Nursing Science: Connecting the Dots

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Connecting the dots: Collaboration in Nursing Science

1. **Why**
2. **Do’s**
3. **Don’t’s**
Collaboration: Why?

Learning from NASA
• Leverages investments in capabilities and technologies
• Leads to expanded stakeholder base
• Is essential for long term viability of human space exploration
• Leads to missions & approaches otherwise not possible
• Includes existing partners
• Increases sustainability and continuity
• Is based on mutual trust and commitment
• Leads to long term continuity in programs and funding
• Power of diversity of ideas
• Can improve with new partners
• Has the opportunity to establish
  • Exploration approaches
  • Scientific capability
  • Technological strengths
Parallels NASA and Nursing Science

- Addressing global challenges
- Addressing large issues, important for mankind
- Are constantly in need of experts and experience
- In need of continuity
- Have ’funding issues’
International collaboration
NASA

• Expanded stakeholder database

• Leverages power of diversity of ideas

• Leverages investment in capabilities and technologies

• Leads missions and approaches otherwise not possible

• Is essential for long turn viability
Collaboration Nursing Science

- Expanded stakeholder database
  - Expanded funding resources, Collaboration with practice
- Leverages power of diversity of ideas
  - New ideas, new approaches from other countries/cultures
- Leverages investment in capabilities and technologies
  - New students, mentors, building theories
- Leads missions and approaches otherwise not possible
  - Multicenter studie, addressing global challenges
- Is essential for long turn viability of nursing science
  - Reduces risk and increases benefits
Increase in the proportion of the world’s papers produced with more than one international author, 1996–2008
Citations per article versus number of collaborating countries

Knowledge, Networks and Nations: Global scientific collaboration in the 21st century, RS Policy document 03/11
EU-Homecare project

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Sweden 5 centers 333 patients
Germany 1 center 24 patients
Netherlands 1 center 84 patients
Italy 1 center 96 patients
US (CA) 1 center 8 patients

4 university hospitals
2 rehabilitation centers
2 regional hospitals
1 cardiology outpatient practice
A Situation-Specific Theory of Heart Failure Self-care

Barbara Riegel, DNSc, RN, CS, FAAN, FAHA; Victoria Vaughan Dickson, PhD, CRNP

Self-Care of Heart Failure Model

Self-care Maintenance

Stage 1 Symptom monitoring and treatment adherence
Stage 2 Symptom Recognition

Self-care Management

Stage 3 Symptom Evaluation
Stage 4 Treatment Implementation
Stage 5 Treatment Evaluation

Self-care Confidence

FIGURE 1. Conceptual model of heart failure self-care. Stage 1 reflects self-care maintenance, a process focused on symptom monitoring and treatment adherence. Stages 2 to 5 reflect self-care management, a process in which patients recognize and respond to their symptoms. Confidence is thought to influence the self-care process in important ways.
Development and testing of the European Heart Failure Self-Care Behaviour Scale

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Middle Range Theory of Self-Care of Chronic Illness

Riegel, Jaarsma, Strömberg, 2012
A Middle-Range Theory of Self-Care of Chronic Illness

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Nearly 50% of adults have one or more chronic illnesses. Self-care is considered essential in the management of chronic illness, but the elements of self-care in this context have not been specified in a middle-range theory. This article describes a middle-range theory of self-care that addresses the process of maintaining health with health promoting practices within the
Connecting the dots: Collaboration in Nursing Science

1. Why
2. Do’s
3. Don’t’s
1. Think about your collaboration model
Models

- Partners-And-Rivals model
- International author model
- Network theory
The **give none model**

- expect others to earn respect based on the actions of those persons.
- Persons joining a collaborative team must prove what they can do and how they are valuable to the group to gain respect and continue working with the group.

The **give all model**

- provide others with respect
- Team may lose or maintain when already established teams invite a new group or team to join.
Collaboration Model

Organized

Centralized

Distributed

Spontaneous

Adapted from Wagner 2000
New ideas
Complementary capabilities

Adapted from Wagner 2000
Spontaneous distributed collaboration

- Self-selection of collaborators
- Collaborator offers new ideas or complementary capabilities
Organized

Spontaneous

Centralized

Distributed

Share locally available resources
Patient data
Networks

Adapted from Wagner 2000
Spontaneous centralized Collaboration

- Self-organize “spontaneously” into collaborative teams
- Bottom-up

For example
- Share patient data, facilities, questionnaires
  - Pool data
  - Collect and compare same data
Self-Care around the world

Patient Education and Counseling

journal homepage: www.elsevier.com/locate/pateducou

Self Management

Comparison of self-care behaviors of heart failure patients in 15 countries worldwide

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Joint research funding
Joint data sources
Organized distributed Collaboration

• Needed by the circumstances of research or funding
• To gain access to data or results coming from a single source (e.g. database., large study cohorts)
• Requirements set out by the institution funding the research. (e.g. European money)
Organized or top down

Spontaneous or bottom up

Centralized

Distributed

Mega science
Collaborate around central facility

Adapted from Wagner 2000
Organized centralized Collaboration

Collaborate around central facility

For example

• Equipment
• Big data
• Data from large cohorts or registries
Organized

Centralized

Distributed

Spontaneous

Joint research funding
Joint data sources
New ideas
Complementary capabilities

Mega science
Collaborate around central facility
Share locally available resources
Patient data
Networks

Adapted from Wagner 2000
Connecting the dots: Collaboration in Nursing Science

1. Why
2. Do’s
3. Don’t’s
2. Find good collaboration partners

- Goal oriented
- Contribute to the expertise of the group
  - Content
  - Morale
  - ‘Dreamers and do-ers’
- Generous (but realistic)
- Successful
- Think different
3. Be open
Connecting the dots: national and international collaboration

1. Why
2. Do’s
3. Don’t’s
What does not work?

1. Ignore practical differences
2. Ignore cultural differences
3. Think more is better
Practical issues in international and multisite collaboration

- Contracts
- Expectations
- Authorship
- Workload
- Finances
- Languages, translations, validations of questionnaires
- Measurement issues ‘Pounds and kilo’s’
Cultural issues in international and multisite collaboration

- Academia and clinical practice
- Nurse/ doctor /fysio /...
- Men / women
- Resources
- Exercise habits
Concerns in translation

• Use of expressions
  
• E.g. Thrist scale:
  
• ’feels like cotton in the mouth’
Problems in Cross-Cultural Use of the Hospital Anxiety and Depression Scale: “No Butterflies in the Desert”

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Abstract

Objective: The Hospital Anxiety and Depression Scale (HADS) is widely used to screen for anxiety and depression. A large literature is citable in support of its validity, but difficulties are increasingly being identified, such as inexplicably discrepant optimal cutpoints and inconsistent factor-structures. This article examines whether these problems could be due to the construction of the HADS that poses difficulties for translation and cross-cultural use.
evaluate whether investigators have handled the HADS with appropriate sensitivity to issues. The goal is to evaluate whether non-equivalence of the HADS across languages and cultures might explain problems in the generalizability of cutpoints and consistency of factor-structures that have been reported.

Issues Raised in the Recent Literature Concerning the HADS

Vodermaier et al’s [8] review noted a troublingly broad, inconsistent range of optimal cutoffs obtained across studies, ranging from 8–22 for total score and 5–11 for depression and anxiety subscales. Singer et al [9] also noted varying cutpoints between studies for the depression subscale, and suggested recalculation of different cutpoints for distinct groups of patients. Carey et al [10] reported a wide range of recommended thresholds in their recent review of validation studies performed in cancer patients. A Danish study [11] unexpectedly found lower mean HADS scores in a sample of breast cancer patients relative to women of the general population, a result that challenges either the presumed greater levels of depression among cancer patients than in the general population, or the validity of the HADS as a means of establishing relative levels of depression.

Cosco et al’s recent review [12] of 50 studies concluded that factor-structures of the HADS varied across studies and within populations, with the particular factor solutions ranging from one to four factors, with findings dependent upon the specific analytic

...and feel relaxed.” A number of items are ambiguous as to whether they refer to actual level of negative affect or to a comparison with ‘usual’.

We would add that when it comes to translating the HADS, it might prove difficult to preserve the comparability of positive versus reverse worded items, as well as the equivalence of the varying response key options across languages. Paralleling the problems of patients completing the HADS, translators might simply overlook these transitions, fail to capture them adequately in a second language, or they might improvise in an effort to compensate for problems that were recognized.

**Four Different Dutch Versions of the HADS**

Our concerns about translation and cross-cultural use of the HADS were prompted when we discovered four different Dutch versions of the HADS [15–18]. The four Dutch versions have different content for five (items 5, 7, 9, 11 and 13) of the 14 items, different response options in nine items (items 1, 2, 3, 4, 5, 7, 10, 11 and 14), different ranges of scores (0–4 or 1–3) and different timeframes (one week versus four weeks). Yet, we could find no indication in the published studies depending on a Dutch translation of the HADS that these multiple versions existed or which version was used, either among primary research studies using one of the versions, or in secondary discussions of integrations of results of the primary studies. The finding of four...
3. Do not think: More is always better
• Collaborations over 20......
Why collaborate in nursing science?

- Seeking excellence
- Building and testing theories, advancing science
- The benefits of joint authorship
- Capacity building
- Political potential
- Interesting
- Learning other cultures
Scatterplot
Fill the scatterplot
Connecting the dots: To fill the scatterplot
Connecting the dots: To fill the scatterplot

More

Connected

Targetted
No man is an island, entire of itself; every man is a piece of the continent.

John Donne