





Relationship between diet and oral health in Irish nursing homes: An examination into staff and patient's perceptions

Authors

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Resident questionnaire: Introduction

Section A – background and demographic

Section B – modified version of validated OHIP

or over. (1)

Ireland's population is ageing. (2) Malnutrition is very common amongst the elderly population. This can lead to complications e.g.; lengthier hospital stays and increased mortality

Elderly population is defined as anyone aged 65

rates (3)(4)Oral health (OH) is a contributing factor to malnutrition. (5)(6)

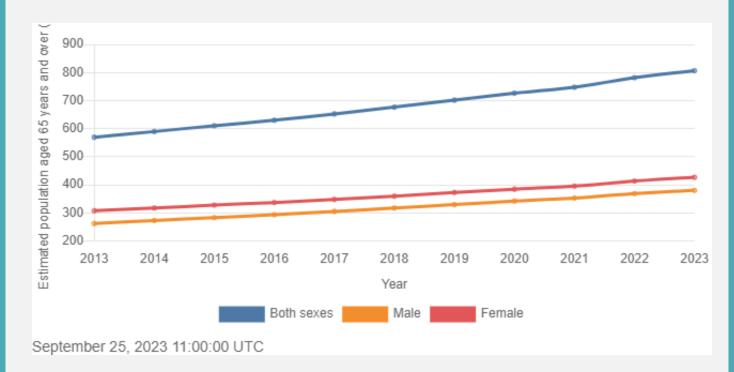


Figure 1: Estimated population aged ≥65 by sex and year (7)

Methods and Materials

- A cross-sectional study design was used in this study.
- The two populations examined within Irish nursing homes were nursing home (NH) residents and NH staff (n=60 participants).

NHs in Galway and Dublin were chosen from the 'Nursing Home Ireland' website



A call was made to the selected NHs



An email was sent to the Director of Nursing with further information



If the NH was interested in participation a suitable time/date to visit was arranged



On the day of each visit eligible participants received their relevant questionnaire, information sheet and consent form

Figure 2: Data collection process

Staff questionnaire: Exploration of overall OH knowledge and activities to maintain good OH in their residents.

Results

Residents

information.

questionnaire. (8)

- The study found a significant correlation between diet satisfaction and resident's number of teeth (p =0.013). Residents with fewer teeth reported a decrease in diet satisfaction.
- Although no statistical difference was found between diet satisfaction and denture presence (p =0.160) there are trends to show that their presence may improve diet satisfaction.

Staff

- Almost half of the NH staff participants stated that they had received no training regarding OH/hygiene for their residents.
- Only 3 out of the 27 staff participants rated their OH knowledge as 'Excellent'.

Table 1:Staff's perceived knowledge on the relationship between diet and OH alongside the corresponding percentages

Knowledge on relationship between diet and OH	Percentage of staff
Excellent	11.1%
Very good	44.4%
Good	44.4%
Poor	0%
Very poor	0%
Poor	0%

Conclusions

Residents

OLLSCOIL TEICNEOLAÍOCHTA

There are similar findings in existing literature regarding tooth quantity and diet satisfaction. (9)(10)

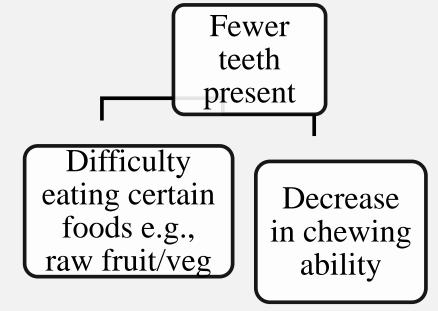


Figure 3: Flow chart of how having fewer teeth can possibly negatively impact nutritional status/diet

fitting dentures

may cause

Denture presence has been noted in previous literature to improve diet satisfaction. (11)(12)Important: ill-

Staff

- Overall, there appears to be very little existing literature surrounding nursing home staff and oral health.
- There is conflicting evidence regarding OH training in NH staff members. (13)(14)(15)
- It has been noted that lack of OH knowledge can be seen as a barrier to providing sufficient oral care to NH residents. One study noted that OH knowledge in healthcare staff is 'deficient' and 'lacking'. (13)



References

- Orimo, H., Ito, H., Suzuki, T., Araki, A., Hosoi, T. and Sawabe, M. (2006) 'Reviewing the definition of "elderly", Geriatrics & gerontology international, 6(3), pp. 149-158.
- Department of Finance (2021) Minister Donohoe publishes Population Ageing and the Public Finances in Ireland Report. gov.ie.
- National Health Service (2023) *Malnutrition Causes*. Available at: https://www.nhs.uk/conditions/malnutrition/causes/ (Accessed: 05/03/2023.
- Rémond, D., Shahar, D.R., Gille, D., Pinto, P., Kachal, J., Peyron, M.-A., Dos Santos, C.N., Walther, B., Bordoni, A. and Dupont, D. (2015) 'Understanding the gastrointestinal tract of the elderly to develop dietary solutions that prevent malnutrition', Oncotarget, 6(16), p. 13858
- Azzolino, D., Passarelli, P.C., De Angelis, P., Piccirillo, G.B., D'addona, A. and Cesari, M. (2019) 'Poor oral health as a determinant of malnutrition and sarcopenia', Nutrients, 11(12), p. 2898.
- De Souza Barbosa, T., Mialhe, F.L., De Castilho, A.R.F. and Gavião, M.B.D. (2010) 'Quality of life and oral health in children and adolescents: conceptual and methodological aspects', *Physis*, 20(1), p. 283.
- Author (2023) 'Population aged 65+ CSO Central Statistics Office', *Journal*, Volume(Issue), p.^pp. Pages, illus.
- Paredes-Rodríguez, V.M., Torrijos-Gómez, G., González-Serrano, J., López-Pintor-Muñoz, R.M., López-Bermejo, M. and Hernández-Vallejo, G. (2016) 'Quality of life and oral health in elderly', J Clin Exp Dent, 8(5), pp. e590-e596
 - Brennan, D.S., Spencer, A.J. and Roberts-Thomson, K.F. (2008) 'Tooth loss, chewing ability and quality of life', *Qual Life Res*, 17(2), pp. 227-35.
- Zhang, Q., Niesten, D., Bronkhorst, E.M., Witter, D.J. and Creugers, N.H.J. (2020) 'Food avoidance is associated with reduced dentitions and edentulousness', Clin Oral Investig, 24(2), pp. 849-856.
- Moynihan, P. and Varghese, R. (2022) 'Impact of wearing dentures on dietary intake, nutritional status, and eating: a systematic review', JDR Clinical & Translational Research, 7(4), pp. 334-351.
- Prakash, N., Kalavathy, N., Sridevi, J. and Premnath, K. (2012) 'Nutritional status assessment in complete denture wearers', *Gerodontology*, 29(3), pp. 224-30.
- Hoben, M., Clarke, A., Huynh, K.T., Kobagi, N., Kent, A., Hu, H., Pereira, R.A.C., Xiong, T., Yu, K. and Xiang, H. (2017) 'Barriers and facilitators in providing oral care to nursing home residents, from the perspective of care aides: A systematic review and meta-analysis', *International journal of nursing studies*, 73pp. 34-51.

Lewis, C., Zwetchkenbaum, S.R., Baier, R.R., Harris, D. and Gardner, R.L. (2020) 'Dental and Oral Health Care in Nursing Homes: Results from Two Multi-Stakeholder Surveys', R I Med J (2013), 103(8),

pp. 62-68. 15. Sifuentes, A.M.F. and Lapane, K.L. (2020) 'Oral Health in Nursing Homes: What we know and what we need to know', *The journal of nursing home research sciences*, 6p. 1.