opinion should be sought to explore factors influencing trial participation.

Conflict of Interest None

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118 LIFE-COURSE ENVIRONMENT-WIDE ASSOCIATION STUDY (EWAS) FOR LEFT VENTRICULAR DIASTOLIC DYSFUNCTION IN THE 1946 BRITISH BIRTH COHORT

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Background and Purpose Left ventricular diastolic dysfunction (LVDD) is a key pathophysiological mechanism in heart failure with preserved ejection fraction (HFpEF) but its environmental determinants are poorly understood. Environment-wide association studies (EWAS) provide a comprehensive method to test a variety of exposures across the human environment and life-course in a high-throughput, unbiased manner. We conduct the first life-course EWAS for LVDD.

Methods Participants were from the Medical Research Council (MRC) National Survey of Health and Development (NSHD, the British 1946 birth cohort) who had echocardiographic data recorded at age 60-64 years. LVDD (outcome) was defined by the presence of ≥ 2 abnormal echocardiographic parameters out of: left atrial volume index, E/e', septal e', lateral e', and E/A, with normal cut-off values obtained from the American Society of Echocardiography guideline for LVDD diagnosis. 326 life course environmental factors (exposures) were investigated for their association with LVDD. Significant factors were identified using a logistic regression model adjusting for sex, body mass index and socioeconomic position (SEP), and a false discovery rate of 5%. Interactions between individual exposures were appraised using exposome correlation globes and matrices, and a principal component analysis.

Results A total of 1616 participants were included (50.4% men, 21.4% with LVDD). We discovered 26 factors independently associated with LVDD ($p \leq 0.05$) (figure 1). Significant factors from 0-18 years included childhood cognition (odds ratio [OR]: 0.83; 95% confidence interval [CI]: 0.69-0.99), quality of home conditions (OR: 0.90; 95% CI: 0.83-0.97), crowding of childhood dwelling (OR: 1.17; 95% CI: 1.05-1.30) and father's SEP (OR: 0.74; 95% CI: 0.56-0.98). Childhood cognition displayed inter-domain positive correlations with father's SEP and housing quality. From 19-44 years, significant factors were reading test performance (OR: 0.96; 95% CI: 0.93-0.99), oily fish consumption (OR: 0.99; 95% CI: 0.98-1.00) and canned fruit consumption (OR: 0.99; 95% CI: 0.98-1.00). Other significant factors were systolic blood pressure from 45-59 years (OR: 1.01; 95% CI: 1.00-1.02), and tissue plasminogen activator (OR: 1.04; 95% CI: 1.01-

1.08) and urine creatinine from 60-64 years (OR: 0.96; 95% CI: 0.93-1). (Figure 2) illustrates the correlations between all exposures relevant to ages 0-18 years.

Abstract 118 Figure 1 Manhattan plot displaying multivariable environment-wide associations with LVDD. Y-axis displays the $-\log_{10}(p\text{-value})$ of the logistic regression coefficient for each factor tested. X-axis indicates the exposure domains. 26 factors above the red line are significant at the $p \leq 0.05$ level. *bpproblems* = blood pressure problems, *DBP* = diastolic blood pressure, *GHQ1162* = taking longer to do things, *GHQ12.62* = doing things well, *GHQ13* = satisfied with tasks, *GHQ2162* = considering yourself a worthless person, *SBP* = systolic blood pressure, *tPA* = tissue plasminogen activator

Abstract 118 Figure 2 Exposome correlation globes for all exposures relevant to ages 0-18. Domains (key is on the right) and correlations are colour coded. Each line represents a correlation between two exposures. Correlations were analysed using Spearman's rank correlation coefficient. *Lrti* = lower respiratory tract infection

Conclusion We have unmasked and rediscovered several exposures throughout the life course that associate with LVDD in later life, including dietary factors and cognition in childhood and young adulthood. Exposures identified in this study merit multi-cohort validation and have the potential to inspire more holistic public health efforts to tackle the emerging epidemic of HFpEF.

Conflict of Interest None

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CLINICIAN EXPERIENCES OF 1 YEAR OF TELEMEDICINE HEART FAILURE CLINICS: THE VIDEO-HF STUDY

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Background Prior to Covid-19, telemedicine clinics in heart failure (HF) were rare, but social distancing measures and increased demands on health services resulted in a shift to 'remote by default' clinic appointments in many organisations across Europe. We evaluated clinician experiences of telemedicine to determine its potential use post-Covid-19.

Methods From 16th March 2020 all HF appointments at a specialist centre were telemedicine by default, with in-person appointments only in exceptional circumstances. HF clinicians were invited to participate in semi-structured interviews about their experiences of telemedicine consultations. Interviews were conducted using Microsoft Teams, recorded and transcribed verbatim. Each interview lasted approximately 30 minutes. Narrative data were explored by thematic analysis: the iterative coding and comparison of transcripts to identify themes. Analysis was performed until themes saturated.

Results Between 16th March 2020 and 15th March 2021, there were 2725 HF clinic appointments, 98.9% of which were by telemedicine. 8 clinicians were interviewed: 4 HF consultants, 3 HF specialist nurses and one training-grade doctor. Four key themes emerged (figure 1): Time management – telemedicine consultations were perceived to be more efficient, owing to more focused assessments, less time between appointments and ability to multitask, but more administrative and preparation time was required. Clinicians felt less guilty keeping consultations brief, as patients had not travelled for their appointment. Information gathering – without physical

Abstract 119 Figure 1

Abstract 119 Figure 2

examination clinicians relied more on objective data such as test results. Video was perceived as superior to telephone for assessing patients. Examination of oedema was possible by video, but more difficult and perceived to be less reliable. Rapport and relationships – telemedicine changed the patient-clinician interaction. Clinicians experienced difficulty establishing rapport with new patients by telephone; video was better than telephone, but clinicians felt that new patients were generally best assessed in-person to establish a 'connection' and relationship of trust.

Choice and flexibility – clinicians expressed a fear of 'top-down' diktats on future delivery of care. This was exemplified by the quote '...the health service has got a great tradition of making up its mind as to what the patient thinks'. Clinicians felt telemedicine consultations would continue to play a major role, as they were considered more convenient for patients, but patient choice was essential. Figure 2 shows a word cloud generated from interview transcripts.

Conclusions Telemedicine HF consultations were acceptable for clinicians, but changed workflows, consultation dynamics, and how clinicians developed rapport and trust. Understanding these changes is essential for future delivery of care. We will now seek to understand the views of patients and their families.

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HOSPITAL ADMISSIONS IN THE LAST YEAR OF LIFE IN PATIENTS WITH HEART FAILURE

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Introduction In the last year of life, patients with heart failure (HF) may experience increasing symptoms and hospitalisation, but there are few data from UK populations. Whether there are differences between HF phenotypes in the pattern of admissions is not known. We explored the frequency, causes,