PUBLISHING EVIDENCE FOR IMPACT ON PRACTICE

Sarah Davies, Peter Griffiths, Ian Norman
Aim and approach

AIM

- To consider the contribution of academic publication to the development of the evidence base for professional nursing practice

APPROACH

3 brief papers to stimulate discussion which address the following key questions:

- How to improve the quality of your papers to increase the chance of publication in high impact nursing journals?
- How to maximize the impact of your publications on nursing practice in the context of open access publishing and social media?
- Beyond the impact factor! What analytical tools are being developed to measure the impact of publications on nursing and on the world?
Leading the development of nursing practice and policy through successful publication

Ian Norman, Sarah Davies, Peter Griffiths
Why publish your work?

- **Moral duty**
  - What’s the point of research or scholarship without dissemination?
  - To change nursing practice – for the better
- Because you have something important to say
- To promote thought or debate
- To allow examination of your work
- To educate
- **Personal and professional benefit**
  - Practice makes perfect
  - Breaks down a project into manageable chunks
  - Make a public claim on your work
  - Career advancement
  - Fame and fortune!!
How to win a dinghy race?

- Good tactics
  - Making the right decisions about which route to take around the course
  - AND

- Good skills
  - Tapping the power supply (wind)
  - Maximizing boat speed
How to get published?

- **Good tactics**
  - Making the right decisions about
    - which journal?
    - which subjects are topical?
    - what types of papers are attractive to journal editors?
    - who to write with?

- **AND**

- **Good skills**
  - Maximising the quality of your written research reports
    - clear structure
    - good writing style (plain and simple)
GOOD TACTICS
"This is truly the decade of the journal and one should seek to limit their number rather than to increase them, since there can be too many periodicals." 1789
### WOS Nursing Subject Category: Top 20 Ranked Journals

<table>
<thead>
<tr>
<th>Mark</th>
<th>Rank</th>
<th>Abbreviated Journal Title (linked to journal information)</th>
<th>ISSN</th>
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Finding the right topic!

**Buzzwords!**

Number of papers published per year with the corresponding word in the title.

- **Micro** (56,000 papers/year)
- **Nano**
- **Pico**

- **Robot** (6,000 papers/year)
- **Cybernetic**
- **VLSI**
- **Cold Fusion**

- **Carbon** (11,000 papers/year)
- **Climate**
- **Sustainability**

- **Feminism** (900 papers/year)
- **Postmodern**
- **Blog**

Scale: All figures normalized by number of journals in print each year.
Sources: ISI Web of Knowledge, Ulrich's Periodicals Directory.
Papers with 'evidence based' in the title indexed by CINAH

Number of Papers vs. Year

- 1993: 0
- 1994: 0
- 1995: 0
- 1996: 0
- 1997: 0
- 1998: 0
- 1999: 0
- 2000: 0
- 2001: 0
- 2002: 0
- 2003: 0
- 2004: 0
- 2005: 0
- 2006: 13
- 2007: 13
- 2008: 13
- 2009: 13
- 2010: 13
- 2011: 13
- 2012: 13
- 2013: 13
- 2014: 13

**Evidence based**
What do editors want?

- Excitement - “wow” factor
- Important implications for nursing
- Novel/ Original
- Relevance to the readership
- True
- (Clearly written)
- (Engagingly written)
GOOD SKILLS
For research papers: IMRaD

- **Introduction** - Why did I do it?
- **Methods** - What did I do?
- **Results** - What did I find?
- **Discussion** - What might it mean?
Fundamentals

- **Title**...(make subject and method explicit)
  - ‘Towards an understanding of the quality of nursing care’
  - ‘Development and psychometric testing of a quality of nursing care scale for acute mental health inpatient wards’
  - *Computer-aided vs. tutor-delivered teaching of exposure therapy for phobia/panic: randomized controlled trial with nursing students*

- **Abstract**...(structured, include some numbers – not all)

- **Contribution**
  - ...what is known already?
  - ...what the paper adds
…avoid ‘first time in California…’

- …nobody has studied this before in
  - nurses
  - nursing students
  - California, England, Spain, China…

…why is it important?

- ….what might be different?
Good writing style

(plain and simple)
Be clear about ...

- *what* you want to say...
- *who* you are saying it to...
- *why* it is *interesting*...
- *why* it is *important*...

- Find a good paper as a model
- Short words...
- acquire or get
- utilise or use
- attempted or tried
- voluminous or big

*Often the first word that comes to mind is the best.*

- Short sentences
- Short paragraphs
Exercise in plain English...

- ‘Ensure that you have a message that you desire to convey to others and endeavour to articulate it in the clearest manner possible’.

- Can you do better?

- ‘Say what you want to say clearly’
President John F Kennedy was shot and killed by an assassin in Dallas this afternoon.

Hospitals should do the sick no harm

Who wrote that?
Notes on Matters Affecting the Health, Efficiency, and Hospital Administration of the British Army (1858)
PEER REVIEW PROCESS
What happens after submission?

- *IJNS* receives more than 1,200 papers each year
  - But can only publish about 150
  - So tough decisions have to be made

- 70% of all submitted papers ‘screened out’
  - Others go out to peer review
  
  - Search of Medline/Scopus/Reviewer database for 2-3 suitable reviewers
    - Alternative reviewers lined up

  - Editors makes decision with benefit of reviewers’ advice
“Do you want to go out with me?”

- **Accept** without changes [Yes!]
  - (bliss - rare at first round)
- **Accept with minor changes** by editor / author [maybe]
  - (also rare)
- **Major revisions** requested / re-review following major revisions [I’m getting over someone, I’m off men!]
  - (can feel like a rejection)
- **Reject** [No] (she wasn’t worth it!)
MAIN POINTS: Key to successful publication

1. Know what you want to write about and who you are writing for
2. Find a model paper to guide you
3. Spend time structuring your article
4. Write clearly and in plain words
5. Base article in relevant up-to-date international literature
6. Share with others whose writing you respect
7. Resist temptation for salami slicing
8. Send article to an appropriate journal in that journal's style
9. Understand what journal metrics are really saying
10. Have self-belief
Choosing your target journal?
Maximizing the impact of your publications in an open access environment

Peter Griffiths, Ian Norman, Sarah Davies
Beyond scientific dissemination…
From citation to impact…
Do high-impact journals always publish high impact papers?

Cumulative contribution of articles with different citation rates to total journal impact.

Seglen, P.O., 1997. Why the impact factor of journals should not be used for evaluating research. Bmj 314 (7079), 497.
Available on commercial and freely available databases
Rates individuals based on career publications
Incorporates both quantity and quality
Productivity and age constraints
More inclusive evidence of usage...

Figure 2: PLOS ALM Comparison of Usage, Downloads, and Citations

Article-Level Metrics for 80,602 PLOS Papers Published until May 20, 2013

- HTML PAGEVIEWS: 199,913,959 (100%)
- PDF DOWNLOADS: 49,450,006 (24.7%)
- CROSSREF CITATIONS: 481,771 (0.2%)
What is impact?

Influence in areas beyond the scientific community such as:
- the economy
- society
- quality of Life
- culture
- health care
What isn’t impact?

Dissemination is NOT impact

There should be positive change – or BENEFIT

Need to demonstrate:
- your dissemination has had benefit
- evidence of reach and significance
- clear link between original research and subsequent impact confirmed by independent sources

*Dissemination must reach beyond academic circles…*
Holy grail for impact?

- demonstrate how the nursing research has had a wider impact on nursing policies and practice, and hence led to outcomes that could be valued.
  - influence on policy
  - changes in practice
  - cost savings
  - health gains
- Requires robust estimates of both benefit and evidence of widespread implementation

Hanney, S., Griffiths, P., 2011. Ways of assessing the economic value or impact of research: is it a step too far for nursing research? Journal of Research in Nursing 16 (2), 151-166.
Open access – a tool for dissemination and a pathway to impact?

Based on Griffiths, P., 2014. Open access publication and the International Journal of Nursing Studies: All that glitters is not gold. International Journal of Nursing Studies 51, 689
What is Open Access?

**Green OA**
- author makes the article available for free, usually in an institutional repository or a central repository – e.g. PubMed Central
- Often a post-print version (Author’s Accepted Manuscript)…. most publishers do not allow the publisher’s PDF to be placed in a repository.

**Gold OA**
- fee is paid to publisher to ensure the final published version of the article is freely available. Fees range from £1500-£3000 per article
- Some publishers waive OA charge for authors from low income countries

**Gold OA offered by:**
- ‘OA’ publishers
- ‘Hybrid’ publishers which offers both subscription-based and OA publishing
Drivers to open access publication

Increasing commitment to the principle that publically funded research should be made accessible, for free, to readers. Endorsed by major funding bodies:

- NIH in US, NIHR in UK, EUs Horizon 20/20 programme

Assumption that OA research

- ‘enables the prompt and widespread dissemination of research findings…benefits the efficiency of the research process… drives economic growth… increased public understanding of research’ (HEFCE, March 2014)

To be eligible for submission for post-2014 REF articles accepted for publication after 1 April 2016

- ‘must have been deposited in an institutional or subject repository on acceptance for publication, and made OA within a specified time period’
Green or Gold?

Green OA
- Great advantage to authors of not paying a ‘gold OA’ article processing charge
- Care needed not to break copyright laws (e.g. requests from Research Gate)

Gold OA
- The properly fully published version of the article is freely available to all
- High fees
- Emergence of ‘predatory’ OA journals
  - Sometimes low fees but poor editorial and publishing services
  - Scientific scrutiny of peer-review is a sham
  - List of ‘predatory’ journals is increasingly long
Does OA publishing increase a paper’s impact?

Potential impact on:
- Citation analyses
- Article downloads (usage analysis)
- Methodological challenges of studies
- No demonstrated citation advantage of OA publishing
- May increase article usage by practice communities
  - (Mohr 2012; Davis et al 2008, 2012)

New understanding of impact requires publication metrics which go beyond citations and the IF
Effect of twitter and other communication channels on a paper’s downloads

Summary

- Open access probably doesn’t do much to increase your citation count
  - Traditional measure of scholarly access

- Open access probably does increase access to practice community
  - Pathway to wider impact

- Social media
  - Drives article access
    » More likely to be the public / practice communities?
What can you do to increase the impact of your dissemination?
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<tr>
<th>Title</th>
<th>Cited by</th>
<th>Year</th>
</tr>
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<tr>
<td>Factors influencing turnover and absence of nurses: a research review</td>
<td>207</td>
<td>1997</td>
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<tr>
<td>Developing Flanagan's critical incident technique to elicit indicators of high and low quality nursing care from patients and their nurses</td>
<td>207</td>
<td>1999</td>
</tr>
<tr>
<td>Competence in nursing practice: a controversial concept—a focused review of literature</td>
<td>182</td>
<td>2005</td>
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<tr>
<td>Interprofessional perceptions of health care students</td>
<td>105</td>
<td>2003</td>
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<tr>
<td>The nurse-doctor relationship: a selective literature review</td>
<td>155</td>
<td>1985</td>
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<td>Assessing competence to practice in nursing: a review of the literature</td>
<td>151</td>
<td>2002</td>
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<tr>
<td>The validity and reliability of methods to assess the competence to practice of pre-registration nursing and midwifery students</td>
<td>122</td>
<td>2002</td>
</tr>
<tr>
<td>Mental health care for elderly people</td>
<td>119</td>
<td>1997</td>
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<tr>
<td>Cochrane reviews of educational and self-management interventions to guide nursing practice: a review</td>
<td>118</td>
<td>2006</td>
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<tr>
<td>Work satisfaction, stress, quality of care and morale of older people in a nursing home</td>
<td>111</td>
<td>2002</td>
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But even more important

Above all – do good research –

- ‘research impact ..built on poor quality research (is) unlikely to have reach and significance’

Examining trends in nursing evidence based research and measurements of quality

Sarah Davies, Peter Griffiths, Ian Norman
Nursing: Overall Research Performance

290 Active Peer-Reviewed Academic/Scholarly Journals*

*(Source: Ulrichs, Aug 2015, subject category Medical Sciences – Nurses and Nursing)
Nursing: Overall Research Performance

Field-weighted Citation Impact

- Care Planning
- Advanced and Specialized...
- Research and Theory
- Nutrition and Dietetics
- General Nursing
- Maternity and Midwifery
- Fundamentals and Skills
- Leadership and Management
- Gerontology
- LPN and LVN
- Nursing (miscellaneous)
- Emergency Nursing
- Oncology (nursing)
- Pediatrics
- Issues, Ethics and Legal...
- Assessment and Diagnosis
- Psychiatric Mental Health
- Critical Care Nursing
- Review and Exam Preparation
- Nurse Assisting
- Pharmacology (nursing)
- Community and Home Care
- Medical and Surgical Nursing

Growth

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(Source: Scopus; 2010-2014)
Journal Impact Factor
+ Easy to calculate
- Numerator & Denominator misaligned
- Brief citation window
- Field dependent metric
- Subject to manipulation

Journal Level Impact Metrics

Scopus
- Complex calculation
+ Easy-to-understand value
+ Measures journal prestige
+ Self-citations are limited in effect
+ Available for more journals

SNIP
- Complex calculation
+ Easy-to-understand value
+ Normalized to local citation environment
+ Enables comparison across fields
+ Available for more journals

eigenFOUNDER
- Complex calculation
+ Easy-to-understand value
+ Measures journal prestige
+ Self-citations are limited in effect
+ Available for more journals
The h-index is a citation performance indicator which depends both on the **quantity** (number of papers published) and **quality** (citation impact) of a set of papers.

- **Individual** researchers
- **Groups** of papers

**Other impact measures**
- Journal Usage Factor (JUF)
- Peer review
- F1000Prime
Author measurement and tracking tools – tracking one’s own “impact”

Where are your readers coming from?

Last month, most views came from United States, while your biggest overall audience is from United States.
PUBLISHING EVIDENCE FOR IMPACT ON PRACTICE

KEY MESSAGES
Publishing for impact – key messages

- If you have a message which informs nursing policy or practice then dissemination is a moral duty
  - have self belief
- Identify your target audience
- Communicate your message clearly
- Understand your success
  - dissemination and impact
  - use metrics (but don’t be fooled by them!)
Thank you

Sarah Davies, Peter Griffiths, Ian Norman