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Background Multiple myeloma is an incurable cancer, although recent treatment advances have improved expected survival from months to years in some cases. Increasing survival has elevated the importance of understanding and measuring patients' quality of life (QOL) in research and clinical settings. A number of QOL questionnaires exist for use in myeloma, yet there is a paucity of research to understand what issues are important to QOL from the patients' perspective.

This study explores the issues important to the QOL of people with myeloma, and how QOL is affected by the disease and its treatment. Implications for the design of QOL questionnaires are discussed.

Methods In-depth qualitative interviews with 20 myeloma patients to identify issues important to QOL and explore the impact of disease and treatment. Participants recruited from King's College Hospital and St. Christopher's Hospice, London. Purposive sampling by age, gender, performance status and disease stage. Thematic content analysis of interview transcripts was conducted.

Results Many participants started by discussing the importance of physical function and independence. There appeared to be a dominant role for participatory function in determining QOL – family life, leisure pursuits and other social activities were often identified as important. Physical symptoms such as pain or fatigue were frequently said to be affecting QOL, but often this was through their affect on social and participatory function. Sometimes symptoms were reported, but they did not affect QOL because functional and participatory aspects were maintained. Issues that prevented social engagement or participation were often therefore most deleterious to QOL – such as reduced mobility; susceptibility to infection; and fear of low-trauma fractures. Participants also often discussed the importance of quality, accessible healthcare – particularly good communication and receiving the right amount of information from professionals.

Conclusion These results support the broad consensus that quality of life is multidimensional, involving physical, psychological and social domains. The presence of symptoms *per se* did not necessarily impair QOL in this group. QOL questionnaires for use in myeloma should perhaps focus less on the presence, absence or severity of a symptom, but consider how much of a problem the symptom is in terms of its broader impact on function. This is particularly important when tools are applied in clinical practice, when the wider burden of symptoms is perhaps of greater interest. Tools for use in myeloma clinical practice should also consider items about the quality of healthcare – since this appears important to patients' QOL.

PS44 WHAT IS THE NATURE AND EXTENT OF ALCOHOL ADVERTISING ON FACEBOOK?

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Background There is a growing evidence base that alcohol advertising increases consumption, particularly amongst young people. Alcohol companies are increasingly using social media, such as Facebook, as a critical part of their marketing campaigns. The Advertising Standards Agency (ASA) states that alcohol advertising must not link alcohol with social success. However, by using a platform which is inherently social, alcohol companies can implicitly link their brand with these concepts. This study aimed to describe the nature and extent of alcohol advertising on Facebook.

Methods A quantitative descriptive analysis of UK Facebook brand pages of the highest volume sales brand for spirits, beer and cider (Smirnoff GB, Carling and Strongbow respectively) amongst

the key Facebook user demographics (18–25 year olds). We collected all status updates for each brand page over a month. These appeared on the Newsfeed of those who Like the brand. The status updates were coded using concepts expressed in the ASA standards, the Committee of Advertising Practice (CAP) Code and the alcohol marketing literature. The frequencies of the identified categories were then calculated for each brand and for all three brands. The numbers of likes and comments of each status was also recorded.

Results 85 status updates were collected. The average number of status updates each day was 0.94 overall. The number of people receiving these updates at the time of writing is in total 881,398. The total number of likes and comments is 12,984 and 4,780 respectively. The most frequently occurring code was a reference to the Carling Cup. The codes used that refer to enhanced social or sexual success (which is in contravention of the ASA rules) were references to 'dating' and 'partying'. These occurred less often. All the brands encouraged user interaction by asking users a question (32 updates, 37.6% of all posts) and 'fill in the gap' statuses.

Conclusion This initial research suggests that the alcohol industry is using Facebook to engage with a large number of young consumers through frequent status updates. There is some evidence that the content on the pages is in contravention of ASA regulations. Further research needs to be conducted in this area in order to determine the effect that alcohol marketing via social media is having on levels of consumption of alcohol and initiation of consumption by young people in order to provide strong evidence for tightening ASA standards that reflect the advancement of alcohol advertising using Facebook.

PS45 ADDRESSING CHILD POVERTY – THE ROLE OF THE NHS WORKFORCE

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Background Glasgow, like other UK cities, faces the challenge of addressing high child poverty levels - 52% of children, in some parts of the city, live in poverty. Within NHS Greater Glasgow and Clyde, the Healthier, Wealthier Children (HWC) project was set up to create referral pathways between the NHS and money advice services to support pregnant women and families at risk of child poverty. The 15 month project, launched in October 2010, was funded by the Scottish Government.

The evaluation, being undertaken by the Glasgow Centre for Population Health, will conclude in April 2012. This paper aims to describe the HWC evaluation findings with a focus on two key objectives: development of the NHS workforce role and mainstreaming child poverty action within this role.

Methods A mixed methods approach to the HWC evaluation included capturing and describing the changes in the NHS workforce roles through documentary analysis, an NHS workforce survey and outcomes from money advice services.

Results An HWC website was set up to provide staff materials, case studies and practical recommendations on child poverty work as an NHS workforce resource. Other ongoing work includes creating midwife/patient web-based scenarios to be used as a national resource.

Although not part of the existing NHS performance framework (i.e. HEAT targets), there is evidence that HWC work is being embedded. Most referrals to advice services were made by health visitors (51%) and midwives (29%). The majority of both workforces (81/84; 96%) intend to continue referring post-HWC. Moreover, health visitors ranked clients' money worries as a priority above three national HEAT targets.

To date, 2,516 referrals were made to money advice services which resulted in uptake of 54% (n=1,347) among pregnant women

and families with young children. More than seven out of 10 people accessing advice services were eligible for Healthy Start vouchers (benefits related) which can be exchanged for milk, fresh fruit and vegetables. There was a total recorded annual gain of just over £2.7 million and £328,000 in one-off lump sums. Other reported client outcomes included immigration advice, addressing fuel poverty and onward homelessness referrals.

Conclusion This paper will suggest that HWC has resulted in positive outcomes towards mitigating the impact of child poverty. Midwives and health visitors have played an active role and there is scope to develop this work across the wider Early Years workforces.

PS46

THE COMPLEX ASSOCIATION BETWEEN BLOOD GLUCOSE CONCENTRATION AND BIRTH WEIGHT IN WOMEN WITH PRE-GESTATIONAL DIABETES

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Background Large fetal size (macrosomia) is a frequent pregnancy complication in women with diabetes. High blood glucose during pregnancy is hypothesised to explain much of the association, but previous investigations have presented equivocal results. This could be due to inadequate adjustment for confounding factors or a non-uniform association between blood glucose concentration and birth weight.

This study investigated the association between blood glucose concentrations during early and late pregnancy and birth weight in women with pre-gestational diabetes, whilst accounting for a range of potentially relevant clinical and socio-demographic factors.

Methods All singleton births in women with pre-gestational diabetes delivered during 1996–2008 were identified from the Northern Diabetes in Pregnancy, a population-based survey of all pregnancies occurring in women with pre-gestational diabetes in the North of England. Cases of congenital anomaly (identified from the Northern Congenital Abnormality Survey) were excluded.

Three measures of glycated haemoglobin concentration (HbA1c) were obtained, to estimate the blood glucose concentration around conception, and during the second and third trimesters. The associations between HbA1c at these time points, a range of other clinical and socio-demographic variables, and birth weight were examined by multiple linear regression. The total and indirect associations were further examined by path-analysis. Gestational age was modelled as a three-order polynomial.

Results Increasing peri-conceptual HbA1c was associated with reduction in birth weight (adjusted regression coefficient, $b=-50.4$ grams per 1%, 95% CI: -71.1 to -29.6), while increasing third-trimester HbA1c was associated with increase in birth weight ($b=171.9$ grams per 1%, 95% CI: 132.1–211.7). There was no association between birth weight and second-trimester HbA1c.

Of the other variables in the adjusted model; male sex, increasing maternal height, increasing maternal BMI, multiparity, and later gestational age at delivery were all significantly associated with larger birth weight, while increasing maternal age, later gestational age at booking, maternal smoking, history of pre-pregnancy nephropathy or retinopathy were all significantly associated with smaller birth weight.

Maternal socio-economic status (estimated from maternal post-code at birth) was associated with a range of birth weight modifiers (maternal height, BMI, age, parity, smoking status, and periconceptual HbA1c), but as these acted in opposite directions, the overall effect on birth weight was negligible.

Conclusion Maternal blood glucose concentrations are associated with birth weight, but the association is complex, reversing as pregnancy progresses. For women with pre-gestational diabetes, maintaining good glucose control throughout pregnancy is likely to be associated with the lowest risk of pathological fetal size.

PS47

COULD IMPROVED TRAINING OPPORTUNITIES REDUCE HEALTH WORKFORCE MIGRATION FROM SUB-SAHARAN AFRICA? EVIDENCE FROM A DISCRETE CHOICE EXPERIMENT AMONG PHARMACISTS

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Background Sub-Saharan Africa (SSA) suffers from acute shortages of all types of health workers, partly due to high rates of health workforce migration (HWM) to high-income countries. The role of non-financial incentives in HWM is inadequately defined and their potential as policy levers is overlooked. This study examined the hypothesis that improved local education opportunities could alter the relative uptakes of local and foreign training, ultimately reducing education-led HWM from SSA. Initial qualitative research (reported separately) found that SSA pharmacists valued seven key education-related factors: location (SSA or elsewhere), cost, availability of their preferred course, learning approach (theoretical or practical), course length, access to learning resources (e.g. equipment) and institutional quality.

Methods A discrete choice experiment (DCE) was designed to enable quantification of the relative influence of these attributes on SSA pharmacists' education location decisions. Convenience and snowball sampling strategies were necessary, due to limited resources and incomplete sample frames. Participants self-administered a paper- or web-based DCE, comprising 16 labelled choice sets. Each choice set consisted of three hypothetical alternatives: a nominally SSA-based education opportunity (encompassing some split-site programmes with varying proportions of time spent abroad); a fully foreign-based education opportunity; and a 'delayed choice' option. Hypothetical alternatives were differentiated in each choice set, by varying the levels of the seven education attributes, which represented current and prospective standards for each attribute. Respondents chose one alternative per choice set. The resulting choice data were modelled using the mixed logit model, taking into account respondents' socio-demographic characteristics and varying preferences.

Results 428 practising pharmacists and pharmacy students, of SSA origin and any migration status, were recruited in Ghana (face-to-face), the UK and online (both via email). Approximately one-third of respondents displayed unvarying, dominant preferences for one education alternative, regardless of variations in the seven attributes. The preferred alternative in this group was usually the education alternative located fully overseas. Nevertheless, two-thirds of respondents were willing to make at least one trade-off between different levels of different attributes, i.e. the majority of respondents chose the local alternative and the overseas alternative at least once each.

Conclusion The results are intended to inform policymakers seeking new and sustainable ways to address the crisis of HWM in low-income countries. These findings offer hope that a non-trivial proportion of health workers, who migrate to pursue education abroad, might be persuaded to study at home if policymakers implemented desirable changes to local education opportunities.