

<b>Institution: University of Nottingham</b>
<b>Unit of Assessment: 29</b>
<b>Title of case study: Raising Awareness of Adolescent Health Communication</b>
<p><b>1. Summary of the impact</b></p> <p>Research on the language of teenage health communication by staff from the School of English at the University of Nottingham has:</p> <ul style="list-style-type: none"> <li>• <b>Raised health professionals’ awareness and understanding</b> of the language used by teenagers to discuss sensitive issues and <b>helped to normalise</b> adolescent health concerns</li> <li>• <b>Helped to inform</b> (local and national) government strategy for young people, and health education materials for children and their parents</li> <li>• <b>Influenced changes in health practice</b> through aiding the continuous professional development of healthcare professionals</li> </ul>
<p><b>2. Underpinning research</b></p> <p>In 2002 the Health Language Research Group, an interdisciplinary sub-group of the Centre for Research in Applied Linguistics (CRAL), was established within the UoA and research partnerships with the NHS developed, involving Ronald Carter, Professor of Modern English Language (2003-present), Svenja Adolphs, Professor of English Language and Linguistics (2003-present), and Dr Louise Mullany, Associate Professor in Sociolinguistics (2004-present) from this UoA. Drawing on research methods in corpus linguistics and discourse analysis has allowed the research team to extract and analyse key words, phrases and topics from large databases of recorded clinical interactions. The research was designed to enhance practitioner-patient communication in the NHS (3.1).</p> <p>In 2003 Adolphs, Carter and Mullany, in response to a lack of applied linguistic research into adolescent health, along with demands from practitioners to know more about young people’s perspectives of health and illness, began researching adolescent health e-communication. The researchers worked in collaboration with health professionals and established long-term links with the NHS paediatricians and GPs Dr Aidan MacFarlane and Dr Ann McPherson, co-founders of the <i>Teenage Health Freak</i> (THF) website (&lt;<a href="http://www.teenagehealthfreak.org">www.teenagehealthfreak.org</a>&gt;) an evidence-based health resource that provides bespoke professional (GP-authored) advice and information to young people. CRAL researchers were given access to a substantial specialised dataset, a collection of over 110,000 adolescent advice-seeking emails submitted to the website. This led to the development of a corpus of health advice request data, which stands at over 2 million words.</p> <p>The CRAL team was joined by Dr Kevin Harvey, Lecturer in Sociolinguistics, (2008-present). Dr Harvey’s corpus linguistic and discourse research on the database of the THF emails (3.2, 3.3, 3.4, and 3.5) specifically examined the mental and sexual health concerns of advice-seeking adolescents. In analysing the personal perspectives of young people, the research identified and explicated the linguistic routines through which young people communicate and seek to make sense of their problems, highlighting and validating these concerns and allowing practitioners to learn more about adolescents’ unique health advice-seeking repertoires.</p> <p>In an ESRC-funded study (2010) (Research Grant 1), Adolphs (PI) and Mullany (Co-I) integrated corpus linguistic and sociolinguistic approaches to further analyse THF advice request messages. The corpus-based approach constitutes a rigorous methodology that revealed a series of patterns based on frequency from 113,000 young people’s accounts of a wide range of health concerns. The findings have been computationally benchmarked against CRAL’s multi-million word general English holdings. The analysis highlighted five main topics and identified key linguistic patterns used to articulate concerns according to age and gender. Key identifiable categories where adolescent health advice is requested are: sex, pregnancy and relationships; body parts; body changes; weight and eating (including eating disorders and body image); and smoking, drugs and alcohol.</p> <p>Using analytical innovations based on corpus linguistics, such as keyword analysis, the most frequently identified language patterns that adolescents use were drawn upon to inform health policy and promotion strategies. The findings were brought together in an accessible, comprehensive electronic encyclopedia for a broad audience of end users (3.5). In addition, the researchers co-developed a bespoke booklet containing key research findings with non-academic end users in the health practice and policy domain. The booklet, funded through an internal HEIF award, ‘Am I Normal? What adolescents want to know about health’ (3.6) is designed for healthcare providers and users. Both of these resources have dual status for the purpose of this</p>

## Impact case study (REF3b)

case study, as both research outputs and as elements of the impact narrative (section 4).

The corpus analysis of frequently asked questions by teenagers has also featured in ongoing collaborative research with *Medikidz* ([www.medikidz.com](http://www.medikidz.com)), which has recently attracted £42K from the RCUK funded Horizon Digital Economy Research Institute. *Medikidz* is a London-based medium-sized enterprise which designs and produces evidence-based health educational materials for children and teenagers in the form of accessible comics and narratives.

### 3. References to the research

#### Publications

1. Adolphs, S., Brown, B., Carter, R., Crawford, P., and Sahota, O. (2004) 'Applied clinical linguistics: corpus linguistics in health care settings'. *Journal of Applied Linguistics*, 1: 9–28. Equinox. <http://www.brown.uk.com/publications/adolphs.pdf>
2. Harvey, K. (2012) 'Disclosures of depression: using corpus linguistics methods to interrogate young people's online health concerns'. *International Journal of Corpus Linguistics*, 17: 349-379. DOI: 10.1075/ijcl.17.3.03har
3. Harvey, K. (2013) *Adolescent Health Communication: A Corpus Linguistics Approach*. London: Continuum. ISBN: 9781441136886 Listed in REF2.
4. Harvey, K. and Brown, B., (2012) 'Health communication and psychological distress: exploring the language of self-harm'. *Canadian Modern Language Review*, 68: 316-340. Available on request.
5. Adolphs, S., Mullany, L., Smith, C. and Harvey, K. (2011) *Health Communication and the Internet: Teenage Health Freak Encyclopedia*. URL: <http://www.nottingham.ac.uk/cral/projects/thfencyclopedia.aspx> Listed in REF2
6. Adolphs, S., Mullany, L., Smith, C. and Harvey, K. "Am I Normal?" What adolescents want to know about health' University of Nottingham. URL: [www.nottingham.ac.uk/cral/documents/adolescent-health-communication-booklet.pdf](http://www.nottingham.ac.uk/cral/documents/adolescent-health-communication-booklet.pdf)

*The quality of the research described above is indicated by the strength of the publishers of items 1, 2, 3, 4. The material presented in the Encyclopedia and 'Am I Normal?' booklet draws extensively on these published items.*

#### Research Grants

(Grant 1) Professor S. Adolphs, Dr. L. Mullany, *Health Communication and the Internet: An Analysis of Adolescent Language Use on the Teenage Health Freak Website*. ESRC. Grant No: RES-000-22-3448. 2010-11. £76K.

### 4. Details of the impact

**Helping to normalise young people's health concerns by raising healthcare professionals' understanding of the language used by adolescents** The main impact of the unit's adolescent health communication research relates to the provision of new evidence-based knowledge to a range of health professional audiences, knowledge which has enhanced their capacity to consult more effectively and confidently with adolescent patients. Two new resources have provided GPs with new research-based knowledge and insight into how to raise health issues proactively with young people and to normalise their health problems, potentially lessening the stigma associated with seeking health advice. The online *Teenage Health Freak Encyclopedia* (3.5) and the bespoke booklet *Am I Normal?* (3.6) were developed in order to address the perceived communication barriers between medical professionals and adolescents in clinical settings (as commonly identified by NHS practitioners working with adolescents, as well as young people themselves). The encyclopedia, written by Adolphs, Mullany, Smith and Harvey, provides insight into a comprehensive (A-Z) range of recurring health concerns experienced by young people. In order to make the contents of the encyclopedia accessible to a wide audience, the researchers produced the '*Am I Normal?*' booklet, a succinct, reader-friendly document providing health professionals with access to adolescents' most frequent health questions, as well as providing evidence of the actual language young people use to articulate their health concerns (3.6). GPs who have read the material feel that it has given them new knowledge and insight. Comments attest to the value of the booklet as a means of helping to engender discussions between health professionals and their adolescent patients. The Vice Chair of the Royal College of General Practitioners' Adolescent Health Group comments: "The booklet describes well the subjects and issues that are important to young people and will give GPs the confidence to start conversations about these topics." (5.1) Another GP specialising in adolescent health concurs: "General practitioners often perceive young

people as a healthy population with no significant worries. However this booklet provides invaluable insights into some of the 'hidden' health concerns of teenagers....GPs will be able to read it in a few minutes and will find it much easier to open conversations with their teenage patients about possible 'hidden agendas' within the consultation." Another GP comments on the booklet thus, "It highlights the importance of not assuming any prior knowledge when dealing with young people, even that of the basic anatomy." Others comment that the resources provide practical insights to help them in their clinical practice: "Don't assume that teenagers know what certain words mean.", "Raise issues proactively with teenagers; normalise their concerns." (5.2) In addition to the booklet being shared with 1,300 general practitioners, the resource has been circulated to the members of the Association for Young People's Health (AYPH), an organisation comprising over 300 health professionals and researchers working to improve young people's health and well-being. AYPH's Research Lead and editor of the *Journal of Adolescence* observes that, "The systematic approach draws on a significant number of emails, and can reveal quite surprising results, such as the top smoking question being 'How do I stop?', which might not be what most people would have anticipated. Because of the systematic approach, the reader has confidence that these results provide a firm basis to go on and ask other questions." (5.3)

**Influencing outcomes for young people by contributing to (local and national) government strategy discussions/ documents, and informing health information materials** In July 2011, the Joint Health Scrutiny Committee operated by Nottingham City Council and Nottinghamshire County Council sought information from the research team regarding young people's communication of eating disorders and body image issues as part of its drive to better understand the potential links between public health messages and young people's eating disorders. The research findings from the adolescent health corpus which emphasised the negative impact of unrealistic body images on young people's health were incorporated into a specially commissioned report produced by the Joint Health Scrutiny Committee (5.4): *Joint Health: Health Messages and Eating Disorders*, which forms part of '*The Nottingham City Healthy Weight Strategy 2011-2020*' for Nottingham city and county schools. According to the Democratic Services Officer, who co-ordinated the Scrutiny Committee project, the CRAL research "offered evidence that young people experience considerable pressure to reduce their bodyweight to match a fashionable ideal via cultural influences e.g. fashion models. The research highlighted the importance of young people's language and personal perspectives when considering eating disorders, and the committee found the information to be useful and informative, highlighting subtle communicative issues which might not be self-evident. Dr Harvey's summary of the research was attached to the final version of the committee's report as an appendix. One of the report's recommendations is for schools to develop special sessions on body image to counteract unrealistic body image portrayals in the media - a recommendation which is to be promoted to schools". (5.5)

The Child Health Strategy Lead for the East Midlands Strategic Health Authority has submitted the Teenage Health Freak booklet as evidence to the Government's Children & Young People's Outcomes Strategy (July 2012), overseen by the Secretary of State for Health. This strategy informed health reform policy work during 2012-13. (5.6)

The unit has begun collaborating closely with *Medikidz* (see section 2 p.2) to deliver a change to its product. Research undertaken by CRAL based on the corpus analysis of health emails that underpins the '*Am I Normal?*' booklet (3.5) is currently being embedded into *Medikidz* publications. One of the founders of the company says: "The research into the most frequently asked questions in the *Teenage Health Freak* database carried out by Professor Svenja Adolphs and her team is of significant value to us. It has allowed us to shape the content of our comics in a way that is most relevant to the concerns of young people. Our close collaboration with this research team has thus enabled an exciting new way of integrating the voice of young people into our product." (5.7) Over the past 12 months, the collaboration with *Medikidz* has focused on aspects of design and conceptualisation of a new type of comic the content of which will be driven by the research results outlined above. In the next REF period, these material changes to *Medikidz* product will translate into tangible impacts on its user community: The company currently distributes over 2,000,000 comic books in 45 languages, from Bulgarian to Zulu, with books available in 42 countries worldwide.

**Contributing to enhanced practitioner-patient communication through CPD of Healthcare Professionals**

Research data and findings (3.1-3.6) shared with practitioners through conferences, symposia and other CPD events have contributed to increased knowledge, changes in perception and in some cases, concrete changes in clinical practice. The three examples below are indicative of the type of impacts delivered by CRAL's CPD work based on research in the field of adolescent health communication :

- A senior Health Visitor who attended the Unite/Community Practitioners and Health Visitors Association Annual Professional Conference, '*The Future of Public Health Nursing, Best Practice in Home, School and Community*' (7th-8th November 2012, Brighton, UK), felt that the research findings shared by Harvey "challenged my perceptions about anorexia and eating disorders and I certainly learnt a lot of new knowledge from attending the presentation. Indeed I have used the knowledge gained to enhance my clinical practice in these difficult and sensitive areas of health (particularly my increased awareness of young people's language and their personal perspectives) and I intend to disseminate these practically relevant linguistic insights to my health visitor colleagues." This major national conference brought together national policy-makers with 400 health practitioners (health visitors, nurses, school nurses) with the aim of shaping the future of public nursing. Highlighting the importance of paying close attention to young people's patterns of communication, the research drew attention to linguistic issues with which practitioners were likely to be unfamiliar (as described in detail in item 3.3). (5.8)
- A 'Managing Child & Adolescent Mental Health in Primary Care' Symposium, (Harvey, Imperial College, London, 26 March 2009) brought together paediatric psychiatrists and general practitioners and clinical psychologists. The research presented at the event (3.2/3.3) helped to enable frontline practitioners to reflect on their own psychiatric practice, drawing attention to communicative issues which routine institutional demands are likely to marginalise or efface altogether. A Consultant Child & Adolescent Psychiatrist commented: "This communication-based research is vital for raising the awareness of the importance of the link between language and adolescent mental health. I suspect that we, as a profession, may have over-medicalised childhood as there is a pressure on Psychiatry to become more focused on diagnoses and reporting outcomes of interventions for particular diagnoses. There is the risk of medicalising normal childhood by professionals unless we are cautious about the language we use and how we deal with the language we hear from young people about their difficulties." (5.8)
- Research focusing on adolescent eating disorders, weight and body image concerns (3.5/3.6) was presented to over 200 East Midlands-based school nurses at the East Midlands Strategic Health Authority School Nurses Meeting (18 January 2012). This was prompted by interest from the nursing community in increasing their efficiency in the light of funding cuts to the school nurses programme: Access to the top 50 questions that young people ask about health and body image helps them to better predict the concerns that young people might raise with them. A Locality Manager of Children's Services who attended the event remarked: "The research findings were not only thought provoking but also identified a way of responding to young people's needs through their communications. This research will help health practitioners like myself working with young people, especially in relation to sensitive health problems such as eating disorders and body image which are difficult to broach with young people." (5.8)

**5. Sources to corroborate the impact**

1. Vice Chair of the RCGP Adolescent Health Group (factual statement)
2. Feedback document containing GP responses to 'Am I Normal?' booklet (available as pdf)
3. Research Lead for the Association for Young People's Health (factual statement)
4. *Joint Health: Health Messages and Eating Disorders* (February 2012) Report (available as pdf)
5. Democratic Services Officer, Nottinghamshire County Council (factual statement)
6. Maternity and Children Strategic Clinical Network Manager and Lead Nurse at NHS England, submitting evidence to *Children & Young People's Outcomes Strategy* (July 2012)  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/214928/9328-TSO-2900598-DH-SystemWideResponse.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214928/9328-TSO-2900598-DH-SystemWideResponse.pdf)
7. Deputy CEO and Co-Founder of *Medikidz* (factual statement)
8. Feedback document containing health professionals' responses to CPD events