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LINCOLN

**Integrating online communities and social networks  
with computerised treatment for insomnia: a  
qualitative study of service user and multiprofessional  
primary health care perspectives**

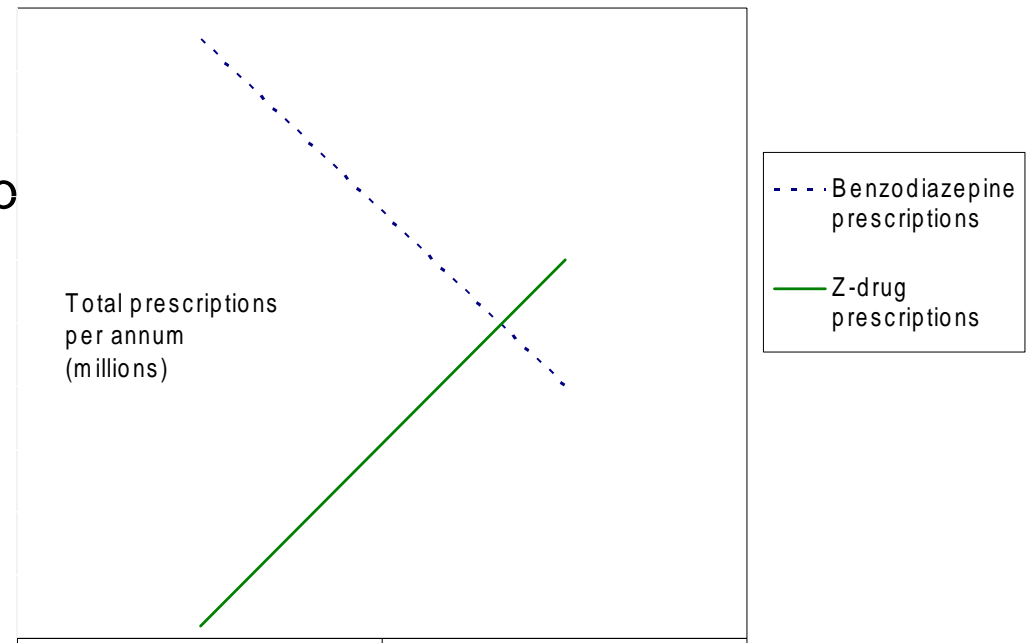
**Prof A. Niroshan Siriwardena, Jo Middlemass, Dr  
Zowie Davy, Dr Kate Cavanagh, Dr Conor Linehan,  
Prof Kevin Morgan, Prof Shaun Lawson**



AN Siriwardena / Lincoln School of Health and Social Care / 3-4 September 2012

# Insomnia

- Common
- Comorbid
- Quality of life, work
- Treatment
- Cognitive behavioural therapy for insomnia (CBTi)
- Computerised CBTi
- Lack of trained providers
- Computerised CBTi: uptake/adherence



Dyas JV et al. Patients' and clinicians' experiences of consultations in primary care for sleep problems and insomnia: a focus group study. *BJGP* 2010; **60**: 329 -333.

# ENACT: Exploring social Networks for Augmenting CCBT



3 October 2010 Last updated at 00:21

## Tackling insomnia through Twitter

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**By Mark Ward**  
Technology correspondent, BBC News

**Insomniacs will soon be getting help to overcome sleeplessness via social networks.**

Researchers aim to find out if networks such as Twitter and Facebook can enhance existing treatments for insomnia, depression and anxiety.

While some of these are already computer-based they typically involve a patient using the system in isolation.

Persistent access to friends, family and therapists may prolong the beneficial effects of treatment.

### **Computer aid**

Many people who suffer bouts of insomnia are helped in their recovery by using Cognitive Behavioural Therapy (CBT) through which they learn to avoid the patterns of activity and thought that make them poor sleepers.

Some therapists use computer-based learning exercises as a way to embed lessons about more positive patterns of behaviour.

Dr Shaun Lawson, a reader in computer science at Lincoln University who is directing the research project, said existing PC-based CBT packages had not kept up with the changing ways that people use computers.

[www.lincoln.ac.uk](http://www.lincoln.ac.uk)



# Aims

- ❑ To explore patient and professional perspectives
- ❑ Attitudes, expectations and beliefs towards online health care programmes
- ❑ explore participants' preferences for content, style and information disclosure to health professionals or fellow sufferers

# Interviews

- Semi-structured interviews and focus groups (clinicians)
- Topic guide
- NVivo8
- Thematic analysis

# Results

- ❑ 28 patients and 23 health professionals
- ❑ Metathemes:
  - ❑ Trust
    - ❑ Trust in the programme
    - ❑ Trust in the patient-professional relationship
    - ❑ Trust in online peer support
- ❑ Functionality

# Trust in the programme

- Evidence of effectiveness
- Accredited and non-commercial
- Professional advocacy

*Yes if I thought something was useful and I thought that there's reasonable evidence to back it up then I would feel happier to recommend it and perhaps more confident in suggesting it to people.*

*(GP17: GP principal, male)*

# Trust in patient-professional relationship

- Part of the package of care
- Feedback to professional carers
- Direct access to online treatment

I think if it was a programme like on prescription, go away I'd like you to do this [...] and come back and see me. That would be fine because you know that it's continuing care. It's not like off you go and don't come back.

(Patient22, female, aged 23 years)



# Trust in online peer support

- Sharing information anonymously
- Information security and stranger danger
- User homophily
- Asynchronous vs. synchronous communication
- Lurking versus sharing
- Moderation of posts

I think I'd be a bit reluctant if I didn't know them. They'd have to be friends [...] but I don't know about strangers, and I don't think [husband] would be happy with me talking to strangers in the night or whatever. (Patient02: female aged 45 years)

# Functionality

- Information needs
- Information formats
- Interactive, individualised and easily navigable
- Timing

I'd quite like e-learning to be interactive so you're doing things along the way rather than just reading so y'know having simple puzzles or something, have a picture of a bedroom with various things in it and say which of these things are not conducive to you having a good night's sleep,

# Conclusions

- ❑ Social networks provide new opportunities for healthcare delivery
- ❑ Involve users in the design of novel health technologies
- ❑ These opportunities need to be rigorously tested
  - ❑ Software developed: Sleepful
  - ❑ Preliminary testing complete
  - ❑ Feasibility (non-randomised) study

Middlemass J, Davy Z, Cavanagh K, Linehan C, Morgan K, Lawson S, Siriwardena AN. Integrating online communities and social networks with computerised treatment for insomnia: a qualitative study of service user and primary health care professional perspectives. *British Journal of General Practice* 2012 (in press)

# ENACT project partners



- ❑ University of Lincoln: Lincoln School of Computing (LiSC) and Lincoln School of Health and Social Care (LSHSC)
- ❑ Loughborough University
- ❑ Sussex University
- ❑ Ultrasis

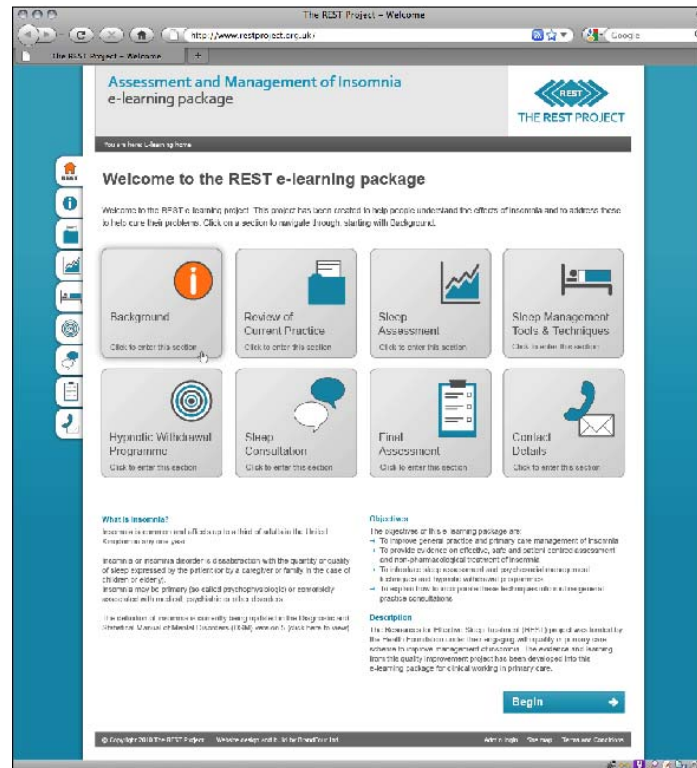
# CBTi e-learning

Contact: [nsiriwardena@lincoln.ac.uk](mailto:nsiriwardena@lincoln.ac.uk)

Website: <http://www.restproject.org.uk/>

E-learning:

<http://elearning.restproject.org.uk/>





**Thank you**

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