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Learning from the Literature on Community-based Yoga Intervention for Older Adults: Practical Implications for Community Health Practitioner

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Citation: Lee, JLC., Xing, JL., Ho, RTH. Learning from the literature on community-based yoga intervention for older adults.
CPCE Health Conference, January 10, 2022



World Health Organization

At least **150 to 300** minutes moderate-Intensity aerobic physical activity

or

at least **75 to 150** minutes vigorous-Intensity aerobic physical activity

or an equivalent combination throughout the week

On at least **3** days a week varied multicomponent physical activity that emphasizes functional balance and strength training at moderate or greater intensity.

For additional health benefits: On at least **2** days a week muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups.

Rationale of this study/ Research Gap

- No review has determined the scope of yoga intervention content, outcomes, feasibility and safety measures adopted in community-based yoga intervention for older adults.
- Given our interest in yoga interventions: 1) for older adults; and 2) to deliver as PA programme and service in community settings, we have chosen a scoping review methodology to identify gaps and areas of depth in the literature, and inform future research and provide practical implications to community health practitioner.

Objectives

Specific research questions are:

- 1) How are interventions tailored for the physical capacity of older adults?
- 2) What are the outcomes associated with community-based yoga intervention for older adults?
- 3) How feasible is yoga intervention among community-dwelling older adults as reflected in attrition and adherence rates?
- 4) What are the reasons for dropping out?
- 5) What are the safety screening measures adopted in community-based yoga intervention?

Protocol and registration

- A protocol was prepared in advance and published on the Open Science Framework on 26 October 2021 (<https://osf.io/na6mx/>).

Eligibility criteria

- **Types of studies:** Studies of any design will be considered for this scoping review. Publication years have no limitation; publication language was limited to English; only peer-reviewed articles were included. Books, theses or dissertations, conference papers and proceedings and other grey literature were excluded. Studies that included insufficient data for analysis were excluded. Articles that did not have a full-text version were excluded.

Eligibility criteria

- **Types of participants:** Inclusion criteria: Studies that have recruited community –dwelling older adults aged 55 or above. This includes (but is not limited to) studies that recruit community-dwelling older adults with specific characteristics like older adults with sedentary lifestyle, or older adults with OA knee symptoms.

Eligibility criteria

- **Types of intervention:** Studies will be included if participants received a yoga intervention. Yoga intervention is defined as physical bodily-based exercise with breathing awareness, relaxation, and meditation elements that the contemporary world commonly refers to. “Yoga” intervention which put the major focus on the cognitive or “mindfulness” element, without much emphasis on the physical bodily form will not be included in this review.



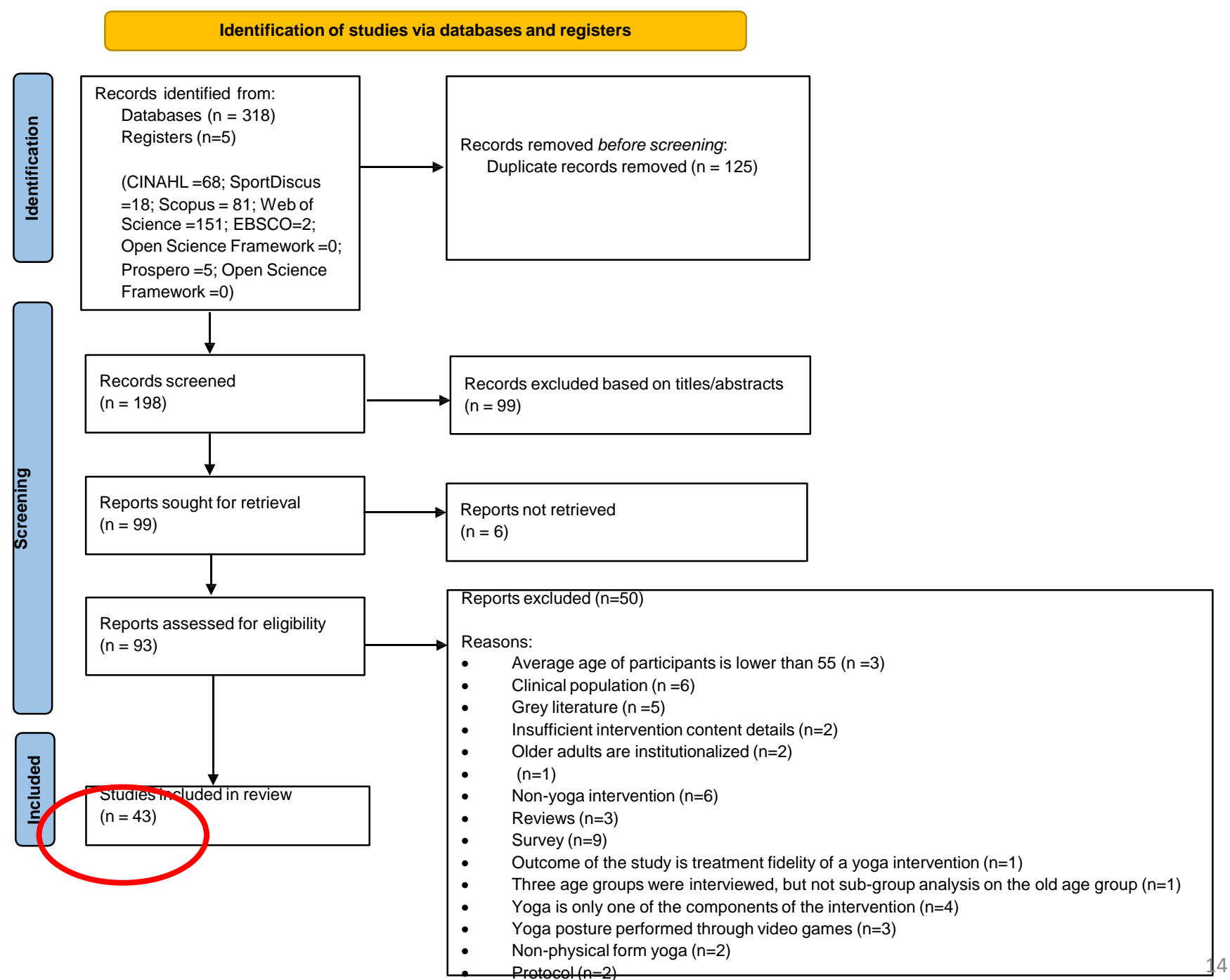
Information Sources and Search Strategy

- A systematic search was conducted in the following electronic databases: CINALHL Complete, SPORTDiscus, Scopus, EBSCO and Web of Science. Search strategies were refined for each database, and the details of the databases and search fields are provided in Supplementary information. The following filters are applied equally in these databases: 1) Publication language limited to English; 2) Only peer-reviewed articles were included. Books, theses or dissertations, conference papers and proceedings and other grey literature were excluded. The key words/terms used were “community” AND “yoga” AND “older adult*” OR “senior” OR “elder*”. The main search was conducted from October to November 2021.

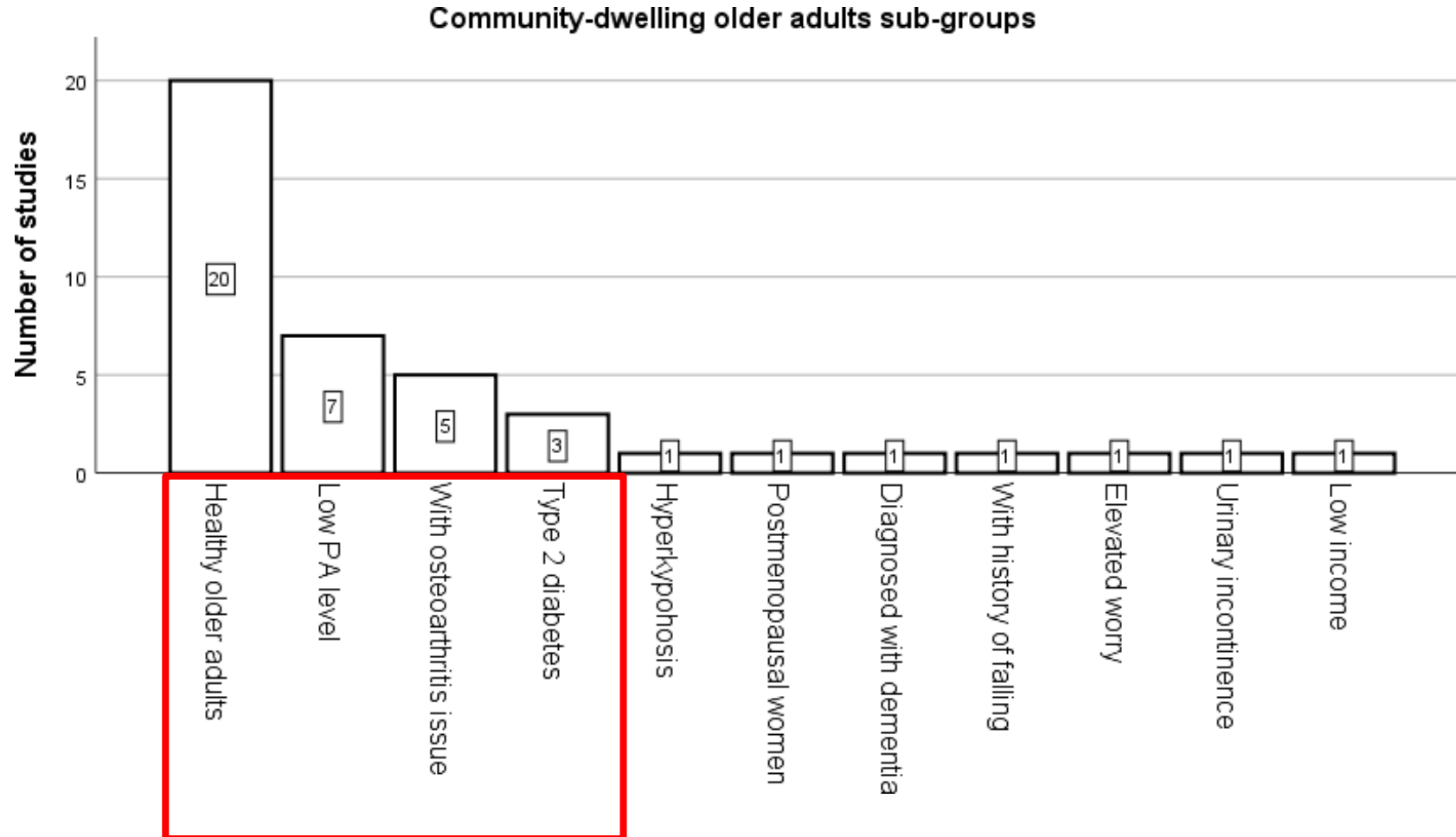
Quality assessment for the included studies

- Our systematic scoping review **did not perform** quality appraisal for included studies to **avoid dismissing the value of early stage of research** which is not yet appropriate for critical evaluation. The systematic scoping review only aim to describe what is currently known about yoga intervention across a variety of community-dwelling older adults to identify gaps and areas of depth in the literature, and inform future research activity and provide practical implications to community health practitioner.

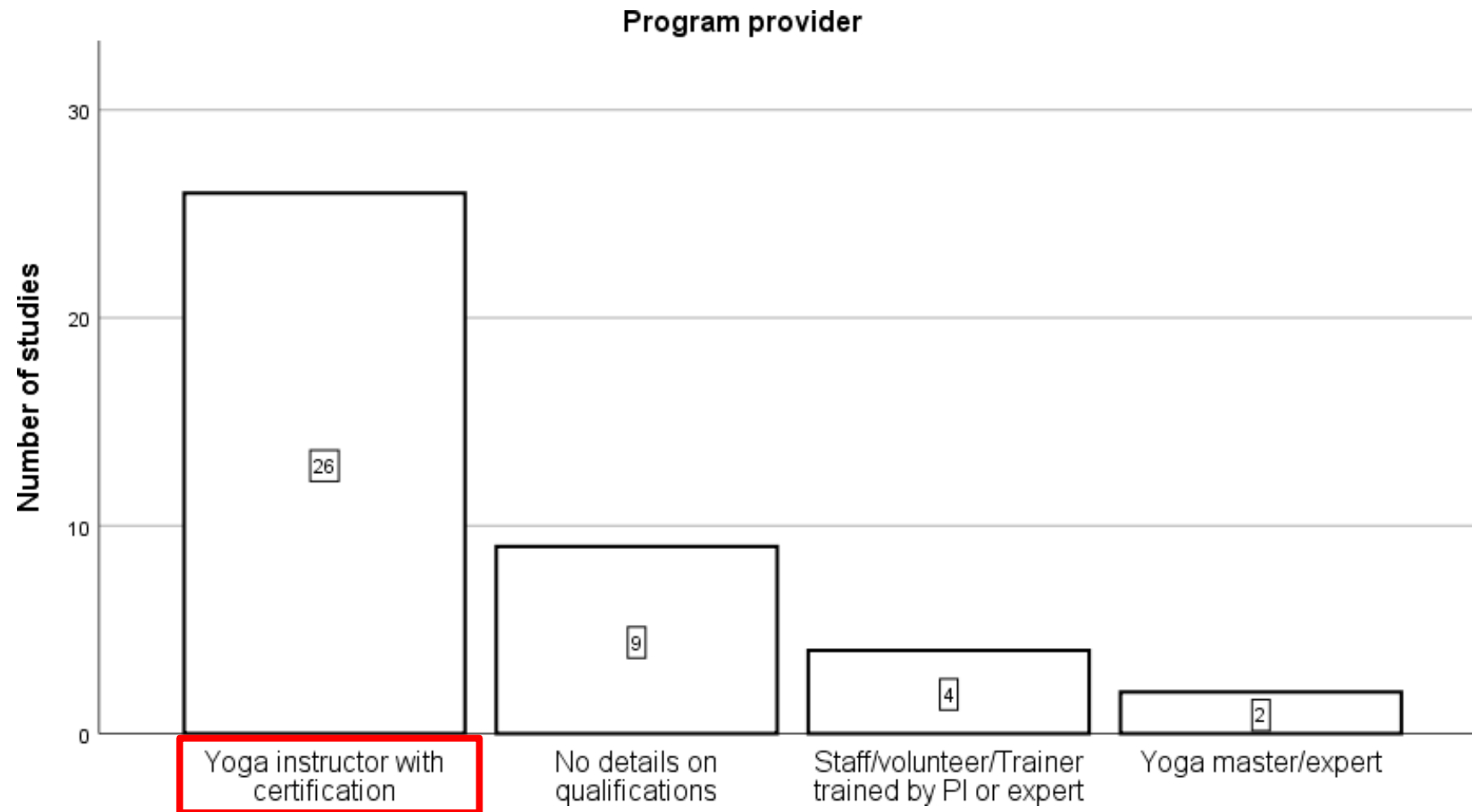
Results



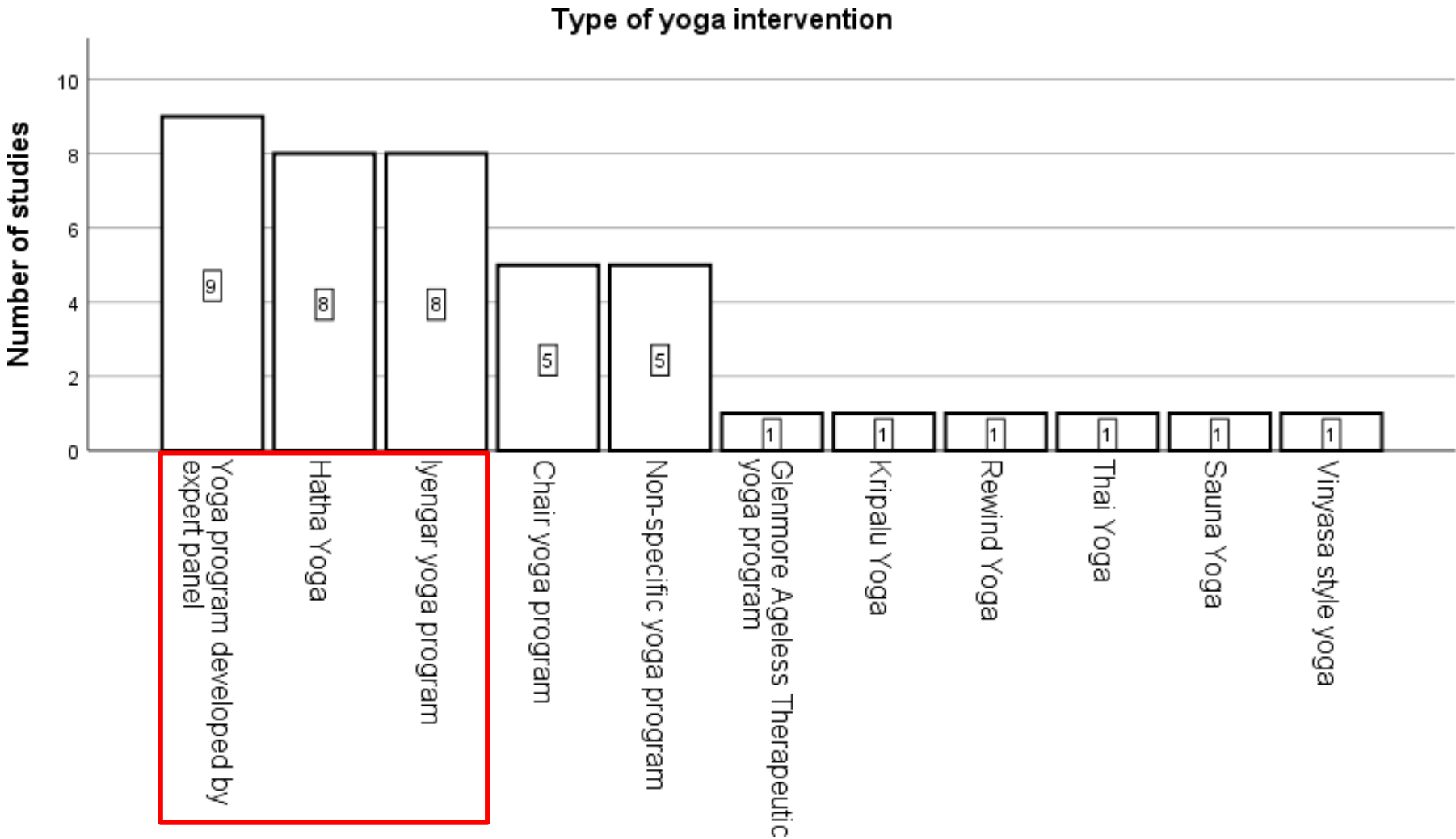
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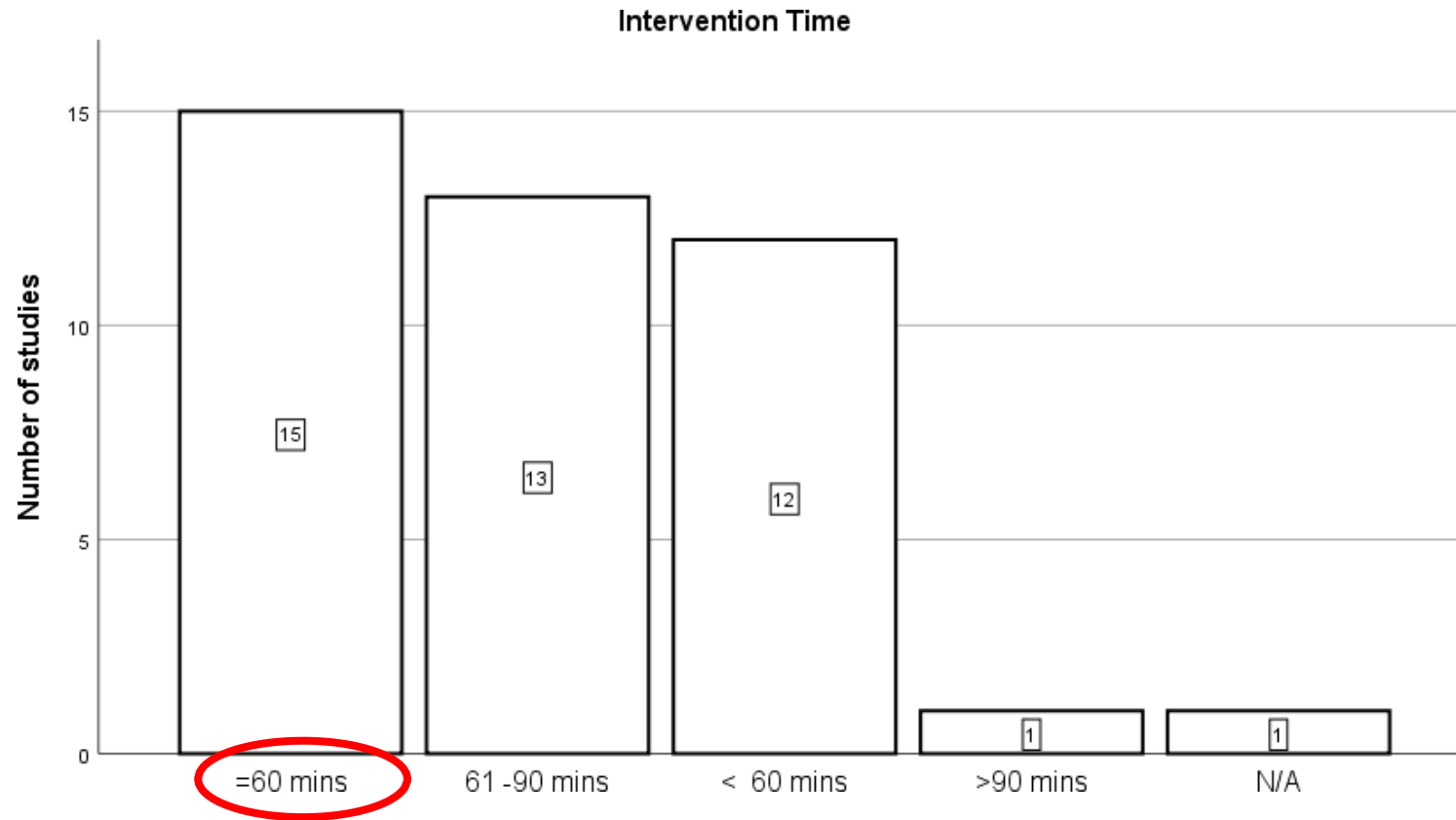
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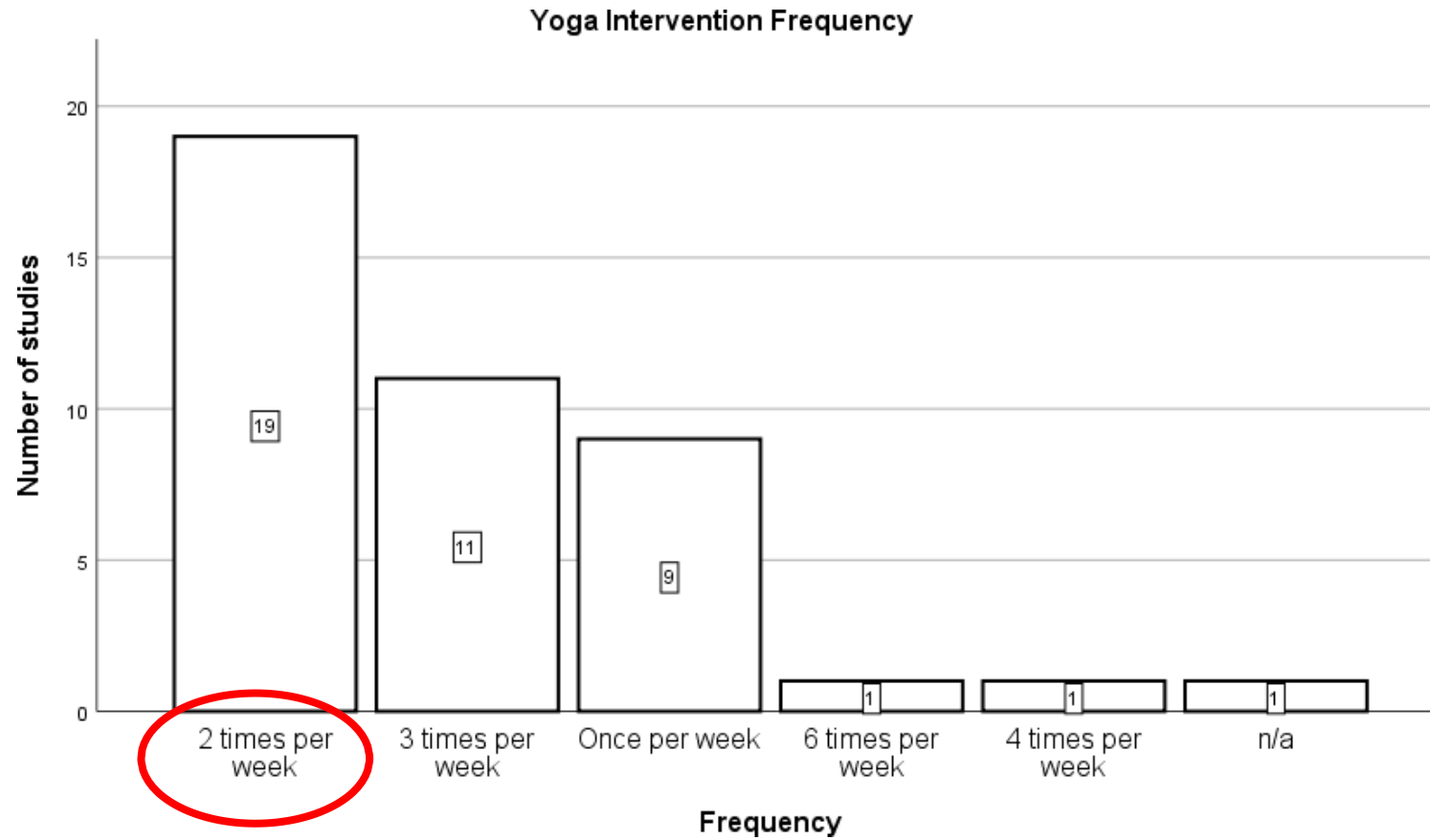
Results



Results



Results



Result, Discussion and Implication

RQ1: How are interventions tailored for the physical capacity of older adults?

- **54.5%** of the included studies tailored yoga intervention to the physical capacity of older adults
- Modifications (**by use of props***) were available for postures
- One extra instructor adjusted participants' postures and prevented any possible harm to the participants
- Participants encouraged to discuss complications or issues with instructor

* **Mats, Blocks, Straps, Blankets, Chairs, Wall**



Source: <https://www.drive.walapatra.com/2021>

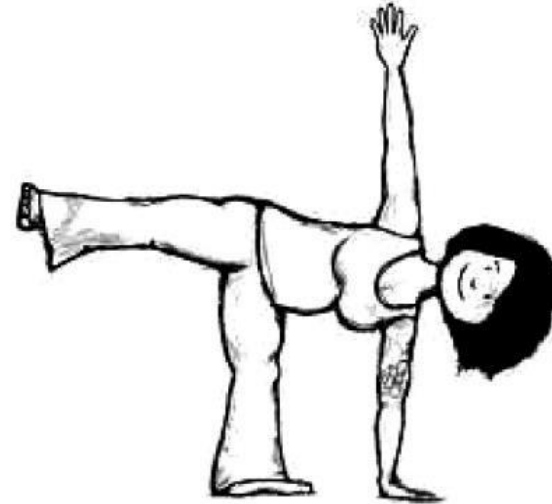


Source: <https://druyoga.com/wellbeing-hub/dru-yoga/dru-yoga-parivritta-trikonasana-the-rotated-triangle>

Result, Discussion and Implication

“Adha Chandrasana” Half Moon Pose

Modification: A block or chair is placed under the lower hand if required or the pose can be performed with back to the wall for support where needed



“Trikonasana” Triangle Pose

Modification: A block or chair is placed under the lower hand if required or the pose can be performed with back to the wall for support where needed





Source: <https://yogafh.wordpress.com/elite-props-for-iyengar-yoga/>



Source: <https://dailycaring.com/chair-yoga-for-seniors-reduce-pain-and-improve-health-video/>



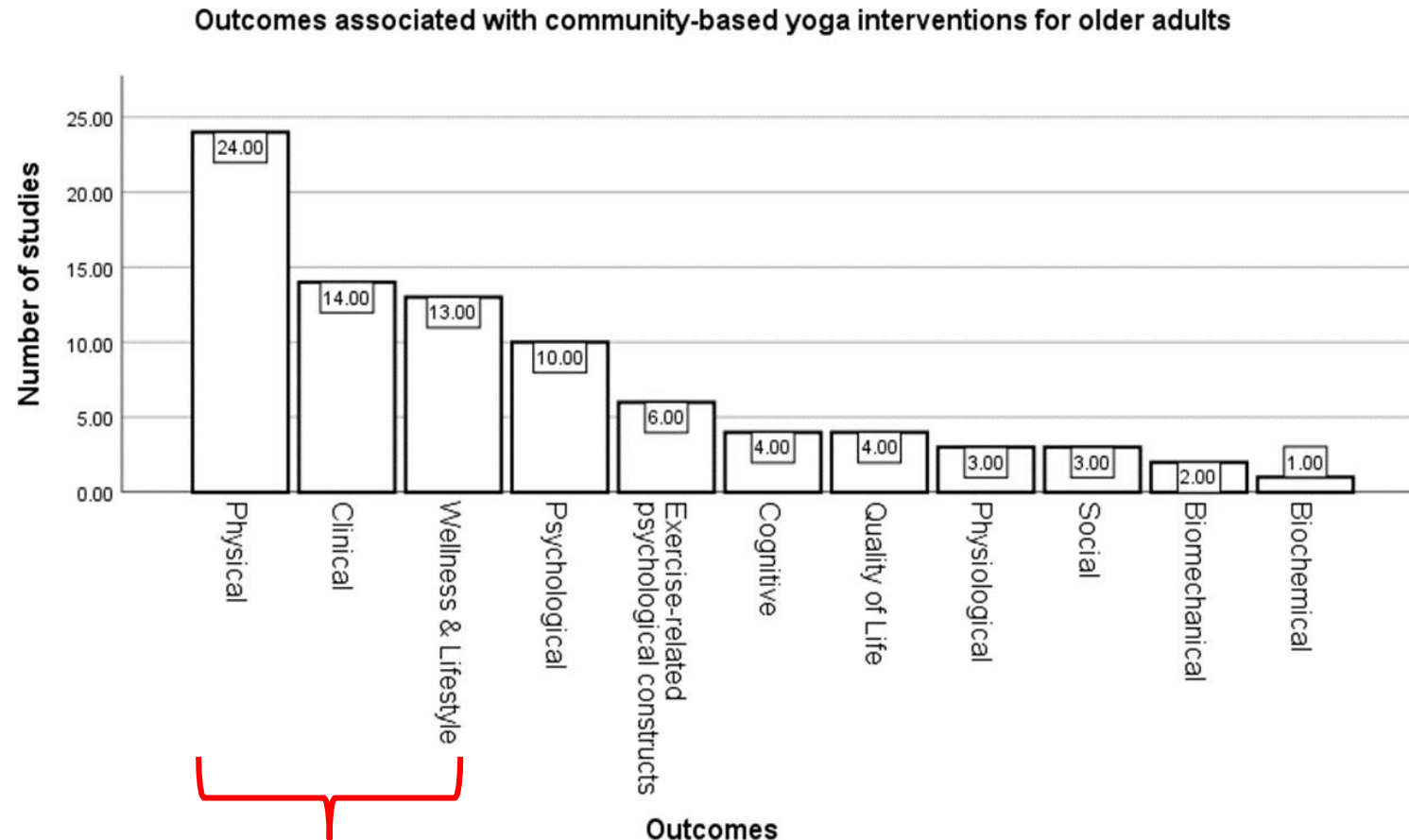
Source: <https://www.aarp.org/health/healthy-living/info-2017/restorative-yoga-after-70.html>



Source: <https://www.yogawithrosie.net/yoga-teacher-training---chair-yoga-for-seniors.html>

Result, Discussion and Implication

RQ2: What are the outcomes associated with community-based yoga intervention for older adults?



Result, Discussion and Implication

RQ3: How feasible is yoga intervention among community-dwelling older adults as reflected in attrition and adherence rates?

- Overall attrition was **6.89%** across a total of 30 intervention groups which provided the data.
- There are two major calculations on adherence rate, one is average attendance, another one is the percentage of participant adhering to 75% of all the intervention sessions. The overall median adherence to the scheduled number of intervention sessions was **83%** across 22 yoga interventions, the overall median adherence to 75% to the scheduled number of intervention was **74%** across 7 yoga interventions.

Result, Discussion and Implication

RQ4: What are the reasons for dropping out?

- Across of a total of 19 studies which have provided reasons for dropouts. The top three reasons for dropping out during intervention were **health conditions, family obligations, and time conflicts.**
- Other reasons include **relocation, no longer interested, accident, travel, unwilling to continue, death during intervention and difficulty of the intervention.**

Result, Discussion and Implication

RQ5: What are the safety screening measures adopted in community-based yoga intervention?

- 30% of the included studies adopted safety screening measures to determine eligibility of the participants in the intervention
- The followings are safety measures being used:
 - Physical Activity Readiness- Questionnaire
 - Able to get up and down from the floor, have good or corrected vision (20/40), physician approval to participate in exercise study
 - Stably execute the following safety tests: transition from standing to recumbent on the floor and rise from the floor to standing, lift both arms to shoulder level, stand with feet side by side for 30 seconds, and stand with feet hip-width apart for 60 seconds
 - Able to maintain static standing with eyes open, arms crossed, and feet bare independently for 30 seconds without a device
 - Medical certificate on current mental and physical health status provided by participants
 - Excluded if unable to walk 2 blocks on level ground or to get up from a supine to standing position unassisted
 - Able to walk 150 feet without assistive devices

Conclusions

The information gathered from the review gives **practical considerations and implications** to community health practitioners when they consider providing yoga intervention for community- dwelling older adults.

Future Research

- Meta-analysis

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