CONSISTENCY VERSUS EQUITY - CARDIOVASCULAR DISEASE MANAGEMENT FOR SOUTH ASIANS IN THE UNITED KINGDOM

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ABSTRACT

An increased risk of coronary heart disease was an immediate healthcare concern following the mass arrival of South Asian immigrants to the UK, and it has since contributed as a persistent source of health inequality. The process of risk assessment and management in the UK has been backed by a strong body of scientific evidence, but there are limitations. For example, the cardiovascular risk profile amongst South Asians appears different to Whites. Health policies, which strive for consistency in risk assessment and management, can exaggerate such weaknesses, contributing to inequalities in healthcare. There is an urgent need for scientific proof that can improve the availability of tailored prevention and intervention services. Deficit in communication is a key concern for many South Asians and non-English speaking patients, which not only impacts on the access to services, but also creates critical delays with respect to diagnosis and treatment for acute myocardial infarction. Linguistic tools and language education perhaps play an undervalued role in coronary heart disease management.

Keywords: South Asian, coronary heart disease, language, health inequality.

INTRODUCTION

The elevated burden of coronary heart disease (CHD) amongst South Asians in the United Kingdom is a complex and multifactorial phenomenon whereby simplistic policies for risk assessment and management contribute to damaging health inequalities, which are worsened by failures to initiate or improve effective cross-cultural communication.

Perceptions of impartiality, equity and accessibility, within the UK National Health Service, repeatedly arise when serving members of ethnic minority groups.¹ Individuals from these groups must compete with the general population for finite health resources if they are to benefit from the often foreign workings of a healthcare system. Given this degree of unfamiliarity, the temptation must surely be to become frustrated with marginalised, generally non-indigenous persons for their failure to acquaint themselves with the NHS. Evidence suggests, however, that Central and Eastern European migrants,² the homeless,^{3,4} asylum seekers⁵ and drug dependent persons,⁶ add to the diversity of an evolving landscape of patients for whom the provision of healthcare is not sufficiently sensitive. These groups experience limited access to the full range of healthcare services.^{2,5,6} The situation is further complicated by language differences⁵ and the hazard of consultation delays, for which the evidence of a negative impact is widespread and includes: antenatal care,7 life limiting diseases,8 falls in the elderly,⁹ tuberculosis,¹⁰ and organ donation.¹¹

These themes of 'barriers to healthcare' and 'language difficulties' continue as recurring issues

for more established migrant groups, such as South Asians in Britain.⁸ The mass immigration of people from India, Pakistan, Bangladesh, and Sri Lanka (South Asia) to the UK, particularly from the 1960s onwards, began the formation of a legacy of health needs,¹² unique due to the scale of migration. The increased coronary heart disease (CHD) risk and its management among South Asians provide an important and instructive example of the difficulties faced in the provision of equitable healthcare.

CORONARY HEART DISEASE RISK IN SOUTH ASIANS

Myocardial infarction is disproportionately more common amongst South Asians living in the UK.¹³ Not only does this group develop CHD earlier,¹⁴ their increased risk persists but despite conventional antihypertensive and lipid lowering therapy.¹³ Indeed, CHD in South Asians represents a long-standing public health concern,¹⁵ in part because the origins of this increased risk, estimated to be 40% greater than that of the indigenous British population,¹ are poorly understood. Moreover, this risk may be even higher amongst newer generations of British South Asians.¹⁶ This burden of CHD is also mirrored by both a higher prevalence of diabetes and a higher risk of its associated complications.¹⁷⁻¹⁹ Retinopathy and renal failure are both more $common^{\rm 18,20}$ and more $progressive^{\rm 21}$ than in the general population, whilst diabetic nephrophathy has been reported to be 40-fold higher than in White diabetics.²⁰ Such co-morbidities are likely to complicate clinical and radiological assessment, which may, perhaps in part, explain why South Asians presenting with chest pain in UK hospitals experience greater delays with respect to diagnosis and treatment for acute mvocardial infarction.^{22,23}

There are also more subtle disparities with respect to CHD risk. Low density lipoprotein (LDL) cholesterol is, for example, reportedly lower in South Asians compared to Whites, but at similar levels between the two groups, the risk of CHD among South Asians is still higher.²⁴ Similarly, cardiovascular events in South Asians occur when blood pressure is well within clinically accepted normal levels.^{25,26} Furthermore, whilst evidence suggests that South Asians living in Britain have experienced a significant advance in blood pressure, obesity and total cholesterol associated with migration from the Indian subcontinent, such deleterious changes are difficult to discern against reference ranges which are based upon the general UK population.²⁷

TAILORED HEALTH PROMOTION

Whilst the health prospects for South Asians appear to be relatively bleak, healthcare advances, the early identification and treatment of CHD, and the improved awareness of cardiovascular risk factors amongst the wider population, underpin a decreasing trend in CHD mortality in the UK.²⁸ Such trends are, however, less apparent in South Asians.²⁹ Hence, while national strategies for cardiovascular health promotion and risk assessment appear justified,³⁰ a key concern is that much of the scientific evidence that has been used to develop guidelines and policies for CHD are derived predominantly upon material which is extrapolated from data derived from the White population.

These policies thus fail to acknowledge the uniqueness of the cardiovascular risk profile amongst South Asians, which does not appear to exhibit those same CHD risk factors that are manifested in other groups.^{31,32} There have been attempts to provide the redress to this problem. For example, ethnic adjustments in the approximation of cardiovascular risk. QRISK2 offers an improvement over the standard Framingham equation approach. However, this is a changing area and until new evidence emerges, current guidelines recommend that the estimated CHD risk for men with a South Asian background should be increased by a factor of 1.4.33 ETHRISK34 is another web-based CHD risk score available, but this needs further validation amongst South Asians. These proposed increments and 'ethnicityadjustments to CHD risk prediction related' scores are popular. However, such adjustments can lead to ambiguity - a high risk South Asian identified using such adjusted risk scores typically has CHD risk factors at levels unworthy of intervention. What is needed is a focused cohort study that develops a validated risk assessment approach.

Furthermore, the reducing trend of CHD mortality amongst minority groups in the UK may also be a result of community and charity-based initiatives that have attempted to improve the quality of service provision and equality of access among South Asian patients. Whilst it is often asserted that the increased availability of tailored prevention and intervention services will help to reduce such damaging disadvantages in healthcare, the efficacy of such approaches remains largely unproven. Given this greater disease burden amongst South Asians, national policies that strive for consistency and simplicity in risk assessment and service design may paradoxically increase health inequality amongst UK South Asians.

IMPROVING COMMUNICATION

Factors that influence migrant health inequalities are widespread and varied and are related to the patient, the healthcare organisation and to socioeconomic factors. These include: fears about treatment side-effects, lack of social support, perceived lack of confidentiality, the fear of social stigma associated with some illnesses, difficulty accessing transport (including cost), as well as the lesser priority sometimes afforded to female family member's healthcare.³⁵ Cultural discordance can arise from a failure of the healthcare organisation to accommodate traditional culture, a lack of translated patient education materials, and for female patients by fearing not being able to consult with a female clinician.³⁵

Organisational factors which adversely influence migrant groups from properly engaging with the healthcare provided include the difficulty providing translators and the difficulty of threeway communication, even when they are present.³⁵ For example, conversational 'small talk' between the patient and interpreter is rarely translated, even when clinically relevant.³⁶ Moreover, institutional and even personal racism are still experienced by patients from migrant populations.⁸

Evidence indicates that these disparities in outcome are exacerbated by organisational and cultural barriers faced by such communities when attempting to access services.³⁷ There is an urgent need to understand how these delays influence patients and contribute to delays in seeking medical care, as well as delaying accurate and timely assessment and treatment. Whilst socio-economic and cultural influences are likely to play a key role, such influences are likely to be exacerbated by deficits in communication skills,^{38,39} which are fundamental when marginalised groups attempt to access

services and facilities embedded within a health system that is skewed towards the majority population.

Strategies that are used within hospitals to bridge language gaps appear to be only partially successful. Effective communication is paramount between during consultations healthcare professionals and patients due to the importance of verbal and non-verbal clues in cross-cultural exchange of information. Such initiatives may be doomed to fail as communication becomes less effective as time constraints increase. The presence of an interpreter, though often advocated as a panacea, may not improve effective information exchange as the three-way consultation between the patient, clinician and interpreter adds additional layers of cultural complexity. Moreover, interpretation may involve a degree of manipulation of which the doctor, for example, may be unaware.⁴⁰ One possibility would be to promote national initiatives. which equip individuals with those linguistic tools necessary to engage in meaningful and timely therapeutic consultations before coming into contact with services. One proposal would be, for example, to provide access to language courses as part of the coronary rehabilitation process for South Asians with language difficulties, thereby minimising delay in treatment associated with re-admission. Another, more universal option is advocating for English language course availability at the initiation of contact with a family physician or family practice.

Researchers have shown how it is possible to engage with South Asian groups by developing community-based health promotion initiatives.41-43 Such community and charity-based initiatives have attempted to improve the quality of service provision and equality of access among South Asian patients. There is evidence that communitybased approaches do impact on markers of disease risk, health behaviour and beliefs in target groups.42 However, the clinical efficacy of such approaches remains largely unproven. A targeted response to the higher South Asian CHD risk may serve to address the disparities in the provision of services for CHD prevention, but in the current climate of austerity, such measures may impose an added burden on health services requiring as they do, increased financial commitments. Furthermore, such a reversediscriminatory approach may be construed to

be counter-productive in promoting a sense of separate lives, separate communities and thus increased isolation.

Flanagan and Hancock argue that 'the voluntary and community sector has arguably been more successful in penetrating some of the barriers for the 'hard to reach' and has an important role to play in the understanding of service delivery provision.'⁴⁴

CONCLUSION

Although the UK Government appears committed to maximising best practice through infusing policy decisions with objective data derived, for example, from clinical trials, it is clear that much more needs to be done to maximise integration of services and access to those services. Community-based or voluntary and community sector initiatives may prove to be particularly efficacious. A review of the literature indicates

that initiatives to improve communication and raise the profile of services amongst marginalised communities has paid dividends in a series of small local victories⁴⁵ but more needs to be done at the national level.

As a now established minority group in the UK, measures have begun to be more sensitive to health problems experienced by South Asian patients. For example, South Asian specific body mass index (BMI) and waist measurement cut-offs are included in recent NICE Guidance.⁴⁶ This demonstrates that, over time, progress is made. However this is a small, comfort for more recent migrant populations such as the Yemeni, Eastern European, and Somali communities, each of whom may face similar struggles with the healthcare system.⁴³ Improved communication, a responsibility that is shared by both the doctor and the patient, may be a more efficient and effective way to provide equitable care to diverse and varied communities within Britain.

REFERENCES

1. Gill PS, Kai J, Bhopal RS, Wild S. Health care needs assessment: black and minority ethnic groups. In: Raftery J, ed. Health Care Needs Assessment: The Epidemiologically Based Needs Assessment Reviews, 3rd Series. Abingdon: Radcliffe Medical Press 2007.

2. Burns FM, Evans AR, Mercer CH et al. Sexual and HIV risk behaviour in central and eastern European migrants in London. Sex Transm Infect. 2011;87(4):318-24.

3. Evans AR, Parutis V, Hart G et al. The sexual attitudes and lifestyles of London's Eastern Europeans (SALLEE Project): design and methods. BMC Public Health. 2009;9:399.

4. Collinson S, Ward R.A nurse-led response to unmet needs of homeless migrants in inner. Br J Nurs. 2010;19(1):36-41.

5. Blackwell D, Holden K, Tregoning D. An interim report of health needs assessment of asylum seekers in Sunderland and North Tyneside. Public Health. 2002;116(4):221-6.

6. Calvin C, Moriarty H. A special type of 'hard-to-reach' patient: experiences of pregnant women on methadone. J Prim Health Care. 2010;2(1):61-9.

7. Parsons L, Day S. Improving obstetric outcomes in ethnic minorities: an evaluation of health advocacy in Hackney. J Public Health Med. 1992;14(2):183-91.

8. Worth A, Irshad T, Bhopal R et al.

Vulnerability and access to care for South Asian Sikh and Muslim patients with life limiting illness in Scotland: prospective longitudinal qualitative study. BMJ. 2009;338:b183.

9. Perry L, Kendrick D, Morris R et al. Completion and Return of Fall Diaries Varies With Participants' Level of Education, First Language, and Baseline Fall Risk. J Gerontol A Biol Sci Med Sci. 2012;67(2):210-4.

10. Sreeramareddy CT, Panduru KV, Menten J, et al. Time delays in diagnosis of pulmonary tuberculosis: a systematic review of literature. BMC Infect Dis. 2009;9:91.

11. Perera S, Mamode N. South Asian patients awaiting organ transplantation in the UK. Nephrol Dial Transplant. 2011;26(4):1380-4.

12. Bivins R. "The English disease" or "Asian rickets"? Medical responses to postcolonial immigration. Bull Hist Med. 2007;81(3):533-68.

13. Patel JV, Lim HS, Gunarathne A et al. Ethnic differences in myocardial infarction in patients with hypertension: effects of diabetes mellitus. QJM. 2008;101:231-6.

14. Patel JV, Dwivedi S, Hughes EA et al. Premature coronary artery disease: an inferred cardiovascular variant or a South Asian genetic disorder? Thromb Haemost. 2008;99:991-2.

15. Tunstall-Pedoe H, Clayton D, Morris

JN et al. Coronary heart-attacks in East London. Lancet. 1975;2(7940):833-8.

16. Harding S. Mortality of migrants from the Indian Subcontinent to England and Wales: effect of duration of residence. Epidemiology. 2003;14(3):287-92.

17. Patel JV, Vyas A, Prabhakaran D et al. Nonesterified fatty acids as mediators of glucose intolerance in Indian Asian populations. Diabetes Care. 2005;28(6):1505-7.

18. Burden AC, McNally PG, Feehally J et al. Increased incidence of end-stage renal failure secondary to diabetes mellitus in Asian ethnic groups in the United Kingdom. Diabet Med. 1992;9(7):641-5.

19. Stolk RP, van Schooneveld MJ, Cruickshank JK et al. Retinal vascular lesions in patients of Caucasian and Asian origin with type 2 diabetes: baseline results from the ADVANCE Retinal Measurements (AdRem) study. Diabetes Care. 2008;31(4):708-13.

20. Middelkoop BJ, Kesarlal-Sadhoeram SM, Ramsaransing GN et al. Diabetes mellitus among South Asian inhabitants of The Hague: high prevalence and an age-specific socioeconomic gradient. Int J Epidemiol. 1999;28(6):1119–23.

21. Chandie Shaw PK, Baboe F, van Es LA et al. South-Asian type 2 diabetic patients have higher incidence and faster progression of renal disease compared with Dutch-European diabetic patients.

Diabetes Care. 2006;29(6):1383-5.

22. Chaturvedi N, Rai H, Ben-Shlomo Y. Lay diagnosis and health-careseeking behaviour for chest pain in south Asians and Europeans. Lancet. 1997;350(9091):1578-83.

23. Kendall H, Marley A, Patel JV, et al. Hospital delay in South Asian patients with acute ST-elevation myocardial infarction in the UK. Eur J Prev Cardiol. 2013;20:737-42.

24. Karthikeyan G, Teo KK, Islam S, et al. Lipid profile, plasma apolipoproteins, and risk of a first myocardial infarction among Asians: an analysis from the INTERHEART Study. J Am Coll Cardiol. 2009;53(3):244-53.

25. Cruickshank JK, Beevers DG. Is blood pressure really worse in Black people? Lancet. 1980;2(8190):317-2.

26. Raleigh VS, Kiri V, Balarajan R. Variations in mortality from diabetes mellitus, hypertension and renal disease in England and Wales by country of birth. Health Trends. 1997;28:122–127.

27. Patel JV, Vyas A, Cruickshank JK et al. Impact of migration on coronary heart disease risk factors: comparison of Gujaratis in Britain and their contemporaries in villages of origin in India. Atherosclerosis. 2006;185(2):297-306.

28. Müller-Nordhorn J, Binting S, Roll S et al. An update on regional variation in cardiovascular mortality within Europe. Eur Heart J. 2008;29(10):1316-26.

29. Scarborough P, Bhatnagar P, Wickramasinghe K et al. Coronary heart disease statistics 2010 edition. British Heart Foundation: London, 2010.

30. NHS health check. http://www. healthcheck.nhs.uk (accessed 1/09/2011).31. Shaper AG. Cardiovascular disease in the tropics. IV. Coronary heart disease. BMJ. 1972;4(5831):32-5.

32. Bhopal R, Hayes L, White M et al. Ethnic and socio-economic inequalities in coronary heart disease, diabetes and risk factors in Europeans and South Asians. J Public Health Med. 2002;24(2):95-105.

33. National Institute for Health and Clinical Excellence. Lipid modification: cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease. London: NICE, 2008.

34. Ethrisk website. http://www.epi.bris.ac.uk/CVDethrisk/(accessed20/08/2012)

35. Penn C, Watermeyer J. When asides become central: small talk and big talk in interpreted health interactions. Patient Educ Couns. 2012;88:391-8.

36. Lobb R, Pinto AD, Lofters A. Using concept mapping in the knowledgeto-action process to compare stakeholder opinions on barriers to use of cancer screening among South Asians. Implement Sci. 2013;8:37.

37. Merrell J, Kinsella F, Murphy F et al. Accessibility and equity of health and social care services: exploring the views and experiences of Bangladeshi carers in South Wales, UK. Health Soc Care Community. 2006;14(3):197-205.

38. Gill P, Shankar A, Quirke T et al. Access to interpreting services in England: secondary analysis of national data. BMC Public Health. 2009;9:12.

39. Neal RD, Ali N, Atkin K et al. Communication between South Asian patients and GPs: comparative study using the Roter Interactional Analysis System. Br J Gen Pract. 2006;56(532):869-75.

40. Greenhalgh T, Robb N, Scambler G. Communicative and strategic action ininterpreted consultations in primary

health care: a Habermasian perspective. Soc Sci Med. 2006;63(5):1170-87.

41. Farooqi A, Bhavsar M. Project Dil: A co-ordinated primary care and community health promotion programme for reducing risk factors of CHD amongst the South Asian community of Leicester experiences and evaluation of the project. Ethnicity Health. 2001;6(3-4):265-70.

42. Mathews G, Alexander J, Rahemtulla T et al. Impact of a cardiovascular risk control project for South Asians (Kush Dil) on motivation, behaviour, obesity, blood pressure and lipids. J Public Health. 2007;29(4):388-97.

43. Patel JV, Gunarathne A, Lane D et al. Widening access to cardiovascular healthcare: community screening among ethnic minorities in inner-city Britain - the Healthy Hearts Project. BMC Health Serv Res. 2007;7:192.

44. Flanagan SM, Hancock B. 'Reaching the hard to reach' - lessons learned from the VCS (voluntary and community Sector): a qualitative study. Flanagan and Hancock. BMC Health Services Research. 2010;10:92.

45. Randhawa G. Promoting organ donation and transplantation among South Asians in the United Kingdom: the role of social networks in the South Asian community. Prog Transplant. 2005;15(3):286-90.

46. National Institute of Clinical Effectiveness. Assessing body mass index and waist circumference thresholds for intervening to prevent ill health and premature death among adults from black, Asian and other minority ethnic groups in the UK (PH46). http:// publications.nice.org.uk/assessing-body-mass-index-and-waist-circumference-thresholds-for-intervening-to-prevent-ill-health-ph46 (accessed 6/10/13).