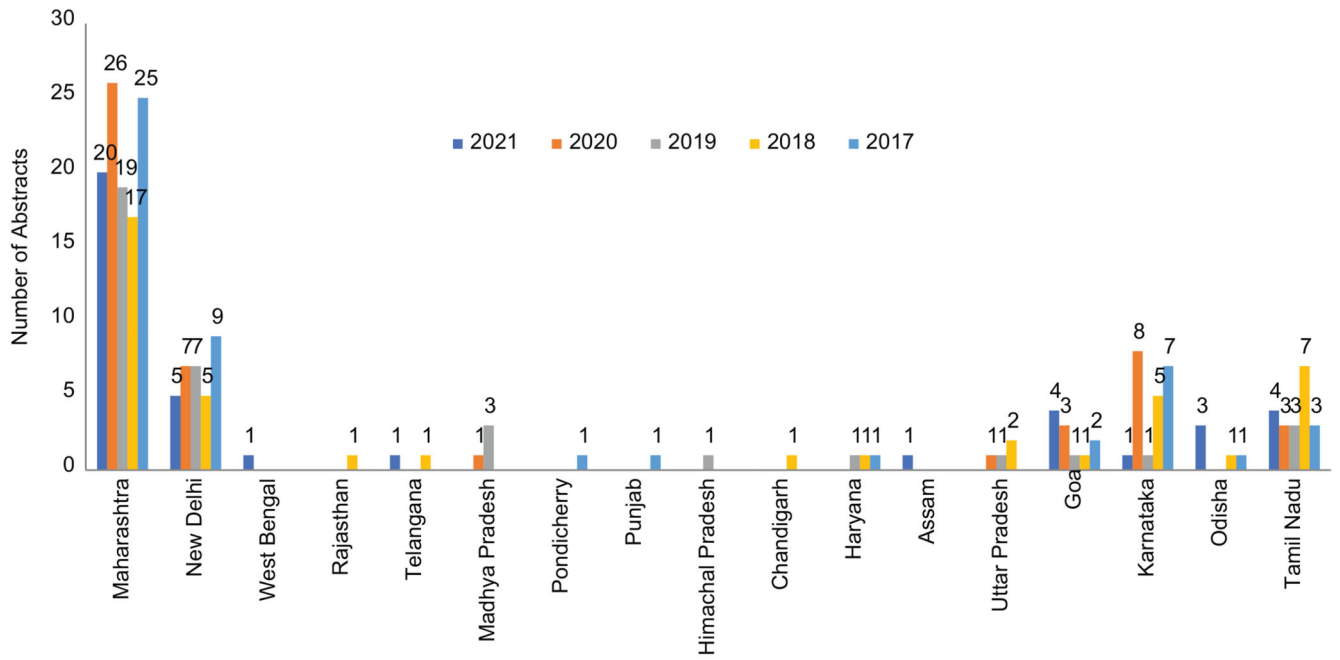
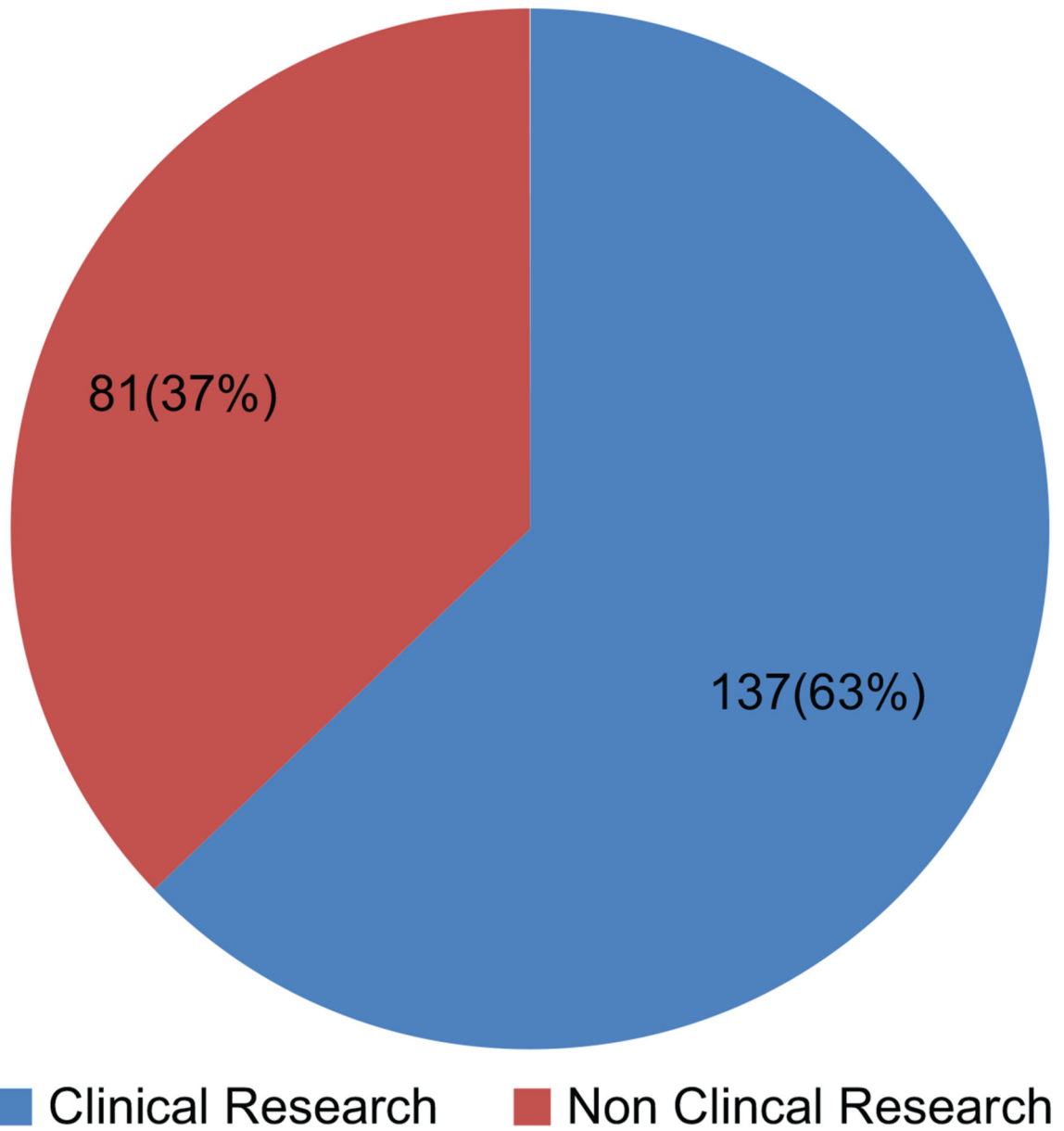
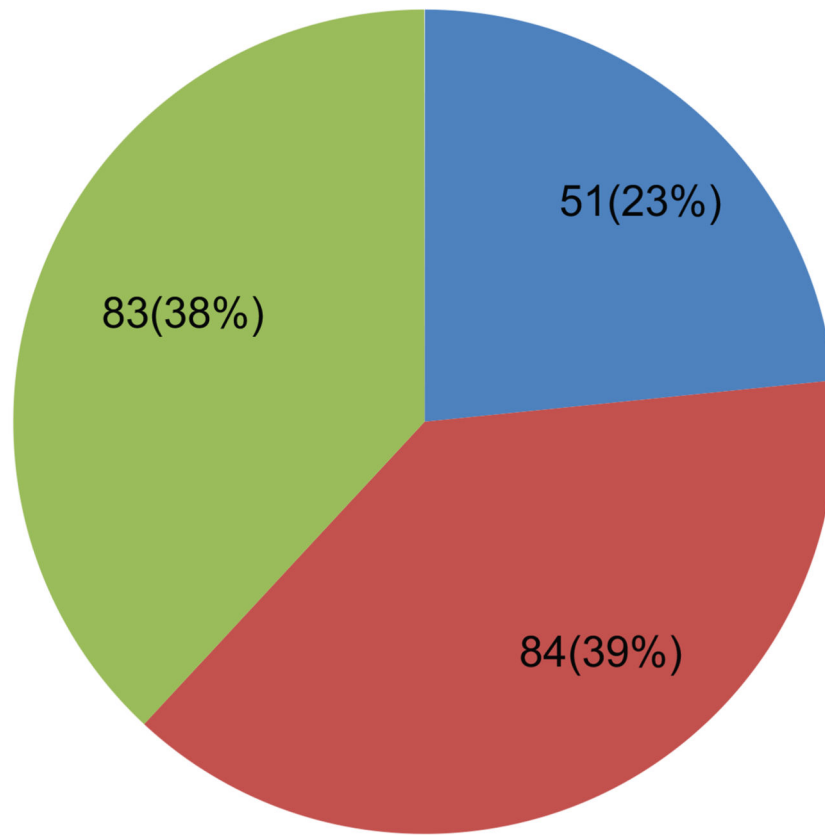


Figure 1. State-level Trends of Research Abstracts Submission
N=218



Values are number of Abstracts as n(%)

Figure 2. Focus Area of Research Abstracts
N=218



■ Non - OT Interventions ■ OT Interventions ■ Not- Applicable

Values are number of Abstracts as n(%)

Figure 3. Interventions Reported in the Research
N=218

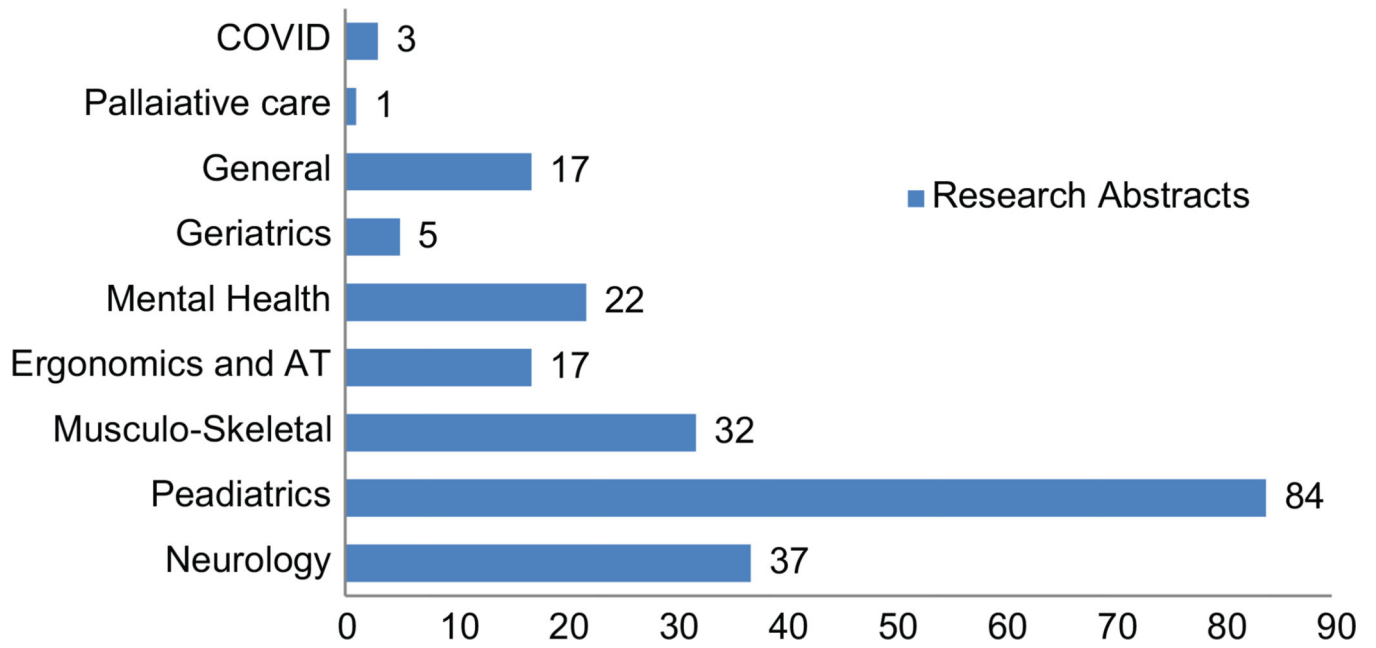
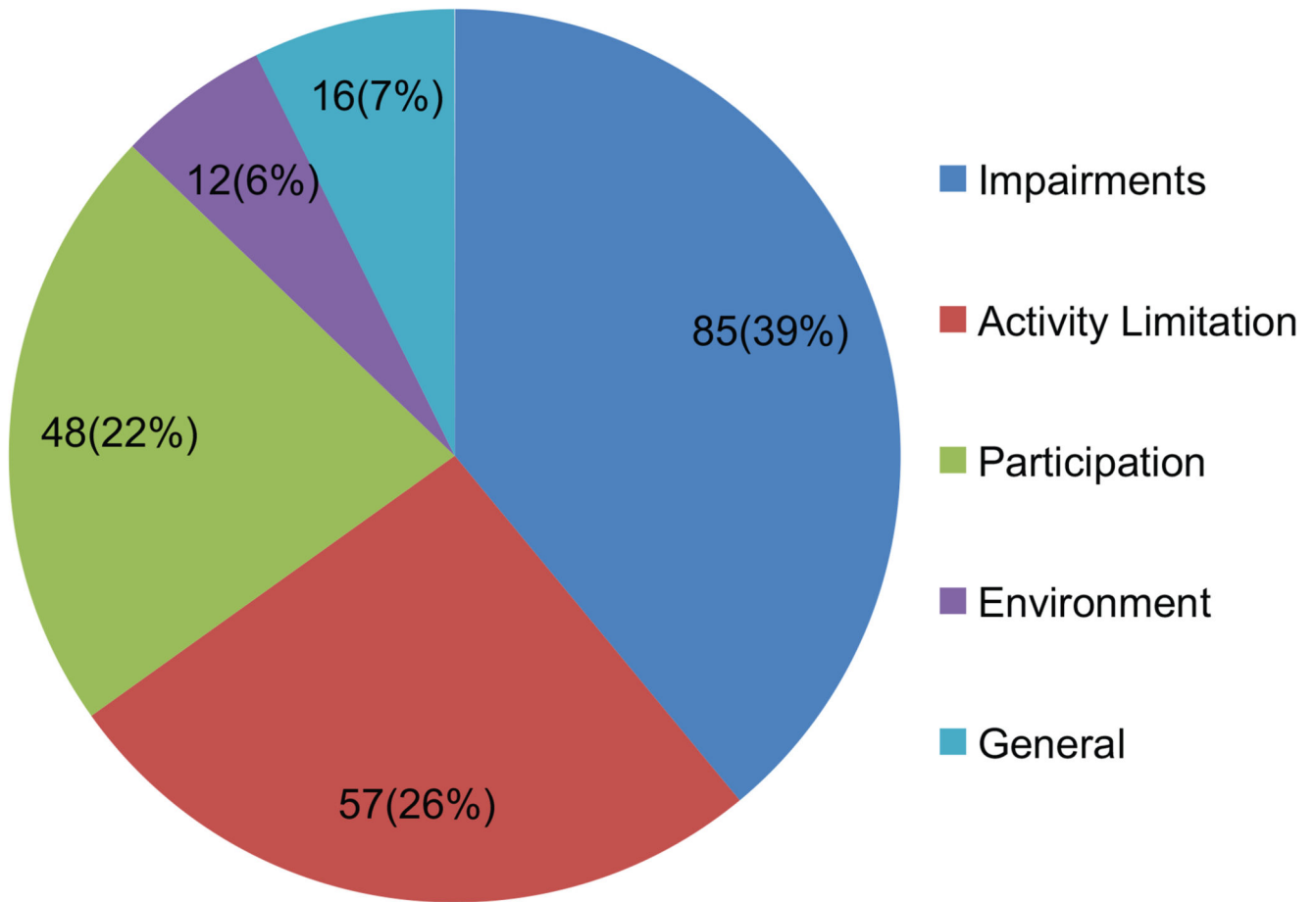


Figure 4. Subject Area of Research Abstracts
N=218



Values are number of Abstracts as n(%)

Figure 5. ICF Domains in the Research Abstracts. ICF: International Classification of Functioning, Disability, and Health
N=218