Reducing ethnic inequalities in paediatric diabetes care: A Nottingham perspective

Ethnic inequality is a fundamental determinant of health (Jee-Lyn García and Sharif, 2015), and racism has been described by Professor Kevin Fenton, of Public Health England (PHE), as a "wicked problem" – a complex problem that is highly resistant to solutions. When discussing a recent report from PHE about the impact of COVID-19 on Black, Asian and minority ethnic (BAME) communities (PHE, 2020), Professor Fenton stated:

> *"Now is the time for us to recognise the connection between structural racism and racialised disparities in health."*

Recent amplification of the voice of Black Lives Matter and a disproportionate number of deaths from COVID-19 in Black and Asian people has re-focused attention on racial health inequalities. Racial stratification is annually and amply demonstrated in the UK National Paediatric Diabetes Audit (NPDA), which continues to reveal a widening socioeconomic and ethnic disparity in use of technologies associated with lower HbA_{1c} and improved health outcomes (Royal College of Paediatrics and Child Health [RCPCH], 2021).

Nationally, the use of insulin pump therapy is 50% more likely in White British children (39.8%) compared with Black children (26.7%), and yearly mean HbA_{1c} remains higher in Black children, independent of the level of deprivation. Black children in the least deprived quintile have a similar mean HbA_{1c} to White children in the most deprived quintile (68.3 mmol/mol [10.8%] and 68.1 mmol/mol [10.7%], respectively).

Ethnic inequalities, historic and current, underpin the differences in housing, education, employment, and prison sentencing in every stratum of life, and harm all of society. The social determinants of health tend to favour White children over Black children and those of ethnic minorities. This contributes to a lack of trust in "the system", including healthcare, and often means both children and adults from ethnic minorities may not engage in the therapeutic process as readily as White people. This may be due to cultural reasons, especially if the clinical team are not of the same demographic and services are not shaped to include these minorities. In addition, our own conscious or unconscious bias as healthcare professionals (HCPs) can impact health outcomes.

We aspire to impartiality in the treatment of all our patients, but an excellent systematic review by Fitzgerald and Hurst (2017) shows HCPs demonstrate the same level of implicit bias as the general population. Implicit bias is caused by unconscious associations leading to a negative evaluation of a person on the basis of irrelevant characteristics, such as race or gender. The stronger our implicit bias, the worse care we will unknowingly give as it affects rapport, diagnosis, treatment decisions and levels of care. This impacts on trust between BAME communities and the medical profession. This was recently highlighted by the decreased uptake of COVID-19 vaccines in BAME communities, and this included HCPs from BAME backgrounds. Conversely, increased trust correlates with better glycaemic control, more beneficial health behaviours, fewer symptoms, higher quality of life and increased satisfaction with treatment (Birkhäuer et al, 2017).

Key quality improvement initiatives implemented in England and Wales over the past 10 years have seen a reduction in median HbA_{1c} of 11 mmol/mol, but have done nothing to reduce the discrepancy of around 7 mmol/mol (median HbA_{1c}) between Black and White children, with those of Black ethnicity having the highest average HbA_{1c} year on year (RCPCH, 2021).

The first key principle of the NHS is to provide equality of care and pay particular attention to groups or sections of society where improvements in health and life expectancy are not keeping pace with the rest of the population. With this in mind, we examined data on the 387 children with type 1 diabetes in

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Nottingham from April 2020 to March 2021, in line with the NPDA methods.

Ethnicity results

Nottinghamshire has always been an early adopter of technology and has higher pump use across all ethnic groups compared with the national figures (*Table 1*). The mean HbA_{1c} in Nottinghamshire is lower across all ethnic groups than nationally. Most notably, the mean HbA_{1c} is 13.1 mmol/mol lower in Black children in Nottinghamshire (58.8 mmol/mol, compared with 71.9 mmol/mol nationally). The mean HbA_{1c} for children identifying as mixed-ethnicity, however, is only 3.5 mmol/mol lower in Nottingham compared with national figures.

Importantly, the mean HbA_{1c} in Nottinghamshire is almost equal in children identifying as White and Black, with a difference of only 1.7 mmol/mol, compared with a national difference of 7.3 mmol/mol.

Part of Nottingham's success may be attributed to its "give it a go" attitude, rather than a "will they cope?" approach. There is also intensive multidisciplinary team support for those on the high HbA_{1c} pathway (Fradley et al, 2016).

Socioeconomic results

In Nottinghamshire, the national trend of pump distribution and HbA_{1c} is reversed; the least deprived receive the fewest pumps (41%) and have the highest HbA_{1c} (59.4 mmol/mol), while the most deprived use the most pumps (63%) and have the lowest HbA_{1c} (54.9 mmol/mol). The reasons for the differences are not clear, but if children from the least deprived backgrounds are meeting targets with multiple daily injections, then a pump will not be offered, and for some, the pressure of conforming at private school means they do not want a pump as a visible sign of their diabetes.

Table 1. Insulin pump use in Nottinghamshire compared to the national average.

Ethnicity	Nottinghamshire (%)	National (%)
White	54	40
Asian	56	30
Mixed	46	35
Black	41	27

Conclusion

Nottingham is significantly ahead of the national average for both for pump provision and HbA_{1c} in Black and Asian children with diabetes, as well as those in the poorest socioeconomic groups. This demonstrates that equality is possible; however, even in Nottingham, some disparity remains. Identifying this is the first step. Becoming aware of unconscious bias and mitigating against barriers to equality will ensure we achieve equitable treatment and outcomes for our patients, as the key principles of the NHS remind us.

On an individual level, there are resources available to help identify implicit bias, such as the 10-minute Harvard Implicit Association Test (https://implicit.harvard.edu/implicit/). There are also implicit bias e-learning modules available through most NHS Trusts. Self awareness of bias should prompt us to seek the professional opinion of a diverse range of colleagues to ensure our decision making is equitable. Furthermore, listening to the patients' voice, especially in those from ethnic minorities, is key.

On an organisational level, measuring the data facilitates discussion around strategies to reduce discrepancy. Employing an ethnically diverse team (Fradley et al, 2016) is also important.

Further reading

Reni Eddo-Lodge's book *Why I'm no longer talking to White people about Race*, provides an excellent overview, illuminating the insidious racial prejudice that pervades our institutions and country. ■

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