

2000–2002), to model a hypothetical MVPA intervention scenario, simulating universal achievement of the government's MVPA target of 60 min (m) MVPA per day.

**Methods** 6344 children had MVPA (measured using accelerometers at 7 years[y]); of these, 4590 had data on outcome (CMHP), exposure (socio-economic circumstances) and potential confounders. CMHP at 11 y were measured using parent-reported Strengths and Difficulties Questionnaire (SDQ) total score, dichotomised using an established cut-off.

Predicted probabilities of CMHP were estimated in logistic marginal structural models, weighted for attrition, adjusted for MVPA and baseline and intermediate confounding (including externalising behaviours at 7[y], to account for potential reverse causality between MVPA and some aspects of CMHP, such as hyperactivity). Inequalities were assessed using Risk ratios (RRs) and differences (RDs) [95% CIs], according to household income quintiles. Intervention was simulated by re-estimating predicted probabilities after modifying the MVPA variable.

**Results** 49% of children achieved the 60 m MVPA target, with greater activity levels observed in lowest (65 m) compared to highest (62 m) income quintile. Greater MVPA was associated with increased risk of CMHP (RR 1.003 [0.999–1.007]), and with externalising problems in particular (RR 1.009 [1.005–1.013]).

Overall prevalence of CMHP was 12.2%, with relative and absolute inequalities between lowest and highest income quintiles (RR 2.6 [1.5–3.7]; RD 11.7 [6.0–17.4]).

Simulation of the intervention led to 96% achievement of the 60 m MVPA target (30 m average increase for all children, assuming 100% uptake). CMHP prevalence increased to 14.1%. Relative inequality decreased slightly (RR 2.5 [1.5, 3.6]), and absolute inequality increased (RD 13.3%; [6.6, 20.0]). In sensitivity analyses with internalising problems as the outcome, greater MVPA decreased absolute inequality in CMHP, but not relative risk or prevalence.

**Conclusion** Findings based on a UK-representative sample of children with objective MVPA data and a validated measure of CMHP, imply that universal achievement of the national MVPA target may not reduce prevalence in CMHP or absolute inequalities. However, these findings are likely subject to reverse causation (despite adjustment for earlier externalising behaviours). Further analyses will examine these relationships in detail, including differentiating aspects of CMHP (emotional, peer, conduct and hyperactivity subscales), using teacher-reported SDQ, and positive mental health outcomes.

**OP71 CAN YOU TURN ON A LIGHT SWITCH? EXPLORING WHETHER CHANGES TO DISABILITY-RELATED WELFARE PAYMENTS IN THE UK DISADVANTAGE CLAIMANTS WITH A MENTAL ILLNESS**

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**Background** The experiences and outcomes of welfare claimants with a mental illness following recent welfare reforms in the United Kingdom (UK) have been explored as part of larger studies on the impact of such changes on people with disabilities but detailed evidence for this group of claimants is limited. This research explores the experiences and assessment

outcomes of claimants with a mental illness undergoing changes to their disability-related welfare payments in the UK. **Methods** Experiences of welfare reform were first explored in interviews with claimants. Participants reported that they felt disadvantaged by having a mental illness when trying to obtain financial support compared to if they had a physical health condition (see results). This perception of differential outcomes was then explored through administrative data analysis.

Individuals with a mental illness (n=18) living in Leeds, England were recruited via community support organisations and interviewed between January and April 2017. Data were analysed in Nvivo using a thematic analysis framework. The final sample consisted of individuals aged between 25–65, experiencing a range of mental health conditions including depression, anxiety, psychosis, bipolar affective disorder and borderline personality disorder.

Department of Work and Pensions administrative data for all claimants changing from Disability Living Allowance (DLA) to Personal Independence Payments (PIP) between 2013–2016 (n=470, 800) were then extracted to explore whether claimants with mental illness experienced differences in the level of financial support they received under the new system compared to claimants with non-psychiatric conditions. Odds ratios were calculated in Stata 15.1 to explore differences in assessment outcomes – whether existing financial support (DLA) increased, stayed the same or decreased under the new system (PIP) for claimants with psychiatric compared to non-psychiatric conditions.

**Results** Interviewees reported that the updated eligibility criteria associated with changes to welfare payments did not appear to take account of the difficulties associated with mental health and described an assessment process focused primarily on physical capability. Further analysis using data on claimants transferring from DLA to PIP revealed that individuals with psychiatric conditions were 1.31 (95% CI 1.29, 1.32) times more likely to have their financial support reduced or withdrawn entirely when transferring from DLA to PIP, compared to claimants with non-psychiatric conditions.

**Conclusion** These findings provide a starting point for exploring whether recent reforms to welfare payments in the UK have disadvantaged claimants with a mental illness and raise questions as to whether there is parity of esteem between mental and physical health in the welfare system. Given ongoing concerns regarding the marginalisation of people with mental illness, further research is needed to confirm these findings and to address any inequalities that may be present.

**OP72 BEING ALONE TOGETHER: A LONGITUDINAL DYADIC ANALYSIS ON THE IMPACT OF LONELINESS AND RELATIONSHIP QUALITY ON WELLBEING IN COUPLES COPING WITH DISABILITY**

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**Background** Couples coping with disability are at an increased risk of experiencing poor wellbeing, this may be due to the potentially harmful effects of loneliness and poor relationship quality that this population are frequently exposed to. Both