ESRC End of Award Report

For awards ending on or after 1 November 2009

This End of Award Report should be completed and submitted using the grant reference as the email subject, to reportsofficer@esrc.ac.uk on or before the due date.

The final instalment of the grant will not be paid until an End of Award Report is completed in full and accepted by ESRC.

Grant holders whose End of Award Report is overdue or incomplete will not be eligible for further ESRC funding until the Report is accepted. We reserve the right to recover a sum of the expenditure incurred on the grant if the End of Award Report is overdue. (Please see Section 5 of the ESRC Research Funding Guide for details.)

Please refer to the Guidance notes when completing this End of Award Report.

<table>
<thead>
<tr>
<th>Grant Reference</th>
<th>RES-354-25-0002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant Title</td>
<td>Migration, nutrition and ageing across the lifecourse in Bangladeshi families: A transnational perspective</td>
</tr>
<tr>
<td>Grant Start Date</td>
<td>01.12.2008</td>
</tr>
<tr>
<td>Grant End Date</td>
<td>30.11.2011</td>
</tr>
<tr>
<td>Grant holding Institution</td>
<td>University of Bristol</td>
</tr>
<tr>
<td>Grant Holder</td>
<td>Professor Janice L. Thompson</td>
</tr>
<tr>
<td>Grant Holder's Contact Details</td>
<td>Address</td>
</tr>
<tr>
<td></td>
<td>Centre for Exercise, Nutrition &amp; Health School for Policy Studies 8 Priory Road Bristol BS8 1TZ</td>
</tr>
<tr>
<td></td>
<td>Telephone</td>
</tr>
<tr>
<td>Co-Investigators (as per project application):</td>
<td>Institution</td>
</tr>
<tr>
<td>Professor Joy Merrell</td>
<td>Swansea University</td>
</tr>
<tr>
<td>Professor Barry Bogin</td>
<td>Loughborough University</td>
</tr>
<tr>
<td>Professor Petra Meier</td>
<td>University of Sheffield</td>
</tr>
<tr>
<td>Dr Vanja Garaj</td>
<td>Brunel University</td>
</tr>
<tr>
<td>Dr Andrea Pieroni</td>
<td>University of Bradford</td>
</tr>
<tr>
<td>Professor Michael Heinrich</td>
<td>University of London School of Pharmacy</td>
</tr>
</tbody>
</table>
1. Non-technical summary

Nutrition plays a crucial role in the health status of the Bangladeshi population, one of the most socially disadvantaged groups in the UK. They have poorer self-reported and measured health status including higher rates of disability, centralised obesity and chronic diseases such as type 2 diabetes. Despite these disparities, there is limited understanding of how eating patterns and migration affect this group’s nutritional status and experiences of ageing. Project aims were to examine the roles of migration and nutrition on ageing and health across Bangladeshi older mothers and adult daughters living in Cardiff, UK and Bangladesh. Results indicated high rates of obesity in UK mothers and daughters, high intakes of salt in all women, lower than recommended intakes of fruit and vegetables both in the UK and Bangladesh, daily intakes of foods that are high in calories, fat, and sugar among UK daughters, and poor physical function among older mothers in the UK. There is a need for further culturally relevant nutrition advice and health promotion, disease prevention and public health campaigns for the Bangladeshi community, provided through a range of media. Planning and provision of health and social care services need to take into account the diverse needs of this ageing population. UK mothers are less socially and physically active than those in Bangladesh. As active ageing is paramount to promote and maintain healthy ageing, there is a critical need for equity of access to leisure and day facilities providing both physical and social activities for this population.

2. Project overview

a) Objectives

MINA aimed to investigate migration, nutrition and ageing using an intergenerational and transnational approach incorporating multidisciplinary methodologies. The intergenerational component included a sample of older women (45+ years old; n=40) who migrated from Bangladesh to the UK and younger adult women (18-35 years old; n=37) born to migrants in the UK or who immigrated to the UK as children. The transnational component included women (mothers, n=22 and daughters, n=22) of the same two age groups, who were interviewed and assessed in Bangladesh giving us a continuum to understand the influences of migration, nutrition and eating patterns on ageing. More specifically the project aims were to:

1. Explore the impact of migration on nutritional status, food practices and health among first generation Bangladeshi women aged 45 years and older.
2. Determine if and how migration affects nutritional status, food practices and health of the successive generation of women living in the UK.
3. Assess how migration affects changes in nutritional status, food practices and health compared with non-migrating women of the same ages in Bangladesh.
b) Project Changes

Please describe any changes made to the original aims and objectives, and confirm that these were agreed with us. Please also detail any changes to the grant holder’s institutional affiliation, project staffing or funding. [Max 200 words]

ESRC approved our request to delay the start date of MINA from 1 September 2008 to 1 December 2008. Prior to the start date of MINA, one of our six academic co-investigators (Dr. Andrea Pieroni, University of Bradford) withdrew from the MINA project (in October 2008) to take up an academic post in Italy. Following agreement with the ESRC, Professor Michael Heinrich (University of London School of Pharmacy) formally became a new co-investigator and acted as lead on the ethnobotany component of WP3. He is also serving as supervisor to the PhD student (Hannah Jennings) funded by the additional £47,520 studentship awarded to The School of Pharmacy. There have been no additional changes to the original award.

c) Methodology

Please describe the methodology that you employed in the project. Please also note any ethical issues that arose during the course of the work, the effects of this and any action taken. [Max 500 words]

Nutritional status, physical function, and bone health (UK participants only) were measured as follows: 1. Anthropometry was measured using standard equipment including height, weight, sitting height, knee height, circumference of upper arm, waist and hips, and skinfold thickness at triceps; 2. Physical function was assessed by a standardised battery of tests for leg muscle strength, walking speed, and standing balance; 3. Heel bone density was estimated using Quantitative Ultrasound (QUS). Food ethnobotanical knowledge and uses of traditional food plants, analysis of home-gardens/allotment gardens managed by Bangladeshi migrants in the UK and in Bangladesh, including frequency of botanical species, ecological analysis (i.e. management and organisation of food plants in the home-gardens, including analysis of the use of specific agricultural techniques), assessment of the social meaning of these for the community, and analysis of the “emic” perception of food plants and plant-based culinary preparations as traditional medicines were assessed using focus groups, open and semi-structured interviews, participant observation, collection of botanical species and seeds, and visual anthropological methods. Differences between the typical “food environments” of the Bangladeshi community in Cardiff and in Bangladesh were assessed using semi-structured interviews, participant observation and photoethnography. A semi-structured questionnaire (n=121) and in-depth qualitative interviews (n=54) were used to: 1. gather detailed accounts of migration and biographical experiences; 2. assess their impact on nutritional status, health behaviours and transmission of nutritional knowledge; 3. examine the influence of cultural beliefs on nutrition, health, and health seeking behaviours and how this has changed across the lifespan and between generations; 4. assess impact of social inequalities on nutrition and health status, changes in the roles, position and responsibilities of women in the household and the impact on their nutrition, the family unit and wider community; 5. explore perceptions and expectations of an older person in their community; and 6. determine the extent and nature of transnational ties and their influence on issues related to nutrition and ageing.
Some of the main findings from the project are:

- Rates of obesity are significantly higher in mothers (55%) and adult daughters (42.5%) living in Cardiff as compared to mothers (27.3%) and adult daughters (13.6%) living in Bangladesh.
- Physical function scores of Cardiff mothers are significantly lower than those of mothers living in Bangladesh which is a concern as they indicate high risk of frailty.
- The majority of women in Cardiff and Bangladesh consume <5 portions of fruit and vegetables per day; vegetables are more commonly consumed in Bangladesh, with fruit more commonly consumed in Cardiff.
- All participants add salt when cooking; Cardiff daughters consume energy dense, high fat and high sugar foods and snacks on a daily basis.
- Culturally appropriate health promotion and public health campaigns emphasising importance of prevention are critically needed, as women report changing lifestyle behaviours only in response to disease diagnosis.
- Bi-lingual written materials are needed, specifically English-Bengali side-by-side on the same page.
- Word of mouth and oral Sylheti are the preferred modes of communication (even by those highly fluent in English); health promotion materials are needed that incorporate spoken Sylheti.
- Health professionals are a key information source after disease diagnosis.
- Family members (children, siblings, parents) are main source of health-related, cooking, food/plant and nutrition information in both countries; they exert a strong influence on older women and their ability to make dietary changes.
- Family structures and migration patterns are changing, with daughters increasingly likely to care for ageing parents in the UK than eldest son/daughter-in-law.
- Men are now migrating from Bangladesh to marry women living in UK, limiting their potential to care for ageing parents in Bangladesh.
- Older women (particularly in the UK) may not have adult children or extended families who can care for them in old age due to global migration.
- Social connections most important motivator to get “out and about”; physical activity not a main motivator.
- Strong transnational ties are maintained evidenced by regular telephone contact and visits to Bangladesh.
- Older mothers in Cardiff feel like a burden, some are socially isolated, and many are uncertain how their future health and social care needs will be met; older mothers in Bangladesh report having substantially more social interaction and are hopeful concerning their future care.
- Daughters living in Cardiff report considerable personal freedoms, educational and employment opportunities and are seen as an asset, in contrast to daughters in Bangladesh.
- Equity of access to leisure facilities in Wales remains a major barrier to being active.

Future research plans include: 1) submission of a grant to the ESRC for follow-on funding to...
optimise impact; 2) submission of MINA data to research conferences and peer-reviewed scientific journals; and 3) extension MINA findings into physical activity measurement and intervention development and bone health via PhD students at Bristol (Whitney Babakus) and Loughborough Universities (Diane Harper).

e) Contributions to wider ESRC initiatives (eg Research Programmes or Networks)
If your project was part of a wider ESRC initiative, please describe your contributions to the initiative’s objectives and activities and note any effect on your project resulting from participation. [Max. 200 words]

Project MINA is funded by the New Dynamics of Ageing (NDA) cross-council programme. The MINA team has fully engaged with all NDA activities and Programme Meetings. Attendance at the Programme Meetings have expanded networking, engagement and dissemination with other NDA investigators which has led to invitations to present at workshops and seminars. Attendance at the April 2010 NDA programme meeting resulted in a subsequent meeting with Laurence Horton from the UK Data Archive (UKDA) to discuss the MINA Data Map for Health Information Amongst Bangladeshis from the UKDA (http://www.bris.ac.uk/mina/reports/). MINA researchers developed this search tool to assist researchers in accessing existing secondary datasets that include health information on Bangladeshis. UKDA published a press release on their webpage highlighting the MINA Data Map (http://www.data-archive.ac.uk/news-events/news.aspx?id=2869). This interaction further led to MINA being featured as a case study in the Archive’s Data Management Planning for ESRC Centres and Programmes (http://www.data-archive.ac.uk/media/257765/ukda_datamanagementrecommendations_centresprogrammes.pdf). The MINA team also submitted a symposium that was accepted for presentation at the Gerontological Society of America Annual Scientific Meeting 2011 in Boston, USA in collaboration with the NDA and two projects that were funded along with MINA via the New Dynamics of Nutrition Sandpit (http://www.geron.org/annual-meeting/2011-annual-scientific-meeting/program-book).
3. Early and anticipated impacts

a) Summary of Impacts to date

Please summarise any impacts of the project to date, referring where appropriate to associated outputs recorded on the Research Outcomes System (ROS). This should include both scientific impacts (relevant to the academic community) and economic and societal impacts (relevant to broader society). The impact can be relevant to any organisation, community or individual. [Max. 400 words]

All outputs referred to here have been recorded on the ROS. To date the team has submitted abstracts and presented MINA data at 18 scientific meetings, has been invited speakers at 9 research-related events and 5 community events, and has organised and delivered two dissemination events (a community event at the Cardiff Story Museum and a policy event at Senedd, National Assembly for Wales) which included 4 presentations of MINA data to a range of audiences including Bangladeshi community members and study participants, health and social care practitioners, and policy makers, with Ruth Marks (the Older People’s Commissioner for Wales) giving a keynote presentation. The dissemination event targeted at Welsh Assembly Government Policy Makers has resulted in an invitation for the MINA team to meet with Jane Hutt, Minister for Finance and Leader of the House (date of meeting currently being negotiated). Additionally, the team has delivered two photo exhibitions (at The Cardiff Story Museum/Senedd 15 Nov-15 Dec 2011; Stepney City Farm, London 17 Dec 2011-31 Mar 2012). A presentation given at the Conference of the IUAES/AAS/ASAANZ in July 2011 has resulted in the submission of a book chapter for publication (Jennings H, Heinrich M, Thompson JL. Bengali-British food journeys: exploring the movement of food and plants across transnational landscapes. In Food, Globalization and Human Diversity. Berg, in press). The Cardiff photo exhibit has resulted in one publication to date (V. Garaj. “Wales and Bangladesh, a photo essay”. Planet – The International Magazine for Wales, February 2012).

Additionally the project employed one Bangladeshi research assistant (Jasmin Chowdhury), one Bangladeshi post-doctoral fellow (Dr Bablin Molik), and employed and trained 11 Bangladeshi community researchers from the Cardiff and Swansea areas. There are two MINA websites: 1) a more academically focused website maintained via University of Bristol (http://www.bris.ac.uk/mina/); and 2) a recently developed website that is currently being updated with project information, results, photos and ethnographic stories written for a non-academic audience (http://projectmina.org/).
b) Anticipated/Potential Future Impacts

Please outline any anticipated or potential impacts (scientific or economic and societal) that you believe your project might have in future. [Max. 200 words]

Two abstracts have recently been presented (oral and Plenary session) at the International Society for Ethnopharmacology Annual Meeting, 17-19 February at Jadavpur University, Kolkata, India. Abstracts have also been submitted to the British Society of Gerontology Annual Meeting, 11-13 July at Keele University and the National Osteoporosis Society, Osteoporosis and Bone Conference, 1-4 July, Manchester.

Team members have worked together with the Bangladeshi Social Association of Charnwood Borough to secure Staying Healthy funding (£950) for a MINA dissemination event in Loughborough 15 March 2012. Matching funds (£1000) have been secured from the NDA to provide additional support for this event, which will involve interacting with local community groups and NHS PCT stakeholders in an effort to expand the impact of MINA into England.

In addition to submitting preparing manuscripts for publication in peer-reviewed journals, team members will lead on writing chapters for the New Science of Ageing (NDA Book Series) and Evolution and Health Over the Lifecourse (Springer Publishing).

Two confirmed invitations in 2012 to present MINA findings to non-academic audiences include: 1) Bangladeshi Reference Group, 41st Anniversary of Bangladeshi Independence, Cardiff, 25 March; and 2) BrunelCare/Age Concern Bristol Research Forum, 23 May.

You will be asked to complete an ESRC Impact Report 12 months after the end date of your award. The Impact Report will ask for details of any impacts that have arisen since the completion of the End of Award Report.
4. Declarations

Please ensure that sections A, B and C below are completed and signed by the appropriate individuals. The End of Award Report will not be accepted unless all sections are signed. Please note hard copies are not required; electronic signatures are accepted and should be used.

A: To be completed by Grant Holder

Please read the following statements. Tick one statement under ii) and iii), then sign with an electronic signature at the end of the section (this should be an image of your actual signature).

i) The Project

This Report is an accurate overview of the project, its findings and impacts. All co-investigators named in the proposal to ESRC or appointed subsequently have seen and approved the Report. X


ii) Submissions to the Research Outcomes System (ROS)

Output and impact information has been submitted to the Research Outcomes System. Details of any future outputs and impacts will be submitted as soon as they become available. X

or

This grant has not yet produced any outputs or impacts. Details of any future outputs and impacts will be submitted to the Research Outcomes System as soon as they become available.


iii) Submission of Datasets

Datasets arising from this grant have been offered for deposit with the Economic and Social Data Service. X

or

Datasets that were anticipated in the grant proposal have not been produced and the Economic and Social Data Service has been notified.

or

No datasets were proposed or produced from this grant.