

for its quality and value, with increase in its rating in the course of 10 years. Medical students of the Israeli Medical Corp. respond similarly to the programme and express a need for further training in communication with adolescents.

P20 THE RELATIONSHIP BETWEEN A TRUSTED ADULT AND ADOLESCENT HEALTH AND EDUCATION OUTCOMES: A SYSTEMATIC REVIEW

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Aims The presence of social networks is recognised to be a protective factor for adolescents' health and wellbeing, with the role of 'trusted adults' recently coming into sharper focus. There is, however, little review-level evidence concerning such relationships. **Aims:** 1) Identify what constitutes a trusted adult. 2) Evaluate the association between trusted adults and adolescent health/education outcomes. 3) Identify how to establish/maintain trusted adult relationships.

Methods Search terms (e.g., 'trusted adult', 'natural mentor', 'supportive adult') were used to query 13 bibliographic databases. Inclusion criteria: adolescents aged 10-19 years; role of trusted adult, defined as 'someone who children and young people may turn to for help, and will take them seriously'; reports health/educational outcomes; published between 01/01/07 and 31/12/17; English language. Exclusion criteria: parenting programmes; focus on populations with specific pre-existing health/learning conditions.

Results Of 2,908 retrieved articles, 192 met inclusion criteria. Most described primary quantitative studies (136 articles, including 14 randomised controlled trials) with 25 qualitative and 18 mixed-methods studies. Four meta-analyses, six systematic reviews, and three narrative reviews were also included. Whilst there exists no universal definition of the trusted adult role, commonly observed qualities include assistance with personal emotional problems, a close emotional bond and someone that 'makes an important positive difference'. Existing quantitative evidence provides an unclear picture of the association between trusted adult presence and adolescent outcomes, with reviews predominantly finding no overall effect or small effect sizes. A number of methodological issues were identified which may, in part, explain these modest and inconclusive findings. Chiefly, quantitative studies tend to use vague definitions of the trusted adult role. Qualitative studies are less ambiguous in this respect and tend to more frequently indicate a beneficial impact of the role. Barriers and facilitators to establishing a trusted adult relationship were identified. These suggest the youth work sector is particularly well placed as a setting to establish trusted adult relationships.

Conclusion Methodological limitations in existing literature mean it is difficult to make firm conclusions on the impact of the trusted adult role on adolescent outcomes. Recommendations are proposed for future research including the use of mixed-methods approaches.

P21 SCHOOL-LEVEL PREDICTORS OF CONDUCT PROBLEMS TRAJECTORIES

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Background and aims Conduct Problems (CP) can differ in terms of continuity/desistence across different stages of life such as childhood and adolescence. Although there have been a number of research efforts to investigate individual-level factors associated with continuity/desistence of CP in adolescence, less is known about school factors that may potentially underlie continuity/desistence of CP such as school-level factors. Our aim is to systematically investigate a number of school-level factors that may predict CP trajectories while controlling for individual-level factors.

Methods We run longitudinal latent class analysis (LLCA) to identify trajectories of CP across adolescence using the Learning Together study dataset. We then investigated the role of a number of school-level factors in predicting class membership using multinomial logistic regression. We identified two classes of CP: a stable low and a moderate-high class across males and females.

Results A number of school-level factors such as student-teachers' relationships, sense of belonging to the school and participation in school activities predicted persistent patterns of CP in males and females separately. Positive school atmosphere was found to be strongly associated with a lower risk of persistent CP across males and females.

Conclusions Student-teachers' relationships, sense of belonging to the school and participation in school activities are important aspects that researchers and schools should consider when implementing prevention and intervention programs for youth with CP and antisocial behaviour.

P23 THE HEALTH OF MALAYSIA'S ADOLESCENTS: FINDINGS FROM THE GLOBAL BURDEN OF DISEASE 2017 STUDY

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Aim The epidemiological transition has resulted in a large population of adolescents in Malaysia, whose health burden is poorly described. We set out to provide a comprehensive profile of health in Malaysian adolescents to illustrate important targets for health actions.

Methods A conceptual framework for reporting health and wellbeing of Malaysian adolescents was defined to measure health outcomes, health risks and sociocultural determinants. Data from the Global Burden of Disease 2017 study were used to analyse mortality (all-cause and cause-specific

mortality), morbidity, total disease burden and selected health risks and determinants for 10-24-year-old Malaysians, by three age groups (10–14, 15–19 and 20–24 years) and sex, from 1990 to 2017.

Results While the total disease burden decreased, most of this decrease was due to mortality, with morbidity mostly unchanged for all age groups and sexes between 1990 and 2017. Most of the reductions in disability-adjusted life years (DALYs) appear driven by a reduction of mortality from vaccine preventable diseases and maternal causes, across all age groups. Communicable diseases remain most prevalent in the 10–14-year-olds and some causes (e.g. diarrheal diseases, dietary iron deficiency) have increased by 2017. Morbidity from non-communicable diseases (NCDs) continued to be high in 2017. By 2017, mental disorders (e.g. anxiety, depression, conduct disorders) and chronic physical disorders (e.g. migraine, low back pain) were important contributors of morbidity for all adolescents. Motor-vehicle accidents were the principal cause of death in 15–19 and 20–24-year-olds of both sexes, while drowning and lower respiratory infections were the leading causes of death in 10–14-year-old males and females, respectively. The prevalence of male tobacco smoking had changed little across all groups, highest for males aged 20-24 years at 49.4% in 1990 and 44.4% in 2017. In contrast, rates of overweight and obesity had tripled in females and quintupled in males. Rates of youth not in education, employment and training rates had decreased, while adolescent fertility rate has halved from 1990.

Conclusion These data highlight that adolescent specific interventions are inadequate and health actions are required to address the disease burden from NCDs, injuries, some communicable diseases and obesity, which in addition to the health sector, will require multisector actions.

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UPTAKE OF THE MENACWY VACCINE AND VACCINATION VIEWS AMONG FIRST-YEAR STUDENTS AT A LONDON UNIVERSITY

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Background New university students are at particular risk of invasive meningococcal disease (IMD). Group W, a particularly aggressive strain, is increasing in prevalence and the high case-fatality rate is concerning. This age group has been offered the MenACWY vaccine since 2015. National uptake has been low, leaving students vulnerable to infection.

Aims To investigate MenACWY uptake, knowledge of and attitudes towards vaccination among first-year students, with the aim of informing university vaccination policy and practice.

Methods A mixed methods approach was used, involving a questionnaire (response rate = 4.4%, $n=144$) and follow-up interviews ($n=13$). Eligibility criteria were first year students, undergraduates and over the age of 18. Statistical tests, including multiple logistic regression, were carried out and interviews were analysed thematically.

Results MenACWY uptake was 84%, with more socioeconomically disadvantaged students less likely to be vaccinated

(aOR = 0.117, $p=0.006$). Most students thought vaccines were safe (95.1%) and important (97.2%). Students with above average knowledge were more likely to be vaccinated (OR=3.057, $p=0.019$). Students unaware that meningitis can be fatal were less likely to be vaccinated (aOR = 0.173, $p=0.035$). Vaccination views were positive and knowledge level was moderate to high. Reasons for vaccination include influence of authority figures and peers, to avoid disease and due to an inherent trust of vaccines. Reasons for non-vaccination included temporary illness, laziness, forgetfulness and difficulty with GP access. Opinions regarding the university's vaccination campaign were positive, and in particular there was praise for the university's awareness campaign. Issues raised by this study include difficulty in accessing GP services and the belief that the vaccine prevents any cause of meningitis.

Conclusion High vaccine uptake is essential to protect students. Uptake was higher than at other universities in previous studies. These results highlight several areas requiring further study, including the association between uptake and socioeconomic group and understanding of post-vaccination risk of meningitis. This research has implications for vaccination policy at UK universities.

P25

INEQUALITIES IN ADOLESCENT SMOKING IN THE UK MILLENNIUM COHORT STUDY: ESTIMATING THE RELATIVE CONTRIBUTIONS OF VERBAL ABILITY AND SELF-REGULATION

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Smoking is a leading cause of morbidity and preventable death in the UK. Adolescence is a time when smoking behaviours are often initiated, therefore it is important to understand potential risks and protective factors. Higher cognitive development in adolescence is related to a lower likelihood of smoking. Cognitive development is characterised by the growth of abilities and skills in multiple domains, including verbal ability. Similarly, higher 'non-cognitive' ability has been associated with lower levels of smoking. One element of 'non-cognitive' ability is self-regulation which refers to an individual's control of thoughts, emotions and behaviour in order to achieve a goal. Socioeconomic disadvantage is associated with higher rates of initiation and progression to daily smoking. In addition, verbal ability and self-regulation are generally lower in socioeconomically disadvantaged children. We investigated whether the relationship between early socioeconomic circumstances and adolescent smoking was partially driven by cognitive development and/or self-regulation. Using an Oaxaca-Blinder decomposition model, we estimated the relative contributions of verbal ability and/or self-regulation at 11 years to the association between early life socioeconomic disadvantage captured by household poverty status at 9 months and smoking in adolescence (at 14 years) in the UK Millennium Cohort Study ($N=6,737$). Verbal ability was assessed using a validated, age-appropriate test, the British Ability Scales Second Edition (BAS 2). Five parent-rated items from the Strengths and Difficulties Questionnaire were