

Professional profile

I am currently a Lecturer in Health Sciences at the University of East Anglia, where I teach across the Faculty of Medicine and Health Sciences (FMH) at undergraduate and postgraduate levels. My research interests are hydration and nutritional care for older people living in residential and nursing care, and I have published widely on this work (see attached) since completing my PhD in in this area. My current work also includes participatory approaches to research in care homes and supporting care homes during the pandemic. I qualified as a general nurse in 1983, working in respiratory care before moving into Midwifery. From 1991-2012 I worked as a research nurse and study manager for the Norfolk Arthritis Register, a longitudinal observational study of inflammatory polyarthritis (IP) aiming to establish the cause, incidence and outcome.

Career summary

Oct 2016 – Present **University of East Anglia, Norfolk.**
Lecturer in Health Sciences

Outline

As Lecturer in Health Sciences at the University of East Anglia, I teach across the Faculty of Medicine and Health Sciences at undergraduate and postgraduate levels. My teaching reflects my research topic and methodological interests.

Key responsibilities

- Lecturer in Health Sciences at the University of East Anglia, teaching across FMH at undergraduate and postgraduate levels.
- Teaching reflects my research topic area (hydration and nutritional care for older people living in residential and nursing care) as well as research methods (systematic reviews, quantitative, qualitative and mixed methods).
- Teaching role includes associated activities such as marking.
- Primary/ secondary supervisor for 4 PhD students.
- Dissertation Supervisor for a number of MSc and BSc students.
- Module Organiser: MClinEd Dissertation Module; Professional Doctorate in Health & Social Care.
- Personal Advisor for undergraduate and postgraduate students.
- Link Lecturer for acute and community placement areas for student nurses.
- Evidence Based Learning (EBL) Tutor on pre-registration nursing programmes (undergraduate and post-graduate levels).
- Research role includes developing grant proposals, running research projects and disseminating findings.

Feb 2012 – Oct 2016 **University of East Anglia, Norfolk.**
Research Associate and Senior Research Associate Posts

Outline

Researcher involved in the planning and delivery of funded projects.

Key responsibilities

- Making Drinking Fun. Aiming to create pro-drinking environments and make drinking fun for residents living in care-homes by working with and involving the Activities Co-ordinators, care staff, residents, families and Occupational Therapy students.
- Systematic reviewer on nutritional-related systematic reviews.

- Dehydration Recognition in our Elders (DRIE) study. The work for this study also contributed to my PhD (*Understanding, recognising and preventing dehydration in older residents living in care homes: a mixed methods study*). The DRIE study investigated the diagnostic accuracy of clinical signs and symptoms of dehydration when compared to the gold standard of serum osmolality, in older care home residents. Additional PhD work included a systematic review (investigating interventions and associations aiming to improve drinking and/or hydration in older care home residents) and a qualitative study involving residents, families and care staff in focus groups to discuss issues around drinking

Sep 1991 – Feb 2012 University of Manchester
Clinical Manager and Research Nurse, Norfolk Arthritis Register (NOAR)

Outline

NOAR is a large epidemiological study investigating cause, incidence and outcome of IP. As manager and research nurse, I was involved in recruiting, interviewing and assessing participants, maintaining long-term involvement, developing new studies, seeking ethical approvals, analysing data and reporting findings.

Sep 1986 – Aug 1991 Norfolk & Norwich Hospital, Norwich, Norfolk.
Staff Midwife

Outline

Care of mothers and babies during pregnancy and post-partum period.

Teaching activity and expertise

- Lecturer in Health Sciences at the University of East Anglia, teaching across FMH at undergraduate and postgraduate levels.
- Teaching reflects my research topic area (hydration and nutritional care for older people living in residential and nursing care) as well as research methods (systematic reviews, quantitative, qualitative and mixed methods).
- Teaching role includes associated activities such as marking.
- Primary/ secondary supervisor for 4 PhD students.
- Dissertation Supervisor for a number of MSc and BSc students.
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- Personal Advisor for undergraduate and postgraduate students.
- Link Lecturer for acute and community placement areas for student nurses.
- Evidence Based Learning (EBL) Tutor on pre-registration nursing programmes (undergraduate and post-graduate levels).

Administrative experiences

- Principal Investigator, research projects.
- Module Organiser: MClinEd Dissertation Module; Professional Doctorate in Health & Social Care.
- Clinical Manager, NOAR. Responsibility for the nursing and support staff with respect to recruitment and training, staff development, personnel issues, clinical supervision, allocation of work, risk assessment and health and safety.

Professional Education

➤ Fellow of the Higher Education Academy	2019	Higher Education Academy
➤ Postgraduate Certificate in Higher Education Practice	2018	UEA
➤ PhD	2016	University of East Anglia
➤ MSc in Health Sciences	2002	University of East Anglia
➤ BSc(Hons) Nursing Studies (2:1)	1983	University of Surrey

Qualifications

➤ Registered General Nurse	1983	University of Surrey
➤ Registered Midwife (registration lapsed)1986	1986	St Georges Hospital, London

2020

Towers AM, Killett A, Handley M, Almack K, Backhouse T, Bunn D, Bunn F, Dickinson A, Mathie E, Mayrhofer A, Mikelyte R, Goodman C. Producing 'Top Tips' for Care Home Staff During the COVID-19 Pandemic in England: Rapid Reviews Inform Evidence-Based Practice but Reveal Major Gaps. *Journal of Long-Term Care*. 2020. pp151-166. DOI: <https://doi.org/10.31389/jltc.43>.

Hooper L, Abdelhamid AS, Jimoh OF, Bunn D, Skeaff CMurray. Effects of total fat intake on body fatness in adults. *Cochrane Database of Systematic Reviews* 2020, Issue 6. Art. No.: CD013636. DOI: [10.1002/14651858.CD013636](https://doi.org/10.1002/14651858.CD013636).

Janjuha R, Bunn D, et al. Effects of Dietary or Supplementary Micronutrients on Sex Hormones and IGF-1 in Middle and Older Age: A Systematic Review and Meta-Analysis. *Nutrients*. 2020, 12, 1457; doi:10.3390/nu12051457

2019

Bunn D & Hooper L. Signs and symptoms of low-intake dehydration do not work in older care home residents - DRIE diagnostic accuracy study. *Journal of the American Medical Directors Association*. *J Am Med Dir Assoc*. 2019. Vol 20(8), pp963-970..

Bunn D, Jimoh O, Karrouze I, Wyatt K, Hooper L. Effective Hydration care for older people living in care homes. *Nursing Times*. 115(9): 54-8.

Jimoh O, Brown T, Bunn D, Hooper L. Beverage intake and drinking patterns—clues to support older people living in long-term care to drink well: DRIE and FISE studies. *Nutrients*. 2019. Vol 11(2), 447. <https://doi.org/10.3390/nu11020447>.

2019, Book Chapter

Chapter 6: Mixed Methods Research for “Evidenced-Based Practice Manual for Nurses”, 3rd Edition. *In press*.

2018

Bunn D., Hooper, L, Welch A. Dehydration and Malnutrition in Residential Care: Recommendations for Strategies for Improving Practice Derived from a Scoping Review of Existing Policies and Guidelines. *Geriatrics* 2018, 3(4), 77; <https://doi.org/10.3390/geriatrics3040077https://www.mdpi.com/2308-3417/3/4/77>.

2017

Craig, J., Bunn, D., Hayhoe, R., Appleyard, W., Lenaghan, E., Welch, A. Relationship between the Mediterranean dietary pattern and musculoskeletal health in children, adolescents, and adults: systematic review and evidence map. *Nutrition Reviews*. 2017. <https://doi.org/10.1093/nutrit/nux042>.

2016

Abdelhamid A, Bunn DK, Copley M, Cowap V, Dickinson, Gray L, Howe A, Killett A, Lee J, Li F, Poland F, Potter J, Richardson K, Smithard D, Fox C, Hooper L. Effectiveness of interventions to directly improve, maintain or facilitate food and drink intake in people with dementia: Eating and Drinking Well IN dementia (EDWINA) systematic review and meta-analysis. *BMC Geriatrics*. 2016. 16:26. DOI: [10.1186/s12877-016-0196-3](https://doi.org/10.1186/s12877-016-0196-3).

Bunn DK, Abdelhamid A, Copley M, Cowap V, Dickinson, Gray L, Howe A, Killett A, Lee J, Li F, Poland F, Potter J, Richardson K, Smithard D, Fox C, Hooper L. Effectiveness of interventions to indirectly improve, maintain or facilitate food and drink intake in people with dementia: Eating and Drinking Well IN dementia (EDWINA), a systematic review. *BMC Geriatrics*. 2016. May 4;16:89. doi: [10.1186/s12877-016-0256-8](https://doi.org/10.1186/s12877-016-0256-8).

Hooper L, Bunn D, Downing A, Jimoh F, Groves J, Free C, Cowap V, Potter J, Hunter P, Shepstone L. Which frail older people become dehydrated? The UK DRIE study. *J Gerontol A Biol Sci Med Sci*, 2016. 71(10):1341-7. Available at: <http://dx.doi.org/10.1093/gerona/glv205>.

Hooper L, Bunn DK, Abdelhamid A, Gillings R, Jennings A, Maas K, Millar S, Twomlow E, Hunter PR, Shepstone L, Potter JF, Fairweather-Tait SJ. Water-loss (intracellular) dehydration assessed using urinary tests: how well do they work? Diagnostic accuracy in older people. *American Journal of Nutrition*. 2016. 104 (1): 121-131. doi: [10.3945/ajcn.115.119925](https://doi.org/10.3945/ajcn.115.119925).

2015

Abdelhamid A, Bunn DK, Hooper L. Interventions to Help Older People Drink Well: Two Systematic Reviews. Gerontological Society of America Annual Meeting, November 2015, Orlando, FL, USA. *The Gerontologist* 2015;55(S2): 594.

Bunn D, Jimoh F, Howard Wilsher S, Hooper L. Increasing fluid intake and reducing dehydration risk in older people living in long-term care: a systematic review. *Journal of the American Medical Directors Association*. 2015 Feb 1;16(2):101-113. Available from: <http://dx.doi.org/10.1016/j.jamda.2014.10.016>

Bunn DK, Hooper L, Poland F. Thinking about Drinking: Identifying drivers and barriers to hydration in older care home residents. Gerontological Society of America Annual Meeting, November 2015, Orlando, FL, USA. *The Gerontologist* 2015;55(sup 2): 594. http://gerontologist.oxfordjournals.org/content/55/Suppl_2#PROGRAMABSTRACTS

Bunn DK, Hooper L, Poland, F. Thinking about Drinking: an exploratory study to identify drivers and barriers to maintaining hydration in older care home residents. 2015. British Society of Gerontology. Oral presentation.

Bunn DK, Groves J, Hooper L. Clinical signs of water-loss dehydration are ineffective in older people living in residential care. 2015. Royal College of Nursing Annual Research Conference, Nottingham. Oral presentation. http://www.rcn.org.uk/__data/assets/pdf_file/0019/620317/RCN-2015-research-Book-of-Abstracts.pdf.

Bunn DK, Shepstone L, Potter J, Hunter P, Hooper L. Can Urine Specific Gravity Screen For Dehydration In Older People Living In UK Residential Care? A Diagnostic Accuracy Study. *Irish Ageing Studies Review*. 2015. 6(1): 338 (abstract number 1299).

Hooper L, Abdelhamid A, Ali A, Bunn DK, Jennings A, John G, Kerry S, Lindner G, Pfortmueller CA, Sjöstrand F, Walsh NP, Fairweather-Tait S, Potter J, Hunter PR, Shepstone L. Diagnostic accuracy of calculated serum osmolality to predict dehydration in older people: adding value to pathology lab reports. 2015. *BMJ Open*;5:e008846. doi:10.1136/bmjopen-2015-008846.

Hooper L, Abdelhamid A, Bunn D, Brown T, Summerbell CD, Skeaff CM. 2015. Effects of total fat intake on body weight (Review). Issue 8. Art. No.: CD011834. DOI: 10.1002/14651858.CD011834.

Hooper L & Bunn DK. Detecting dehydration in older people: useful tests. *Nursing Times*. 2015. 111(32/33): 12-16.

Hooper L, Whitelock S, Bunn D. Beating dehydration – one specialist dementia home shows how to do it. *Nursing Times*. 2015. 111(34/35): 16-19.

Hooper L, Downing A, Jimoh F, Bunn DK. Predictors of Dehydration in Older People: Dehydration Recognition in Our Elders (DRIE) Study, Gerontological Society of America Annual Meeting, November 2015, Orlando, FL, USA. *The Gerontologist* 2015;55(S2): 594.

Jimoh F, Bunn DK, Hooper L. The Drinks Diary: Self-Assessment of Drinks Intake by Older People in Residential Care (FISE). Gerontological Society of America Annual Meeting, November 2015, Orlando, FL, USA. *The Gerontologist* 2015;55(S2): 594

Jimoh F, Bunn D, Hooper L. Assessment of a self-reported Drinks Diary for the estimation of drinks intake by care home residents: Fluid Intake Study in the Elderly (FISE). *The Journal of Nutrition, Health and Aging*. 2015. 19(5):491-6. Available from: <http://dx.doi.org/10.1007/s12603-015-0458-3>

Mentes, J (Chair) Clinical interventions track: drinking, fluid intake, and dehydration in older people. Saturday, November 21 8:00-9:30am. *The Gerontologist* 2015;55(sup 2, 1655): 594-5.

Nikiphorou E, Davies C, Mugford M, Cooper N, Brooksby A, Bunn D et al. The Direct Health Costs of Inflammatory Polyarthritis ten years after disease-onset: Results from the Norfolk Arthritis Register. *Journal of Rheumatology*. 2015. 42(5):794-8.

2014

Abdelhamid A, Bunn D, Dickinson A, Killelt A, Poland F, Potter J et al. Effectiveness of interventions to improve, maintain or facilitate oral food and/or drink intake in people with dementia (protocol). 2014. Available from: http://www.crd.york.ac.uk/prospero/display_record.asp?ID=CRD42014007611#_VPy3L8tyav.

Abdelhamid A, Bunn D, Dickinson A, Killelt A, Poland F, Potter J et al. Effectiveness of interventions to improve, maintain or facilitate oral food and/or drink intake in people with dementia: systematic review. 2014. *BMC Health Serv Res*;14:P1. Available from: <http://dx.doi.org/10.1186/1472-6963-14-S2-P1>

Bunn D, Jimoh F, Wilsher S, Hooper L. Effectiveness of external factors to reduce the risk of dehydration in older people living in residential care: a systematic review. 2014. *BMC Health Serv Res*;14:P11. Available from: <http://dx.doi.org/10.1186/1472-6963-14-S2-P11>

Bunn D, Jimoh F, Howard Wilsher S, Hooper L. Effectiveness of factors to reduce the risk of dehydration in older people living in residential care: a systematic review. 2014. Poster session presented at 10th International Congress of the European Union Geriatric Medicine Society, Rotterdam, Netherlands. *Eur Geriatr Med (Abstract Suppl)*; 5:s70 (03.21). Available from: <http://dx.doi.org/10.1186/1472-6963-14-S2-P11>

Hooper L, Bunn D, Jimoh FO, Fairweather-Tait SJ. Water-loss dehydration and aging. *Mechanisms of Ageing and Development*. 2014;136-137:50-58. Available from: <http://dx.doi.org/10.1016/j.mad.2013.11.009>

Hooper L, Bunn D. Should dehydration in older people be a marker of lack of quality in long term care provision? *Quality in Ageing and Older Adults*. 2014;15(4):232-236. Available from: <http://dx.doi.org/10.1108/QAOA-09-2014-0019>

Hooper L, Jimoh F, Bunn D. Clinical Nutrition in Care Homes. *Network Health Dietitians*. 2014 98:33-34. Available from: <http://content.yudu.com/Library/A35ces/NHDIssue98/resources/index.htm?referrerUrl=http%3A%2F%2Ffree.yudu.com%2Fitem%2Fdetails%2F2371954%2FNHD-Issue-98>

Hooper L, Bunn D, Prado C, Siervo M. Assessment of dehydration in older people: agreement of measured serum osmolality with calculated serum osmolarity equations. 2014. Poster session presented at 10th International Congress of the European Union Geriatric Medicine Society, Rotterdam, Netherlands. *Eur Geriatr Med (Abstract Suppl)*;5:s80(04.25). Available from: [http://dx.doi.org/10.1016/S1878-7649\(14\)70178-0](http://dx.doi.org/10.1016/S1878-7649(14)70178-0)

Hooper L, Bunn D. Predictors of dehydration in older people living in UK residential care. 2014. Poster session presented at 10th International Congress of the European Union Geriatric Medicine Society, Rotterdam, Netherlands. *Eur Geriatr Med (Abstract Suppl)*;5:s202(P385).

Lahiri M, Luben RN, Morgan C, Bunn DK, Marshall T, Lunt M et al. Using lifestyle factors to identify individuals at higher risk of inflammatory polyarthritis (results from the European Prospective Investigation of Cancer-Norfolk and the Norfolk Arthritis Register--the EPIC-2-NOAR Study). *Annals of the Rheumatic Diseases*. 2014 Jan 1;73(1):219-226. Available from: <http://dx.doi.org/10.1136/annrheumdis-2012-202481>.

Mirjafari H, Welsh P, Verstappen SMM, Wilson P, Marshall T, Edlin H et al. N-terminal pro-brain-type natriuretic peptide (NT-pro-BNP) and mortality risk in early inflammatory polyarthritis: results from the Norfolk Arthritis Registry (NOAR). *Annals of the Rheumatic Diseases*. 2014;73(4):684-690. Available from: <http://dx.doi.org/10.1136/annrheumdis-2012-202848>

Siervo M, Bunn D, Prado C, Hooper L. Accuracy of prediction equations for serum osmolarity in frail older people with and without diabetes. *The American journal of clinical nutrition*. 2014 Sep;100(3):867-876. Available from: <http://dx.doi.org/10.3945/ajcn.114.086769>

2013

Bunn DK, Jimoh F, Howard Wilsher S, et al. Effectiveness of external factors to reduce dehydration risk in older people living in residential care: a systematic review [abstract]. *Proc Nutr Soc* 2013;**72**:(OCE4), E277

Humphreys JH, Verstappen SMM, Mirjafari H, Bunn D, Lunt M, Bruce IN et al. Association of morbid obesity with disability in early inflammatory polyarthritis: results from the Norfolk Arthritis Register. *Arthritis Care & Research*. 2013 Jan;65(1):122-126. Available from: <http://dx.doi.org/10.1002/acr.21722>

2012

Bunn D, Hooper L. Effectiveness of external factors to reduce the risk of dehydration in older people living in residential care: a systematic review (protocol). Available from: http://www.crd.york.ac.uk/prospero/display_record.asp?ID=CRD42012003100#.VPy3UMtyavE.

Humphreys J, Ellis C, Bunn D, Verstappen SM, Symmons D. Obesity is associated with higher HAQ scores in patients with early inflammatory polyarthritis: Results from the Norfolk Arthritis Register. *Rheumatol* 2012; 51:iii163

Humphreys J, Verstappen SM, Bunn D, Mirjafari H, Lunt M, Bruce I et al. Obesity Is Associated With Current And Future Disability In Early Inflammatory Polyarthritis: Results From The Norfolk Arthritis Register (NOAR). *Ann Rheum Dis* 2012; 71(Suppl3):330 (FRI0064).

Lahiri M, Morgan C, Luben R, Lentjes M, Bunn D, Lunt M et al. The Relationship Between Fructose Intake, Alcohol Consumption And Serum Uric Acid Levels And The Risk Of Inflammatory Polyarthritis. Results From The European Prospective Investigation Of Cancer And The Norfolk Arthritis Register: THE EPIC-2-NOAR STUDY. *Ann Rheum Dis* 2012; 71(Suppl3 [FRI0067]):332.

Nikiphorou E, Mugford M, Davies C, Cooper N, Brooksby A, Bunn D et al. Biologic drugs account for a major part of the cost burden up to 15 years after disease onset in inflammatory polyarthritis. *Rheumatol* 2012; 51:iii167

Plant D, Farragher T, Flynn E, Martin P, Eyre S, Bunn D et al. A genetic marker at the OLIG3/TNFAIP3 locus associates with methotrexate continuation in early inflammatory polyarthritis: results from the Norfolk Arthritis Register. *The Pharmacogenomics Journal*. 2012 Apr;12:128-133. Available from: <http://dx.doi.org/10.1038/tpj.2010.80>

Funding: Grants, scholarships and funds

2020	Burdett Nursing Trust. Amount: £55,000. Lead applicant: Diane Bunn. <i>“Understanding the distinct challenges for Nurses in Care Homes: Learning from CoVid-19 to support resilience and mental wellbeing.”</i>
2019	National Institute for Health Research. Amount: £624,075. Lead Applicant: Fiona Poland. Co-applicants: Linda Birt, Diane Bunn, Guy Peryer, J Cossar, Katherine Deane, Anne Killett, Bridget Penhale Jurgen Grotz. <i>Inclusive Involvement for Research in Practice-Led Health and Social Care Theme – ARC.</i>
2019	UEA Impact Fund. Lead applicant: Diane Bunn. Amount: £6000 <i>“Publication and dissemination of the Drinkit’ Care Home Hydration Guide to Care Home Hydration Champion Teams.”</i>
2019	British Society of Gerontology Small Events Award. Lead applicant: Guy Peryer. Funding secured to host a workshop: <i>“Expanding Community Involvement in Palliative and End of Life Care”.</i>
2018	UEA Impact Fund. Lead applicant: Lee Hooper. <i>“Supporting drinking, preventing dehydration in older people”.</i>
2018	British Society of Gerontology Small Events Award. Lead applicant: Diane Bunn. Funding secured to host a workshop for care home residents, staff and families: <i>“Can research make a difference in your care home?”</i>
2018	UEA Impact Fund. Lead applicant: Lee Hooper. <i>“Recognising dehydration in older people – improving hydration in local care homes through training and dissemination”.</i>
2015	Dunhill Medical Trust. Amount: £74,889. Lead applicant: Lee Hooper; co-applicants: Diane Bunn, Anne Killett, Tamara Backhouse, Paul Hunter, Francine Cheater, Lee Shepstone. Title: <i>Creating a “pro-drinking” environment: developing & testing an innovative low-cost activity-based intervention to support care home residents in keeping hydrated (a proof of concept study).</i>

Professional affiliations and memberships

- Member of two national forums aiming to improving hydration and nutritional care in care comes.
- Peer reviewer for a number of journals and grant-awarding bodies.

Conferences and seminars

2017	Symposium organiser and presenter, British Society of Gerontology, Swansea.
2016	Presenter, Gerontological Society of America.
2015	Presenter, Gerontological Society of America.
2015	Presenter, British Society of Gerontology, Newcastle.
2015	Presenter, Royal College of Nursing International Nursing Research Conference, Nottingham.
2014	Presenter, European Geriatric Medicine, Rotterdam.

Awards

2020	Finalist, Norfolk Care Awards in collaborative working category
2019	Winner, UEA Engagement Awards 2018-19 in the Group Achievement Award
2018	Finalists for UEA Innovation and Impact Awards.
2014	Shortlisted, British Federation of Women Graduates scholarship for women doing Doctoral research.
2003	Winner, Arthritis Research Campaign British Health Professionals in Rheumatology Silver Medal Research Prize.

Diane Bunn, 19/01/2021