



ESTABLISHING NORMATIVE SWALLOWING DATA

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ABSTRACT

Dysphagic patients often do not finish meals and obtain adequate nutrition because of fatigue. Speech pathologists need normative rates of swallowing data for healthy individuals in order to write goals for dysphagia therapy. Our research looks at the difference in swallowing rates amongst males and females between the ages of 20 and 29. Following the FDA’s daily recommended portion guide, participants were asked to consume a protein, grain, and fruit. By collecting data from healthy participants, speech pathologists will have evidence-based research on how many functional swallows individuals should be able to perform to obtain adequate nutrition.

INTRODUCTION

The need for establishing normative swallowing data stemmed from research previously conducted that showed no difference in mean swallowing frequency between males and females. However, there was no control for portion size; rather, swallowing frequency counts were obtained from individual meals.

RESEARCH QUESTION

When provided a controlled portion of protein, grain, and fruit, how does the consistency of the food affect swallow rates in healthy adults?

METHODOLOGY

Each participant, aged 20-29 years, was presented with 4 ounces of grilled chicken tenders, 1 ounce of club crackers, and 2.5 ounces of sliced apples.

Participants were presented each food item in a random order.

Participants tallied each swallow on a data sheet for each food item.

Liquid bolus (water) swallows were tallied separately from solid bolus swallows.

Participant Information										
Sex	F	F	F	F	F	M	M	M	M	M
Age	24	25	23	22	23	22	22	21	21	22
Height	5’1”	5’0”	5’3”	5’4”	5’3”	5’11’	5’11”	6’1”	5’11”	5’11”
Activity level	walk	Walk	Mod 3x/week	walk	walk	walk	walk	walk	Walk	walk

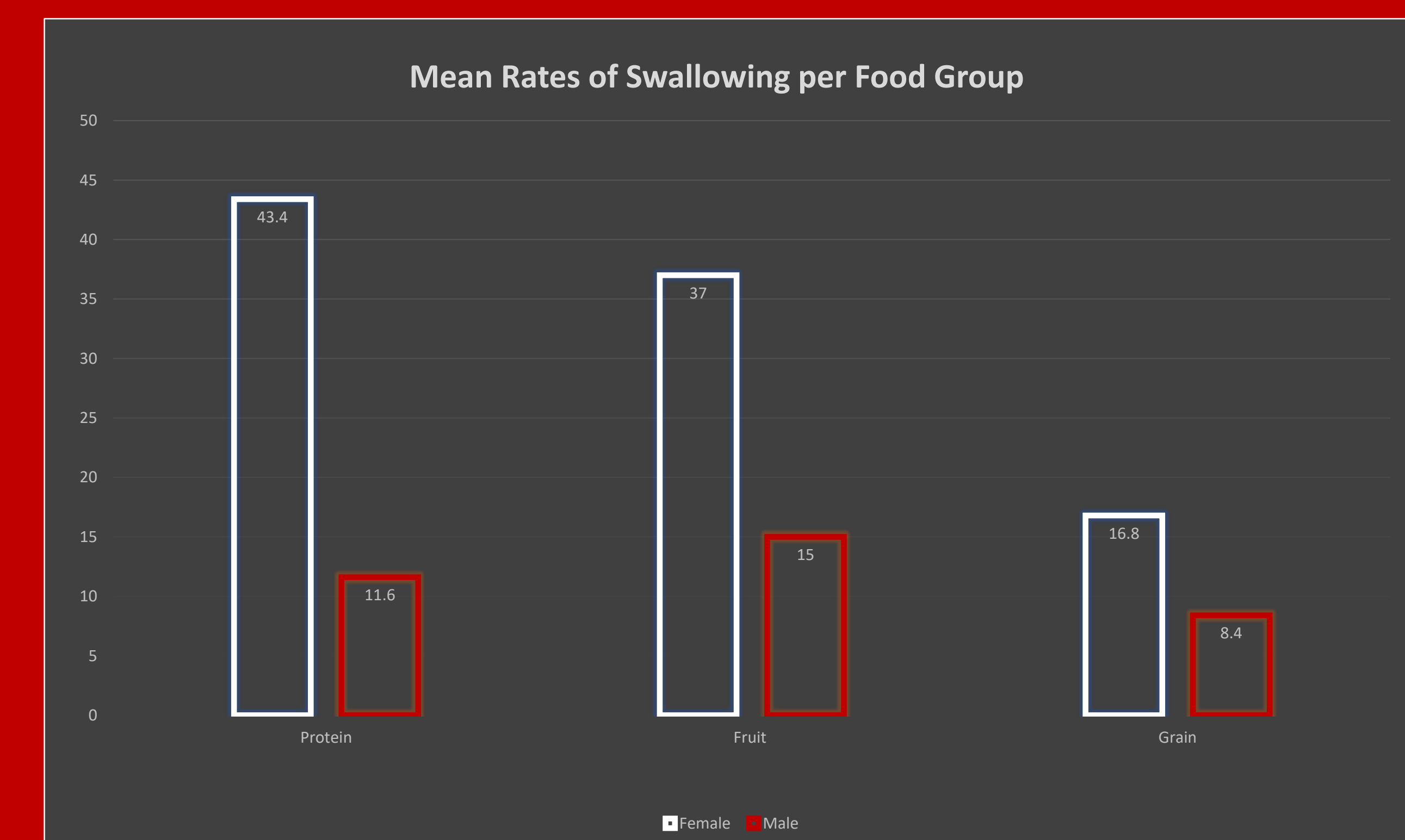
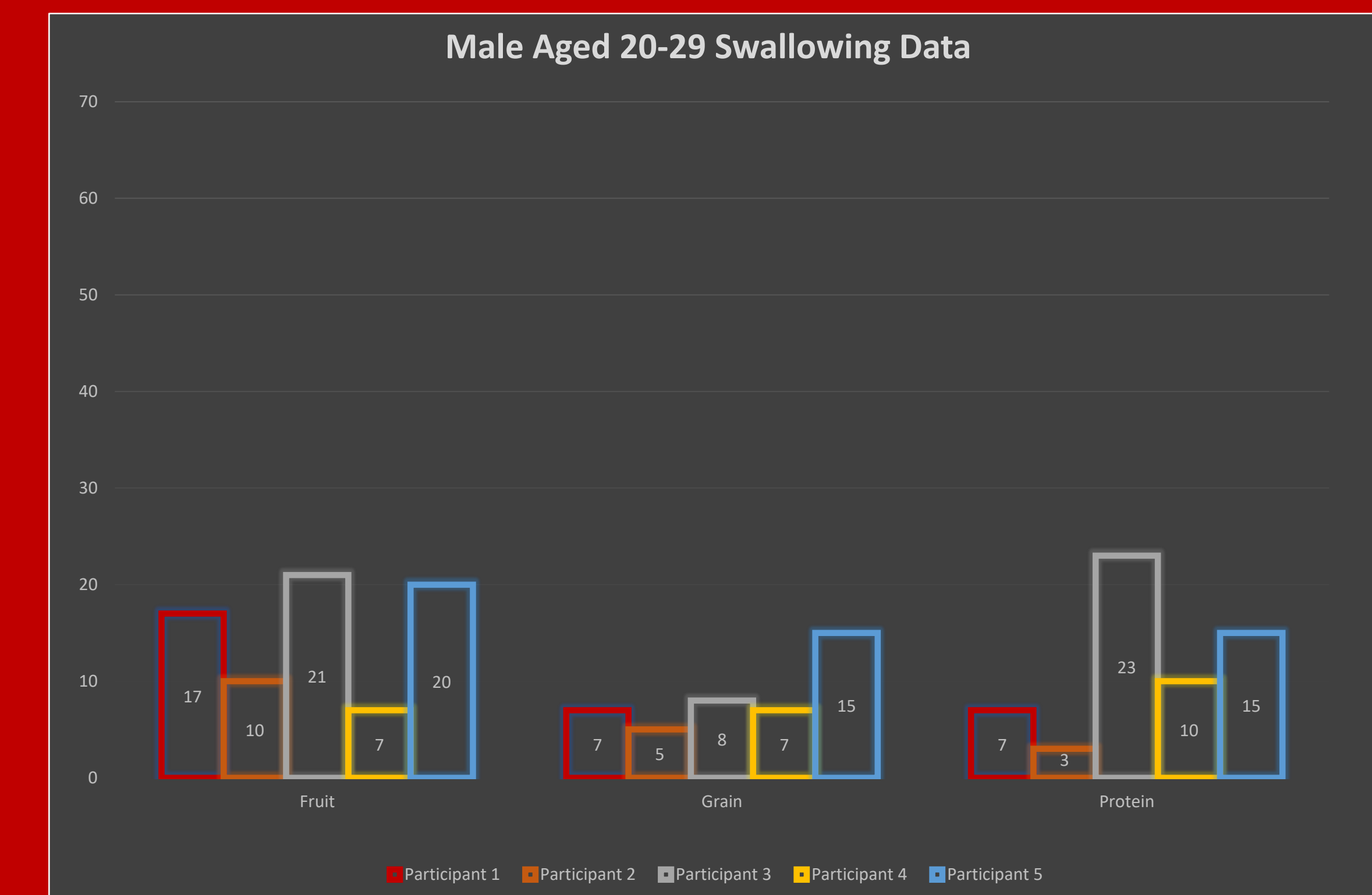
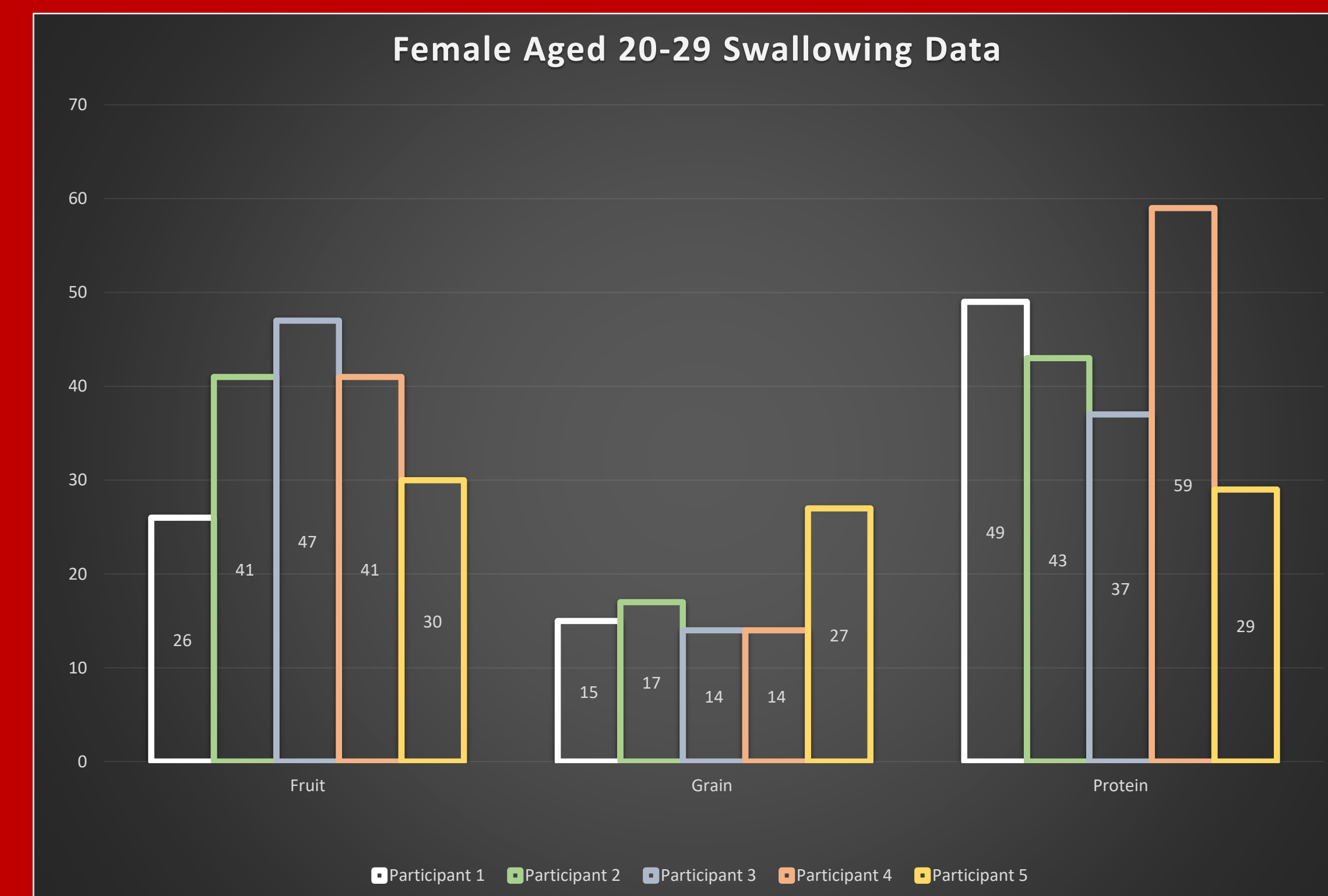
CONCLUSION

While these data do not determine the parameters of the difference in swallowing frequency, we can draw the conclusion that females tend to swallow more often than males.

As additional data are collected in the future, we will begin to gain a better understanding of the differences and similarities in swallowing rates for the different age groups of males and females.

RESULTS

In comparison to previous research, we were able to determine that there is a difference in swallowing rates between males and females in the 20-29-year age range. The rate of swallowing is 2-3x higher for females than for males when consuming the same portion of food. While these data do not determine the parameters of the difference in swallow, we can draw the conclusion that females tend to swallow more often than males when consuming the same portion of food. The swallowing frequency is 2-3x higher for females compared to males.



References

Speech Language Pathologist. (2020). Retrieved from ASHA: www.asha.org/Students/Speech-Language-Pathologists/