

Impact case study (REF3b)

<p>Institution: Cardiff University</p>
<p>Unit of Assessment: A2</p>
<p>Title of case study: Motivational interviewing in health care - worldwide uptake</p>
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Research carried out at Cardiff University refined an addiction counselling method, <i>motivational interviewing</i>, co-founded previously by Rollnick, to improve the consultation for changing health behaviour (e.g. diet, exercise, smoking and drinking). Their published findings and resulting method are now used in health care worldwide, with good evidence for effectiveness. The impact of this work has been described as ‘<i>immeasurable</i>’ and is reflected in industry guidelines and policy documents, and diverse clinical efforts that include the treatment of children with HIV-AIDS in Africa.</p>
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>The research question</p> <p>Research on the best way to encourage patients to change their lifestyle or medication use has a long history, with mixed results. People don’t respond uniformly well to being advised to change. This challenge is even more marked in specialist addiction treatment, where a counselling method was developed with a different goal - to avoid direct persuasion and elicit peoples’ own motivation to change.</p> <p>Rollnick was the co-founder of this specialist method, <i>Motivational Interviewing</i> (MI), defined as a counselling style for helping people resolve ambivalence about behaviour change. In 1993, Rollnick (Research Fellow [1993] - current Professor [2013]) and Stott (Professor [1993] – current retired [2013]) considered this question for a programme of research: <i>Can MI be simplified for everyday practice in hospitals and clinics, in which patients clarify for themselves why and how they might change their behaviour?</i></p> <p>20 years of research</p> <p>Butler (1993, Clinical Fellow – current Professor) joined the team, and for the first time, a careful study of the consultation on health behaviour change emerged. All research was conceived and executed in the Cardiff University's School of Medicine Cochrane Institute of Primary Care and Public Health (CIPCPH).</p> <p>There followed 20 years of research on specific brief consultation strategies:</p> <ul style="list-style-type: none"> • “<i>Pros & Cons</i>” The patient describes the benefits and drawbacks of change • “<i>Importance & Confidence</i>” Specific questions to address the “why” and “how” of change • “<i>Elicit-Provide-Elicit</i>” A new framework for exchanging information with patients • “<i>Agenda-setting</i>” A method for deciding with patients which behaviour change to focus on <p>These strategies were developed, tested, and published in papers and textbooks for clinicians.</p> <p>Smoking & lifestyle change</p> <p>Butler & Rollnick (mid-1990s) conceived the “<i>importance & confidence</i>” strategy in experimental consultations with smokers [3.1]. Its use by GPs achieved significantly better outcomes when compared to advice-giving [3.2]. It was integrated into a larger counselling method, along with “<i>pros and cons</i>” and the “<i>elicit-provide-elicit</i>” strategy, published in two textbooks for clinicians, and then evaluated in a MRC-funded, multi-site trial of effectiveness for promoting lifestyle change</p>

[3.3].

Diabetes: Agenda-setting & multiple-behaviour consultations

In 1993 **Rollnick, Stott** & colleagues used a MRC grant to develop and evaluate “agenda-setting” in adults with poorly controlled diabetes [3.4]. This strategy for deciding what behaviour change to focus on was then applied to children with Type 1 diabetes: **Gregory** (2002, Reader- current Professor), **Rollnick, Channon** (2002 Consultant Clinical Psychologist – current, the same) & **Robling** (2003 Research Fellow – current Reader) began with a pilot and successful trial of MI delivered by a psychologist [3.5]; they then worked with parents and children to develop a child-friendly visual agenda-setting chart and evaluated its use by doctors and nurses in a multi-site controlled trial across UK services [3.6].

Integrating the research

This research on brief strategies for helping patients with behaviour change was not only reported in journals, but integrated into the first (and only) two MI healthcare textbooks for clinicians, and two subsequent editions of the parent text of the broader MI method (2002 & 2012).

3. References to the research (indicative maximum of six references)

1. **Rollnick S, Butler C, Stott N**, (1997) Helping smokers make decisions: The enhancement of brief intervention for general medical practice. *Pt Educ Couns* 31: 191-203.
[http://dx.doi.org/10.1016/S0738-3991\(97\)01004-5](http://dx.doi.org/10.1016/S0738-3991(97)01004-5)
2. **Butler C, Rollnick S, Cohen D**, Russell I, Bachmann M, **Stott N**. (1999) Motivational consulting versus brief advice for smokers in general practice: A randomized trial. *Brit J Gen Pract* ;49:611-616.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1316198/pdf/brjgenprac004944500611.pdf>
3. **Butler C, Simpson SA, Hood K, Cohen D, Pickles T, Spanou C**, McCambridge J, **Moore L, Randell E**, Alam FM, **Kinnersley P, Edwards A**, Smith C, **Rollnick S**. Training practitioners to deliver opportunistic multiple behaviour change counselling in primary care (MRC/NPRI Pre-Empt): a cluster randomized trial. *BMJ* 2013;346:f1191 (Published 19 March 2013).
<http://dx.doi.org/10.1136/bmj.f1191>
4. **Pill R, Stott N, Rollnick S**, Rees M. (1998) A randomized controlled trial of an intervention to improve the care given in general practice to Type II diabetic patients: patient outcomes and professional ability to change behaviour. *Fam Pract* 15: 229-235. DOI: [10.1093/fampra/15.3.229](https://doi.org/10.1093/fampra/15.3.229)
<http://fampra.oxfordjournals.org/content/15/3/229.long>
5. **Channon S**, Huws-Thomas M, **Rollnick S, Hood K, Cannings-John R**, Rogers C, **Gregory J** A Multi-Centre Randomised Controlled Trial Of Motivational Interviewing In Teenagers With Diabetes. *Diabetes Care* 2007; 30:1390-1395. DOI: [10.2337/dc06-2260](https://doi.org/10.2337/dc06-2260)
<http://care.diabetesjournals.org/content/30/6/1390.long>
6. **Robling M, McNamara R**, Bennert K, **Butler C, Channon S**, Cohen D, Crowne L, Hambly H, **Hawthorne C, Hood K**, Longo M, **Pickles T, Playle R, Rollnick S, Thomas-Jones E, Gregory J**. The effect of the Talking Diabetes consulting skills intervention on glycaemic control and quality of life in children with type 1 diabetes: cluster randomised controlled trial (DEPICTED study). *BMJ* 2012; 344, e2359. DOI: [10.1136/bmj.e2359](https://doi.org/10.1136/bmj.e2359)
<http://www.bmj.com/content/344/bmj.e2359>

Research funding:

[Preventing disease through opportunistic, rapid engagement by primary care teams using behaviour change counselling \(PRE-EMPT\)](#). **C Butler, S Simpson, K Hood, S Rollnick**. £846,667, MRC. Sep 2006 – Sep 2010.

4. Details of the impact (indicative maximum 750 words)

Between 2008 and December 2012, *Motivational Interviewing in Health Care* by **Rollnick**, Miller & **Butler** sold 71,748 copies and was translated into 11 languages, prompting the senior commissioning editor at Guilford Press to note: “*Rollnick & Butler’s Cardiff research provided the fuel for a book that has surpassed all expectations. It continues to find avid readers from across medicine and related professions, and has established itself as the primary source for teachers and practitioners wanting to learn about the application of MI in different health care settings.*” [5.2]

Specific strategies developed in Cardiff have also been integrated into the 2nd & 3rd editions of the standard Miller/**Rollnick** text on motivational interviewing [5.1]. Between 2008 and December 2012, these texts sold 77,028 copies and have been translated into over 25 languages [5.2].

The impact of the above Cardiff research on clinical strategies is very diverse and widely disseminated worldwide, embracing guidelines and policy documents in many countries and continents. The following examples have been selected because they provide precise links between Cardiff research and impact.

Example 1: AETNA Health Insurance Organisation: Prof. K. Resnicow (Michigan, USA, 2010) used Cardiff health care textbooks, and the agenda-setting and importance-confidence strategies within them, in the training of trainers within AETNA, a company with over 36 million members. The focus was on behaviour change among members with a chronic disease. Between 2010 and September 2012, 83+ trainers in health care MI were trained, along with 2,210 clinical staff worldwide, with a reported 43% increase in engagement in the disease management programme and a 55% decrease in drop-outs [5.3]. Professor Resnicow notes, “*The impact of Rollnick and Butler’s seminal research in Cardiff goes beyond the private sector and is all but immeasurable. Leading US government and professional bodies, e.g. the American Medical Association, the American Academy of Pediatrics, and the US Preventive Task Force, have adopted healthcare MI for the prevention and management of chronic disease*” [5.4].

Example 2: Emergency & Public Health Medicine in USA: Healthcare strategies evaluated in Cardiff (“*pros and cons*”, “*elicit-provide-elicit*”) for very brief emergency room consultations with alcohol and drug problems were used in 1994 by Bernstein (Boston, USA) and **Rollnick** to develop a 3-5 minute intervention, *Brief Negotiation Interview* (BNI) [5.5]. Bernstein established effectiveness in numerous randomised trials, and set up a *BNI ART Institute*. Since 2008 they have trained 1525 clinicians across North and Central America. Data obtained by Bernstein from the small Boston-based cohort of 52/1525 clinicians (only 3.4% of the total), reveal that *in 2011 alone*, BNI was used with 5,158 patients. For the longer period 2008-2012, Bernstein estimates that these 52 clinicians saw a total of 44,983 patients, all of whom received BNI, a method of proven effectiveness. The programme has been endorsed by the National Registry of Evidence-based Programs [5.6]. Bernstein notes, “*Rollnick’s research on brief MI has had a direct and measurable impact on the delivery of brief intervention in emergency room settings in North America from Bethel Alaska to Bayamon Puerto Rico to Yale New Haven and Boston Medical Centers. The benefit to patients emerged from our numerous controlled trials. Implementation of this respectful and effective intervention now extends way beyond the boundaries of our work here in Boston to many scores of thousands of patients across the USA and in other countries.*” [5.7]

Example 3: Swedish Quitlines for tobacco and alcohol: Dr Astri Brandell Eklund and colleagues, used a health care text and the strategies of “agenda-setting” and “importance and confidence” in the training of staff of these two national telephone services. Between January 2008 and June 2012 counselling contact was made with 8,066 people on the alcohol line, and 17,407 on the smoking line, with a reported quit rate of 36% for the latter [5.8].

Example 4 – UK Family Nurse Partnership Programme [5.9]: The founder of this intensive home-visiting programme for pregnant teens in deprived settings bought 2,500 copies of the Rollnick/Miller/Butler *Motivational Interviewing in Health Care* book for distribution among its home visiting nurses tackling a wide range of behavioural issues (alcohol; drugs; safe sex). Rollnick was contracted to provide training and support to the UK rollout of this programme. Since 2008, the strategies developed in Cardiff have been integrated into the training and supervision of 1000+ nurses who have delivered the programme to 9,207 families up to the end of 2012.

Example 5: African low resource settings [5.10] Paediatric Aids Treatment in Africa (PATA – www.teampata.org) brings together HIV-AIDS treatment teams for training from across the Continent. It covers over 30% of children in treatment in Africa. Rollnick was a founding member and currently a Director, and since 2008, he has integrated health care MI for medication adherence into training provided in Mbabane, Swaziland (40 teams, 20 countries), Kigali, Rwanda (40 teams), Gaborone, Botswana (41 teams; 18 countries; 65,142 children in treatment), Cape Town (South Africa; 20 teams; 10 countries) [5.10].

5. Sources to corroborate the impact (maximum of 10 references)

1. Miller W, Rollnick S. (2012) Motivational Interviewing: Helping People Change. 3rd Edition. New York: Guilford Press. ISBN-13: 978-1609182274. Corroborates the integration of specific strategies developed in Cardiff (see pages 105-116, 139-145). [Hard copy available from HEI upon request].
2. Individual corroboration from Senior Commissioning Editor of Guildford Press on the importance and success of the text book as the primary source for teachers and practitioners wanting to learn about the application of the research in different health care settings. Can also confirm sales figures for the books.
3. AETNA news release: 'Aetna Members More Motivated to Make Healthy Changes', 15 Feb 2012: <http://www.aetna.com/news/newsReleases/2012/0215-Aetna-Members-More-Motivated.html> [saved as a pdf on 24.07.2013 and available on request from HEI]. Confirms the integration of motivational interviewing into AETNA's Care Management Disease Management programs, and numbers of clinicians and support staff who have received training in MI.
4. Individual corroboration from Professor of Health Behavior & Health Education, School of Public Health, University of Michigan who worked with AETNA Health Insurance Company in the delivery of staff training in MI. Details of staff training were obtained directly from Professor and the company. Confirms the influence of Cardiff research on the policy and practice of the leading US government and professional bodies, as well as in the private sector.
5. The Brief Negotiated Interview, Boston School of Public Health: <http://www.bu.edu/bniart/sbirt-in-health-care/sbirt-brief-negotiated-interview-bni/> [saved as a pdf on 13.08.2013 and available on request from HEI]. Confirms Cardiff strategies at centre of intervention.
6. Project ASSERT: SRIRT in Emergency Care, Boston School of Public Health: <http://www.bu.edu/bniart/sbirt-experience/sbirt-programs/sbirt-project-assert/> [saved as a pdf on 07.11.2013 and available on request from HEI]. Confirms programme has been endorsed by the National Registry of Evidence-based Programs.
7. Individual corroboration from Consultant in Emergency Medicine, Boston Medical Centre, Boston. Confirms the successful application of the research within emergency and public health medicine in the USA.
8. Individual corroboration from MD, The Karolinska Institute & Swedish National Institute Of Public Health. Confirms the successful application of research in Swedish Guidelines for tobacco and alcohol.
9. Report: 'Healthy Child Programme: The two year review', Department of Health, 2009. Available to download at: <http://www.inspiredbybabies.org.uk/Page2NationalrelevantDocsresources/Department%20of%20Health%20The%202%20year%20old%20review%20108329.pdf> Corroborates the research as the evidence base for the Nurse Partnership Programme (see pages 16, 44) [saved as a pdf on 24.07.2013 and available on request from HEI].
10. Individual corroboration from Executive Director, Paediatric AIDS Treatment for Africa. Can confirm the application of the research in this African low resource setting.