

# The Rheumatologic Joint Exam for the Resident

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## BACKGROUND

- Of the physical exams, it has been shown that there is a lack of competency in performing musculoskeletal exams among trainees, and training in evaluating joints is lacking for residents.<sup>1,2</sup>
- Additionally, residents are often less comfortable correlating physical exam findings with serologic antibodies and specific autoimmune diseases.

## OBJECTIVE

- To teach residents how to perform a hand and wrist and lower extremity exam for both inpatient and outpatient settings.
- To improve residents' comfort in performing the joint exam and identifying rheumatologic physical exam findings in patients.

## METHODS

- Participants of this study were UCLA Internal Medicine residents (PGY 1-3) attending the WLAVA morning report.
- The intervention consisted of two 45-minute teaching sessions. The first session focused on the rheumatologic hand and wrist exam. The second session focused on the rheumatologic lower extremity exam.
- Each session consisted of a didactic portion, an in-person demonstration, and a practice session.
- Pre- and post-surveys on residents' self-assessment of comfort and proficiency at performing the rheumatologic exam was collected using a 5-point Likert scale.

## REFERENCES

1. Freedman KB, Bernstein J (2002) Educational deficiencies in musculoskeletal medicine. *J Bone Joint Surg Am* 84A:604–8
2. Navarro-Zarza J, Hernández-Díaz C, Saavedra M, Alvarez-Nemegyei J, Kalish R, Canoso JJ, Villaeñor-Ovies P (2014) Preworkshop knowledge of musculoskeletal anatomy of rheumatology fellows and rheumatologists of seven North, Central and South American countries. *Arthritis Care Res* 66:270–6. doi:[10.1002/acr.22114](https://doi.org/10.1002/acr.22114)

## RESULTS

Figure 1. Residents' self-assessment of proficiency and comfort in performing the rheumatologic hand and wrist exam

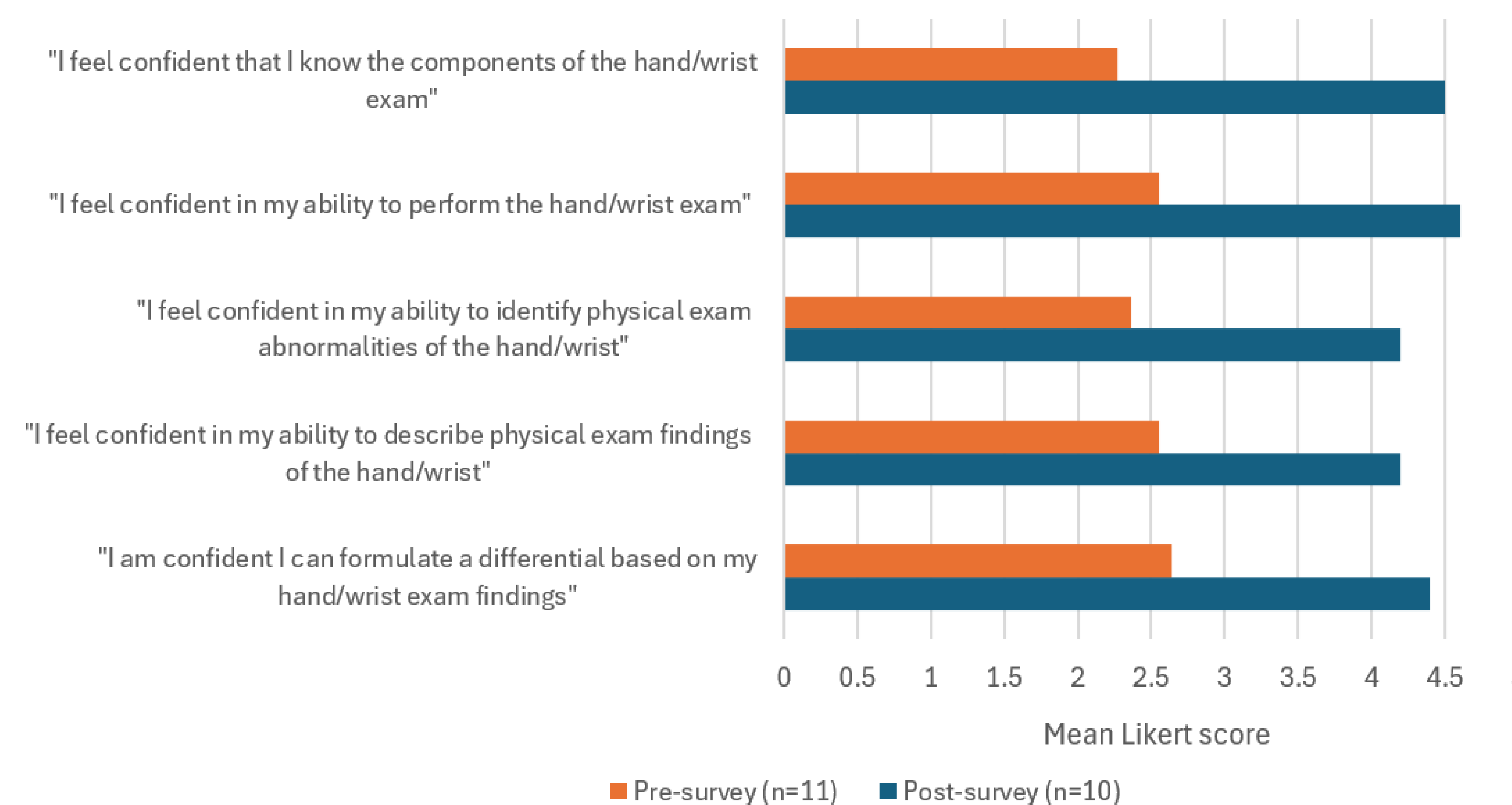
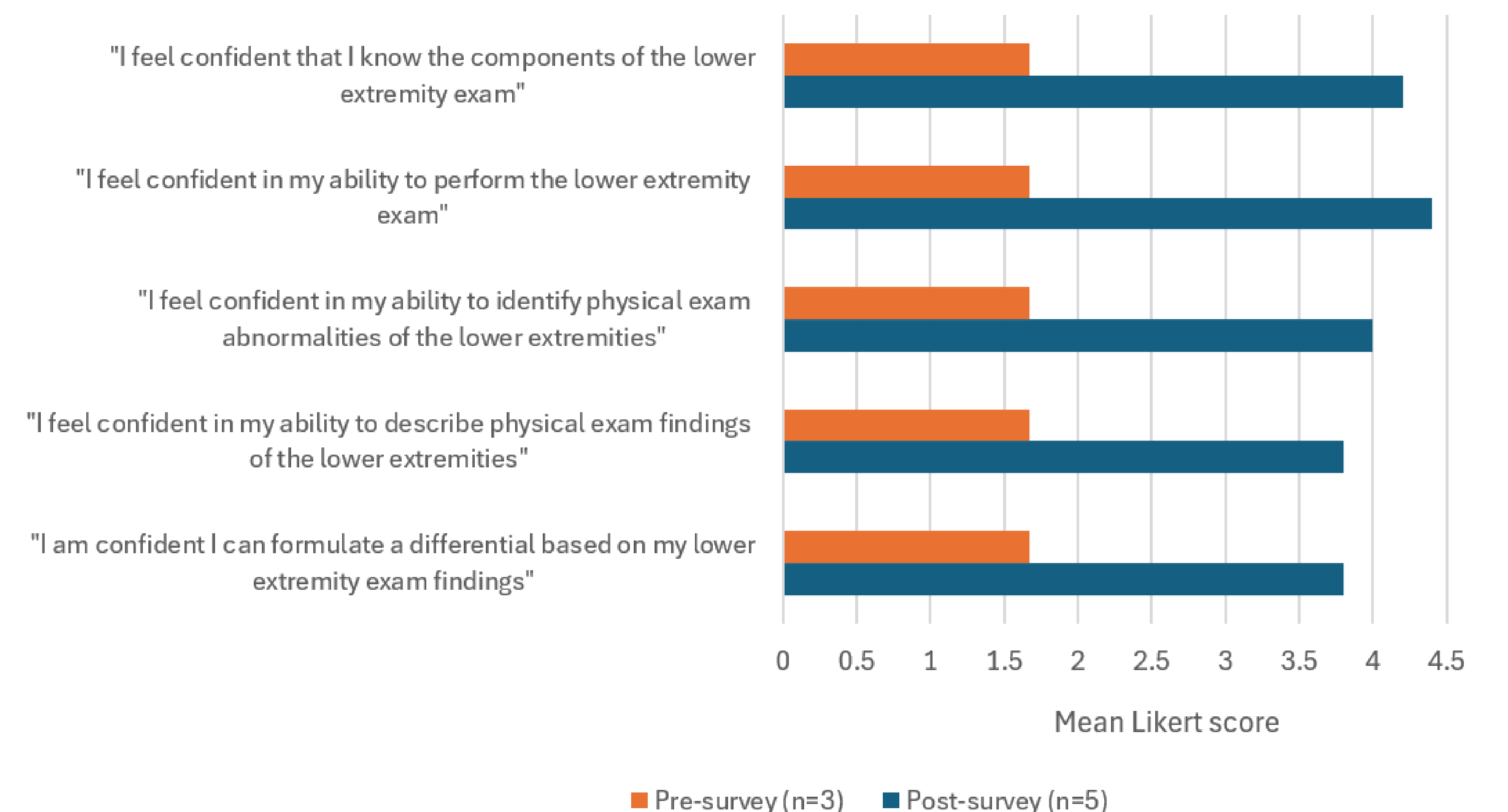


Figure 2. Residents' self-assessment of proficiency and comfort in performing the rheumatologic lower extremity exam



Resident self-assessment of proficiency was scored on a Likert scale: 1=strongly disagree, 2=somewhat disagree, 3=neither agree nor disagree, 4=somewhat agree, 5=strongly agree.

## CONCLUSIONS

- We conclude that short, focused teaching sessions can improve residents' comfort in performing rheumatologic joint exams.
- Sessions integrated with observed hands-on practice are beneficial to residents.

## FUTURE WORK

- Conduct sessions focused on other parts of the rheumatologic physical exam (e.g. skin, head and neck).
- Conduct review sessions incorporating physical exam findings with imaging and serologies.

- In our first session on the rheumatologic hand and wrist exam, 11 participants filled out the pre-survey and 10 participants filled out the post survey.
- In the second session on the rheumatologic lower extremity exam, 3 participants filled out the pre-survey and 5 participants filled out the post-survey.
- Residents' self-assessment in "knowing the components" and "ability to perform" the hand and wrist exam (**Figure 1**) and the lower extremity exam (**Figure 2**) improved after our intervention.