



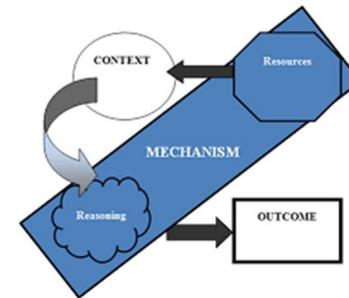
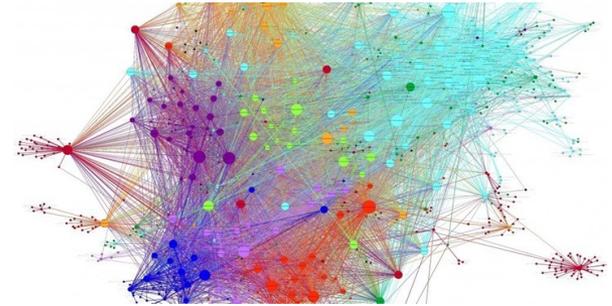
# Complexity in Health Improvement

Evaluating the implementation of the *San Patrignano* recovery model in Scotland

Martin Anderson

# Some key terms

- **Social network analysis:** patterns of ties (relationships) between nodes (people) and explain behaviour by network composition/structure
- **Realist process eval.:** evaluating complex interventions by examining how mechanisms are influenced by context
- **Recovery enterprise:** supportive accommodation, social enterprises, peer support, employment training



# What is the object of my study?

---

- Evaluating the implementation of a recovery enterprise in South Ayrshire – opened March 2018
- *River Garden*:
  - Three years accommodation
  - Alcohol and drug free environment
  - Social enterprise provide routines, work, and training
- Views employment and social reintegration as solutions to the systemic marginalisation and stigma that lead to relapse
- Self-funding through social enterprise (long-term aim)
- An adaption of the *San Patrignano* model

# River Garden



**NEWS**

Home | UK | World | Business | Politics | Tech | Science | Health | Family & Education

Scotland | **Scotland Politics** | Scotland Business | Edinburgh, Fife & East | Glasgow & West

## Scotland's recovery village where addicts become role models

NEWS

23rd March 2018

### First ever drug rehabilitation village opens its doors



By Fiona McKay  
News reporter

News • Scottish News • Drugs

### Scots drugs and alcohol 'recovery village' set up to help people escape grip of addiction

New residents are brought into the community every six weeks.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.



# San Patrignano to River Garden

---

- Transferred:
  - Peer mentors with lived experience
  - Drug-free social environment
  - Use of social enterprise to provide structured routines, meaningful work, vocational training
  - A 3-year programme
- Adaptions:
  - Includes alcohol problems
  - Semi-permeable boundaries and integration with surrounding community
  - Max 40 residents instead of 1,500

# Some key info about River Garden

---

- Aimed at those with a history of failed treatment episodes and low recovery capital
- Self-referral: must take initiative and show motivation
- Free: no funding required but must contribute voluntary work
- No counselling, therapy, groups
- Not a treatment centre or rehab but 'wellbeing centre' or 'residential training and social enterprise' – not classified as health and social care
- Social enterprises include café, woodworking, mail order chocolate, vegetable stall

# Aims and research questions

---

- Evaluate the implementation of the model in Scotland
- Understand how contextual factors influence how the intervention is implemented and adapted
- Explore how changes in social network are related to changes in identity and behavior
- Theorise the factors that lead to different outcomes for intervention participants
- Is the model suitable for the Scottish context?

# Method

---

- **Sample:** residents and frontline staff
- **Quant data:**
  - Mapping social networks
  - Likert scales measuring addiction beliefs / motivations
  - Routinely collected admissions data (demographics, drug use and treatment history)
- **Qual data:**
  - Qualitative interviewing
  - Participant observation
- **Longitudinal:** data collected from up to five waves
  - Pre-entry -> 3 months -> 6 months -> 12 months -> Drop-out

# Addiction Beliefs Inventory

---

- Assessment of beliefs about addiction / problem AOD use
  - Disease
  - Free will
  - Responsibility
  - Causes
- Diversity of beliefs among residents?
- Do resident beliefs converge with staff over time?
- Are beliefs associated with outcomes?

## **ASSESSING THE DIVERSITY OF PERSONAL BELIEFS ABOUT ADDICTION: DEVELOPMENT OF THE ADDICTION BELIEF INVENTORY**

Douglas A. Luke, Ph.D.,<sup>1,\*</sup> Kurt M. Ribisl, Ph.D.,<sup>2</sup>  
Maureen A. Walton, Ph.D.,<sup>3</sup> William S. Davidson, Ph.D.<sup>4</sup>

|    |   |
|----|---|
| 1  | An addicted person can control their use  |
| 2  | Alcoholics/Addicts can learn to control their drinking/using                        |
| 3  | Addicted persons are capable of drinking/using drugs socially                       |
| 4  | Treatment can allow alcoholics/addicts to drink/use socially                        |
| 5  | A drinking/drug problem can only get worse  |
| 6  | Recovery is a continuous process that never ends                                    |
| 7  | To be healed, addicted persons have to stop using all substances                    |
| 8  | Alcoholism/Drug abuse is a disease  |
| 9  | Alcoholics/addicts are not capable of solving their drink/drug problem on their own |
| 10 | An alcoholic/addict must seek professional help                                     |
| 11 | A recovering addict should rely on other experts for help and guidance              |

# Circumstances, Motivations and Readiness Scale

---

- Assessment of reasons for entering residential treatment
  - External conditions
  - Inner reasons
  - Perceived need for treatment
- Do people have different reasons for applying?
- Trends of people with certain motivations having different outcomes?

## **Circumstances, Motivation, Readiness, and Suitability (The CMRS Scales): Predicting Retention in Therapeutic Community Treatment**

George De Leon\*  
Gerald Melnick  
David Kressel  
Nancy Jainchill

*Center for Therapeutic Community Research (CTCR)  
National Development and Research Institutes, Inc. (NDRI)  
New York, New York*

### **CIRCUMSTANCES**

- |    |  |                            |
|----|--|----------------------------|
| 1. | I am sure that I would go to jail if I didn't enter treatment.   | 1----2----3----4----5----9 |
| 2. | I am sure that I would have come to treatment without the pressure of my legal involvement.  | 1----2----3----4----5----9 |
| 3. | I am sure that my family will not let me live at home if I did not come to treatment.  | 1----2----3----4----5----9 |
| 4. | I believe that my family/relationship will try to make me leave treatment after a few months.  | 1----2----3----4----5----9 |
| 5. | I am worried that I will have serious money problems if I stay in treatment.   | 1----2----3----4----5----9 |
| 6. | Basically, I feel I have too many outside problems that will prevent me from completing treatment (parents, spouse/relationship, children, loss of job, loss of income, loss of education, family problems, loss of home/place to live, etc.). | 1----2----3----4----5----9 |

# Routinely collected data

- Admissions and progress reviews
- Research access granted with participant consent
- Demographics, health, substance use, treatment, support, strengths, assets
- Compare characteristics to national treatment seeking population
- Are outcomes patterned by demographics, problem severity?



Resident application form

## Applicant information

|                       |  |
|-----------------------|--|
| Name                  |  |
| Address               |  |
| Contact phone numbers |  |
| Email address         |  |
| Housing status        |  |
| Date of birth/age     |  |
| Marital/family status |  |
| Spouse/Partner        |  |
| Children              |  |
| Sexual orientation    |  |

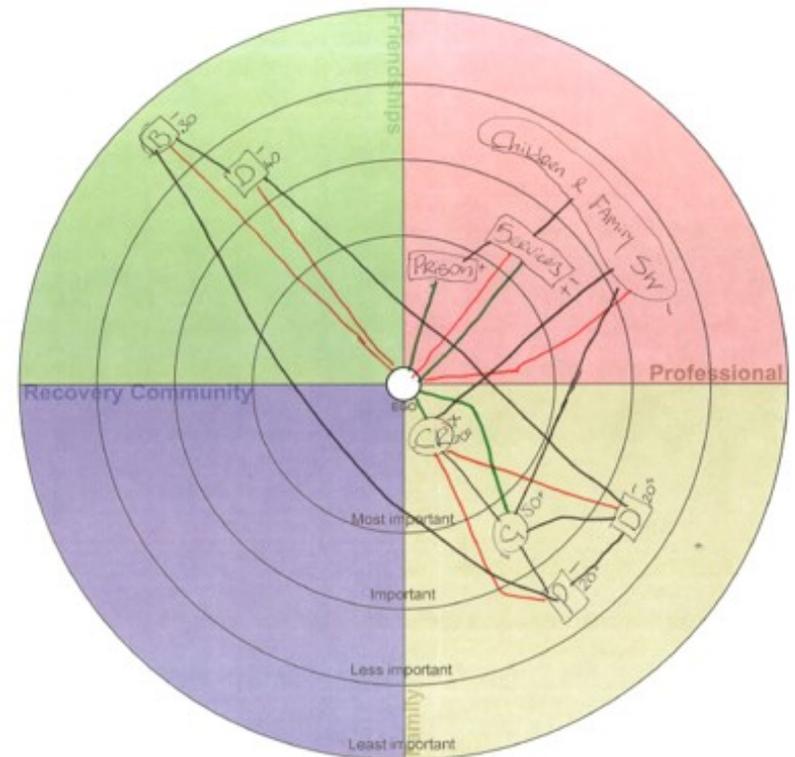
## Six steps in quality intervention development (6SQuID)

Daniel Wight,<sup>1</sup> Erica Wimbush,<sup>2</sup> Ruth Jepson,<sup>3</sup> Lawrence Doi<sup>3</sup>

adequately cover step 6,<sup>4 33</sup> but it is worth re-stating that often the most practical way to collect evidence of effectiveness with limited resources is through a before and after survey, or by using routinely collected data. If possible, a control group

# Network map

- Mapping the structure and composition of personal network
- Participant-aided sociogram: an interactive participatory mapping exercise in a qualitative interview
- Can compare these at different timepoints and see the *influence of the intervention on the network*



# Qualitative analysis of network maps

---

- **Qualitative structural analysis**
- Form qualitative propositions about the structure and meaning
- Write these up as 'memos'
- Thematically analyse and integrate with analysis of the interview

**FQS** FORUM: QUALITATIVE  
SOCIAL RESEARCH  
SOZIALFORSCHUNG

Volume 16, No. 1, Art. 9  
January 2015

## How to Do Qualitative Structural Analysis: The Qualitative Interpretation of Network Maps and Narrative Interviews

*Andreas Herz, Luisa Peters & Inga Truschkat*

**Key words:**  
qualitative  
structural analysis;  
structural  
interpretation; ego-  
centric network  
maps; narrative  
interview; social  
network analysis;  
qualitative network  
research

**Abstract:** To analyze how actors are embedded in social structures, network research is increasingly using qualitative methods, sometimes in combination with standardized approaches. So far, the development of a method for qualitative structural analysis remains a desideratum. Using the example of the analysis of an ego-centric network map and a narrative interview, we conceptualize, explicate and substantiate a qualitative analysis procedure which does justice to the standards of structural analysis as theoretical and methodological stances taken by social network analysis. Based on this example, we design qualitative procedures (sequential analysis, sensitizing concepts, memos) to analyze network maps and narrative data. To do so, we adapt concepts from formal network analysis. Our proposal for this qualitative structural analysis (QSA) is thus a combination of the analytical perspective of structural analysis and analytical standards taken from qualitative social research.

### Table of Contents

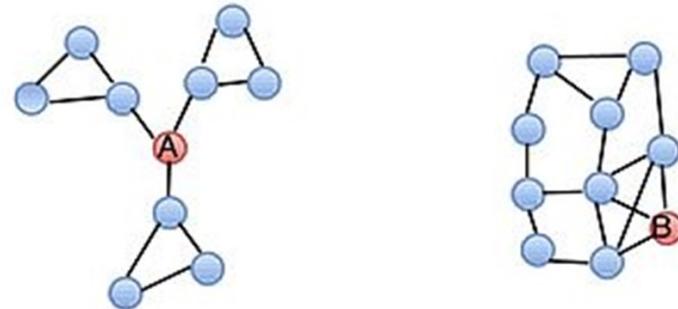
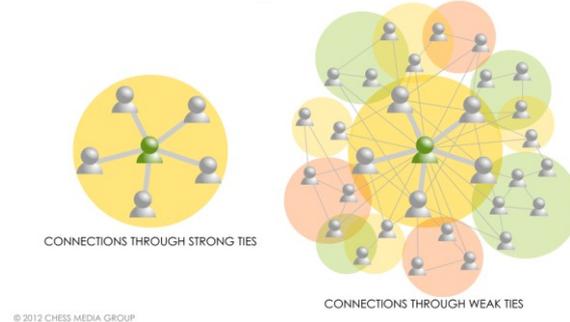
1. Introduction
2. Qualitative Network Analysis: On the Need for a Methodological Concretion
3. The Embeddedness of Career Transition Services—The Empirical Field and Our Data Collection Procedure
4. Qualitative Structural Analysis of the Network Map
5. Qualitative Structural Analysis of the Interview

# Quantitative measures of social capital

## Key social capital concepts

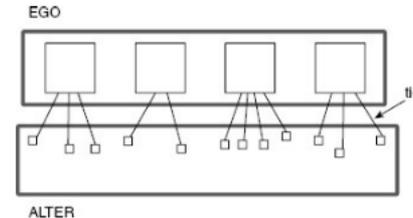
- Bonding capital: trust, support, obligation – indicated by **strong ties** and *network closure*
- Bridging capital: diverse opportunities and information – indicated by **weak ties** and *structural holes*
- E.g. is behaviour constrained by dense networks of close ties or is there freedom to bridge between weak ties?
- What is the effect of an intervention on network structures?

The Strength of Weak Ties



# More advance quant analysis

- **Multilevel models** used when data varies at multiple levels (e.g. grades/classroom, voting/states)
- Alter is level1, ego is level2
- Put all egonets into a single database
- **Multilevel logistic regression:** probability being ranked close



| Ego = $i$ | Alter = $j$ | Drug use frequency $y_{ij}$ | Ego female = $x_{2i}$ | Alter female = $x_{1j}$ | Female Homophily $x_{2i}x_{1j}$ |
|-----------|-------------|-----------------------------|-----------------------|-------------------------|---------------------------------|
| 1         | 1           | 10                          | 1                     | 1                       | 1                               |
| 1         | 2           | 1                           | 1                     | 0                       | 0                               |
| 1         | 3           | 15                          | 1                     | 1                       | 1                               |
| 2         | 1           | 19                          | 0                     | 1                       | 0                               |
| 2         | 2           | 2                           | 0                     | 0                       | 0                               |
| 2         | 3           | 7                           | 0                     | 1                       | 0                               |
| 2         | 4           | 10                          | 0                     | 0                       | 0                               |
| 3         | 1           | 11                          | 1                     | 0                       | 0                               |
| 3         | 2           | 12                          | 1                     | 0                       | 0                               |
| 3         | 3           | 9                           | 1                     | 1                       | 1                               |
| 3         | 4           | 13                          | 1                     | 0                       | 0                               |



Fixed effects:

segment\_CurrentFamily  
 segment\_CurrentFriendships  
 segment\_CurrentProfessional  
 Segment\_CurrentRecovery community  
 Gender\_CurrentMale

| Estimate | Std. Error | z value | Pr(> z )     |
|----------|------------|---------|--------------|
| 3.3656   | 1.0215     | 3.295   | 0.000985 *** |
| 1.8401   | 1.1066     | 1.663   | 0.096334 .   |
| 1.8480   | 1.0349     | 1.786   | 0.074135 .   |
| 1.6298   | 1.1322     | 1.439   | 0.150025     |
| -1.2918  | 0.8407     | -1.536  | 0.124426     |

# Longitudinal – progress so far

|   | Wave 1: pre-entry | Wave 2: < 3 months | Wave 3: ~ 6 months | Wave 4: 12-15 months | Wave 5: drop out |
|---|-------------------|--------------------|--------------------|----------------------|------------------|
| 1 | ✓                 | x                  | ✓                  | ...                  |                  |
| 2 | ✓                 | ✓                  | x                  | x                    | ...              |
| 3 | ✓                 | ✓                  | x                  | x                    | ✓                |
| 4 | ✓                 | x                  | ✓                  | ...                  |                  |
| 5 | ✓                 | x                  | x                  | ✓                    | ...              |
| 6 | ✓                 | x                  | ✓                  | ...                  |                  |
| 7 | ✓                 | ✓                  | ...                |                      |                  |
| 8 | ...               | ...                |                    |                      |                  |

- All at wave 1 (retrospective)
- Three at wave 2
- Three at wave 3
- Three pending for wave 4
- One at wave 5
- Two pending for wave 5
- Data can be collated into waves even if not captured from all at each wave

# Observations from initial fieldwork

---

- Insights into early implementation
- Four of first eight residents have left (three of the seven recruited)
- Subgroups and social influence
- Vulnerability of early implementation
  - Resources still being developed
  - Norms, values, routines still being established
  - Direction of social influence
- Patterning of outcomes by baseline characteristics?

# Observations from initial fieldwork (cont.)

---

- Solid core of residents left and routines becoming established
- More social enterprises being developed and training/development opportunities
- Addiction beliefs: 12-step concepts e.g. 'character defects' – is recovery just learning work skills or does it require a radical transformation of the self?
- Key hypothesis: importance of developing a strong core to before more challenging residents are absorbed

# Initial CMOCs

## The craft of interviewing in realist evaluation

Ana Manzano  
University of Leeds, UK

- CMOCs developed from initial fieldwork
- Conduct final interviews with staff at end of fieldwork to test and refine

| Context  | Mechanism   | Outcome  |
|--|---|--|
| Networks with lots of using peers                          | Geographic distance leads to feeling of safety                | New social network supportive of recovery        |
| Networks include supportive family                         | Geographic distance leads to feeling of isolation             | Desire to return to familiar setting             |
| Immersion in prior value systems (prison, AOD subcultures) | Paired with peer-mentor who is respected for lived-experience | Internalises the values modelled by peer-mentor  |
| Multiple new resident arriving at once                     | New residents form closer relations with each other           | Residents influence community values and culture |

# References

---

- Borgatti, S. P., Jones, C. and Everett, M. G. (1998) 'Network Measures of Social Capital', *Connections*, 21(2), pp. 27–36. doi: 10.1111/j.1467-9663.2010.00632.x.
- Burt, R. (2001) 'Structural Holes versus Network Closure as Social Capital'.
- Crossley, N. et al. (2017) 'Social Network Analysis for Ego-Nets: Introduction', in *Social Network Analysis for Ego-Nets*, p. 208. doi: 10.4135/9781473911871.
- Herz, A., Peters, L. and Truschkat, I. (2015) 'How to Do Qualitative Structural Analysis: the Qualitative Interpretation of Network Maps and Narrative Interviews', *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 16(1). doi: 10.17169/FQS-16.1.2092.
- Pawson, R. and Tilley, N. (2004) 'Realist Evaluation', pp. 1–36.