



## INTRODUCTION

Cognitive decline has a relation with several variables. Understanding of early decline in cognitive function and the associated predisposing risk factors is becoming important.<sup>1</sup> A vast number of research papers are emerging which are investigating the association between cognitive impairment and oral health worldwide.<sup>2,3</sup> The rationale behind it, is relating teeth loss and impaired masticatory ability to neuroanatomical and chemical changes that occur in the brain. Periodontal disease and periodontal inflammatory blood markers have also been investigated in relation to cognitive decline.<sup>4</sup> Additionally, studies have linked dental status to nutritional intake and have established a relationship between low dietary intake and an increased risk for cognitive decline.<sup>5</sup>



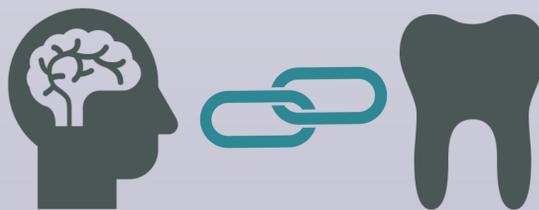
## OBJECTIVES

- Assess the relationship between the number of teeth, periodontal state and cognitive ability in multicenter across city of Riyadh.
- Enhance the public awareness about conservative oral health care from early age.



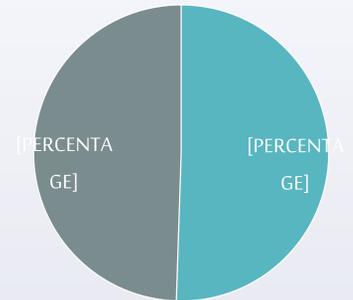
## MATERIAL AND METHODS

Samples were collected through visiting community-residing, home visit, and community day center. A cross sectional survey targeting Saudi geriatric patients in Riyadh City, Saudi Arabia. These multicenter participants aged 57-85 using multistage area probability design. Sociodemographic data was collected. Oral examination was carried out, including number of teeth and Community period-index (CPI). Montreal Cognitive Assessment (MoCA) was used for grading the cognitive state and estimate the severity and progression of cognitive impairment, for all the participants.

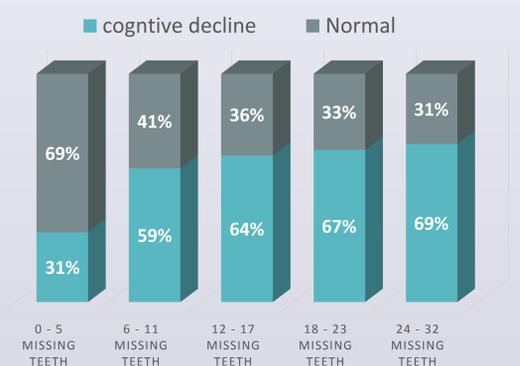


## RESULTS

105 Patient were examined, 6 patients were excluded due to positive history of head trauma. A 47(49%) of participants were reported a cognitive decline. A positive trend was detected for low MOCA score status in relation to the increases number of missing teeth, CPI and age of participants, at correlation coefficient (-0.50, -0,38, - 0.37) and P value <0.001, respectively. Males were more affected than female at ratio 2.2:1.



Participants with cognitive decline among study population



Presence of cognitive decline in different extracted teeth groups.

(P <0.046, Chi square test = 9.7).



## CONCLUSION

We concluded from our preliminary data there is significant relationships between the number of remaining teeth, CPI, and cognitive function. This would encourage further regional and national multicenter studies on bigger scale. Thus, enhance the public awareness about conservative oral health care from early age.

## REFERENCES



## ACKNOWLEDGMENT

“The authors extend their appreciation to the Deanship of Scientific Research at King Saud University for funding this work through the Undergraduate Research Support Program, Project no. (URSP -3 -17 - 24 ).”